# Amplify Desmos Math
# NEW YORK

GRADE
1
Volume 3

## Teacher Edition Sampler

**Inside you'll find:**

- Pre-publication Teacher Edition lessons that cover NYC Foundational Standards

Amplify Desmos Math NEW YORK

# Grade 1

**Teacher Edition Sampler**

## About Amplify

Amplify is dedicated to collaborating with educators to create learning experiences that are rigorous and riveting for all students. Amplify creates K–12 core and supplemental curriculum, assessment, and intervention programs for today's students.

A pioneer in K–12 education since 2000, Amplify is leading the way in next-generation curriculum and assessment. All of our programs provide teachers with powerful tools that help them understand and respond to the needs of every student.



Cover illustration by Caroline Hadilaksono.


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# Dear reviewer,

Welcome to your Amplify Desmos Math New York Teacher Edition sampler!

We're thrilled you're considering our program. Amplify Desmos Math New York combines strong pedagogy, beautiful design, and forward-looking collaborative technology to deliver a classroom experience that keeps students engaged and asking productive questions.

We developed the program around the idea that a structured approach to problem-based instruction taps into students' curiosity and helps develop lasting grade-level understanding for all students. Each lesson offers opportunities for teachers to build on students' comprehension, connect their ideas, develop their fluency, and empower them to ask questions, explore, and make discoveries. Our mission is for your students to learn math—and to love learning math!

Here's what you can expect to find:

- Interactive lessons that blend paper-based and digital learning. These include:
  - Lessons that drive classroom discussions so students can work toward a shared understanding and a shared sense of community.
  - Responsive Feedback that interprets student responses in context and encourages perseverance and revision.
  - Easy-to-follow lesson plans tested in classrooms across the country, with clear teaching suggestions and strategies, including Math Language Routines.
- Practice problems that support fluency and help students review previous topics.
- Recommended differentiation moves that meet the needs of diverse learners.
- Diagnostic, formative, and summative assessments, along with lesson-level checks for understanding.

Amplify and New York City have a long history of partnering to provide equitable, high-quality instruction to our next generation of leaders. We look forward to continuing this partnership with New York City Public Schools in elementary school mathematics.

**Jason Zimba and the**
**Amplify Desmos Math team**

# Unit 1 Adding, Subtracting, and Working With Data

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

# Unit 2 Addition and Subtraction Story Problems

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

# Unit 3 Adding and Subtracting Within 20

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

# Unit 4 Numbers to 99

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

# Unit 5 Adding Within 100

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

# Unit 6 Measuring Lengths of Up to 120 Length Units

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

# Unit 7 Geometry and Time

Grayed-out lesson indicate lessons that do not focus on the Foundational Standards. These lessons are not included in this sampler.

Amplify Desmos Math **NEW YORK**

GRADE 1

# Unit 4

## Numbers to 99

Teacher lesson plans from Unit 4 are included here to enable your review of Amplify Desmos Math New York content that demonstrates coverage of the **Operations and Algebraic Thinking (NY-1.OA)** and **Number and Operations in Base Ten (NY-1.NBT)** foundational areas. We only included lessons in this unit that focus on the Foundational Standards.

Lessons in this unit include content that is pre-publication. We have included placeholder boxes and text to help you understand where final content and text will be placed. These lessons will be updated to match the design of Unit 1 provided in the Teacher Edition Sampler, Volume 1.

Lessons included in this unit include:

- **Lessons 4.01 – 4.09**
- **Lesson 4.11 – 4.16**
- **Lessons 4.18 – 4.22**

# Unit at a Glance

**Unit Investigation**

Launch the unit with this engaging mathematical task!

## Assess and Respond

### A Pre-Unit Check (Optional)

Learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1.

NY-1.NBT.2
MP7

## Unit Investigation

### 1 Investigate: Game Points

**How can you organize and count your points?**

Consider different ways to organize and count points when playing a fluency game.

Building Toward NY-1.NBT.1
MP1 MP7 MP8

## Sub-Unit 1

### 2 Meeting Yara

**Organizing and Counting Collections in Groups of 10**

Explain and compare strategies for organizing and counting collections of objects in which the total is a multiple of 10.

NY-1.NBT.1
MP7

### 3 It's a Match

**Matching Different Representations of the Same Multiple of 10**

Interpet different base-ten representations of two-digit multiples of 10 to determine the value.

NY-1.NBT.2c, NY-1.NBT.1
MP2 MP3 MP7 MP8

## Sub-Unit 2

### 7 Meeting Prashant

**Organizing and Counting a Collection in Tens and Remaining Ones**

Counting a collection by organizing objects into as many groups of 10 as possible and counting by 10 and then counting on by 1.

NY-1.NBT.1, NY-1.NBT.2c
MP7 MP8

### 8 Curioso Collections

**Representing Two-Digit Numbers With Tens and Ones**

Represent and describe two-digit numbers as amounts of tens and ones.

NY-1.NBT.2 NY-1.NBT.1
MP3 MP7

### 9 Do They Show the Same Number?

**Interpreting Representations of Two-Digit Numbers**

Interpret representations of two-digit numbers, including drawings, words, expressions, and written numerals to determine the value.

NY-1.NBT.2, NY-1.NBT.1
MP2 MP3 MP6 MP7

### 10 Name That Number

**Representing and Identifying Two-Digit Numbers**

Translate between different representations of two-digit numbers, including drawings, words, expressions, and written numerals.

X.XX.X X.XX.X.X
MPX MPX MPX

## Sub-Unit 3

### 14 Steph's Growing Collection

**Comparing Two-Digit Numbers *Using Greater Than* and *Less Than***

Compare 2 two-digit numbers and describe the comparisons using *greater than* and *less than* .

NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.2
MP6 MP7 MP8

### 15 Greater Than, Less Than

**Making Conjectures About Comparing Two-Digit Numbers**

Make and test conjectures about comparing 2 two-digit numbers using place value reasoning.

X.XX.X.X X.X.X.X
MPX MPX

### 16 Mystery Symbols

**Exploring Comparison Symbols**

Connect understanding of greater than and less than to the abstract greater than and less than symbols.

NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.5
MP3 MP6 MP7 MP8

### 17 Steph's Symbols

**Using Comparison Symbols to Make True Statements**

Interpret comparison statements that are missing numbers or symbols and complete them to make true statements.

NY-1.NBT.1, NY-1.NBT.3
MP3 MP4 MP6 MP7

## Summative Assessment

### 21 Collectors Everywhere!

**Interpreting Different Representations of the Same Two-Digit Number**

Interpret equivalent representations of two-digit numbers that have different amounts of tens and ones.

### A End-of-Unit Assessment

Learn about your students' understanding of the concepts and skills in the unit.

NY-1.NBT.1 NY-1.NBT.2
NY-1.NBT.3 NY-1.NBT.4
NY-1.NBT.5 NY-1.NBT.6
MP4 MP6 MP7 MP8

## Assess and Respond

### 4 How Many Cubes?

**Adding and Subtracting a Ten**

Add a ten to and subtract a ten from multiples of 10 within 100.

NY-1.OA.5, NY-1.NBT.2c, NY-1.NBT.4, NY-1.NBT.6
MP7 MP8

### 5 Boris's Thimbles

**Adding and Subtracting Multiples of 10**

Represent and solve story problems that involve adding or subtracting multiples of 10 from multiples of 10.

NY-1.NBT.4, NY-1.NBT.2c, NY-1.NBT.6
MP7 MP8

### 6 How Many Tens?

**Adding and Subtracting Multiples of 10 and Representing Sums and Differences with Equations**

Add and subtract multiples of 10 from multiples of 10 and represent sums and differences with equations.

NY-1.NBT.6, NY-1.NBT.2c, NY-1.NBT.4, NY-1.OA.7
MP3 MP7 MP8

### A Quiz: Sub-Unit 1

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.NBT.2c NY-1.NBT.4 NY-1.NBT.6
MP7

## Assess and Respond

### 11 Connecting With Collectors

**Writing Two-Digit Numbers to Match Different Base-Ten Representations**

Interpret different base-ten representations of two-digit numbers and record the values with written numerals .

NY-1.NBT.1, NY-1.NBT.2
MP6 MP7 MP8

### 12 Steph's New Curioso Cards

**Adding Multiples of 10 and Two-Digit Numbers**

Find the sum of a two-digit number and a two-digit multiple of 10 within 100.

NY-1.NBT.4, NY-1.NBT.2
MP4 MP7 MP8

### 13 I See a Pattern

**Finding 10 More and 10 Less Than a Two-Digit Number**

Find 10 more and 10 less than given two-digit numbers to notice how the digit in the tens place changes.

NY-1.NBT.5, NY-1.NBT.1, NY-1.NBT.2, NY-1.OA.6a
MP7 MP8

### A Quiz: Sub-Unit 2

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.NBT.1 NY-1.NBT.2 NY-1.NBT.4 NY-1.NBT.5
MP7 MP8

## Assess and Respond

### 18 Stephs's Friends

**Writing 2 Different Comparison Statements About the Same Numbers**

Compare two-digit numbers, record the comparisons in two different ways using the > and < symbols, and justify comparison statements.

NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.4
MP3 MP6 MP7 MP8

### 19 A Trip To the Flea Market

**Comparing and Ordering One-and Two-Digit Numbers**

Use place value understanding to compare and order one-and two-digit numbers.

NY-1.NBT.3, NY-1.NBT.1
MP3 MP6 MP7

### A Quiz: Sub-Unit 3

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.NBT.3
MP6 MP7

## Sub-Unit 4

### 21 Kat's Football Cards

**Representing Two-Digit Numbers With Different Amounts of Tens and Ones**

Create equivalent representations of the same two-digit number using different amounts of tens and ones in each representation.

NY-1.NBT.2
MP3 MP6 MP7 MP8

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 1**

# Investigate: Game Points

How can you organize and count your points?

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Find the total amount of groups of 5 and 10 points.
2. **Language Goal:** Compare strategies for organizing and counting points to consider which is most and least helpful. **(Speaking and Listening)**

To build curiosity and interest from the start of the unit, students engage in a non-routine task that elicits multiple strategies and solutions. They apply their own knowledge and language to a new mathematical task. Giving students a non-routine task with multiple answers and solution paths allows them to truly engage in the mathematical practices and invites all students to see themselves as mathematicians. **(MP1)**

Students consider different ways to organize and count points while playing a fluency game. They share and compare strategies to notice which strategies are the most useful and least useful when there are a lot of points to count. **(MP7, MP8)**

In Kindergarten, students counted by tens, and composed and decomposed teen numbers into 10 ones and some more ones. In Unit 3, students described 10 ones as a unit called *a ten* and used this understanding to develop strategies for adding within 20. This investigation provides an opportunity for students to explore different ways to use their understanding of counting to organize and keep track of quantities greater than 20 and find a total amount that increases in increments of 5 or 10.

**Caregiver Connection**

Students might enjoy playing games at home and sharing ideas about how to keep track of and count each player's points. They can be encouraged to share their ideas for recording the points and finding the total amount of points each player has after each round.

## Vocabulary

**Review Vocabulary**

- *a ten*

## Standards

**Building Toward**

**NY-1.NBT.1**

Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

**Mathematical Practices:** MP1, MP7, MP8

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standard: Building Toward: NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Notice and Wonder** routine after hearing the Unit Story read aloud. Because there is no single correct response, this invitational routine allows all students to share their mathematical curiosity about the unit narrative to which they will return throughout the unit.

SE Print inset

Screens X–X

## Activity Pairs | 50 min

Students play a game in which they take turns rolling dot cubes and finding the sum of the 2 numbers. After each round, the player with the larger sum earns 10 points and the player with the smaller sum earns 5 points. Students consider different ways to keep track of their points to determine how many points each player has at the end of each round.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

### Opportunities for Extension (Optional)

This lesson ends with students describing which method they think is the most useful for keeping track of and counting large quantities of points. Students may enjoy the opportunity to compare different counting and addition strategies.

### Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

**This lesson includes:**

- Presentation Screens (for display)
- Student Edition

**Additional required materials:**

- **Unit Story,** *The Collectors*
- **Lesson Resources:** *Two-Column Table Graphic Organizer* PDF, *Investigation Organizer* PDF (optional)
- **Manipulative Kit:** connecting cubes (optional), dot cubes, double 10-frames (optional), two-color counters (optional)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students hear a read aloud of *The Collectors.* They notice and wonder about mathematical situations in the story.

Presentation Screen X


Placeholder for Warm-up Projection

## Launch

X **Display** the cover of the Unit Story, *The Collectors*.

**Use the Think-Pair-Share routine.** Activate students' background and prior experiences by asking, "What are some things you could collect?"

X–X **Read aloud** the Unit Story, found on pages X–X of this Teacher Edition, as you display the illustrations on Screens X–X.

**Use the Notice and Wonder routine.**

**Pause** on Screens 4, 7, and 9. Ask, "What do you notice? What do you wonder?"

## Connect

**Display** Screen 1 of the Unit Story.

**Use the Think-Pair-Share routine.** Ask, "Where did you see math in the story? What do you wonder about the collectors and their collections?"

**Record** students' responses as they share.

**Say**, "In this unit, you will organize and count some collections, just like the collectors in the story. Today, we will play a game where you will organize and count points."

**Students might say . . .**

I notice Boris has lots of thimbles.

I notice that Yara's picks fill up the whole jar.

I wonder why people use guitar picks and not just their fingers.

I wonder if Boris uses his thimbles.

I wonder which of Prashant's cards were hard to find.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 50 min

# Activity How can you count your points?

**Purpose:** Students play a game to explore and compare different ways to organize and count large amounts of points.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Ask,** "Steph saw so many things she could count at the flea market. What are some things Steph could have counted?"

**Say,** "Just like Steph, you could count things you see when you visit new places. You could also count while playing games."

**Use the Think-Pair-Share routine.** Ask, "What are different ways that you have counted points when playing games?"

**Say,** "Today, you will play a new game. You and your partner will take turns rolling 2 dot cubes and finding the sum. After each round, the player with the larger sum earns 10 points. The player with the smaller sum earns 5 points."

**Read aloud** the directions and distribute the Graphic Organizer PDF, *Two-Column Table* and 2 dot cubes to each pair.

**Provide** access to connecting cubes, double 10-frames, and two-color counters.

[A] **Accessibility: Executive functioning** Invite 2 students to demonstrate how to play a round of the game. After both students roll the dot cubes, ask the class which sum is larger. Then review the points each student earned.

### Materials

**Lesson Resources:**
- Distribute the Graphic Organizer PDF, *Two-Column Table* to each pair during the Launch.
- Provide students with access to the *Investigation Organizer* PDF to each pair during the Launch (optional).

**Manipulative Kit:**
- Distribute 2 dot cubes to each pair.
- Provide students with access to connecting cubes, double 10-frames, and two-color counters. (optional)

### Make It Your Own!

It is suggested that students play the game described in the Launch, but students can play another familiar game in which they must keep track of a growing amount of points after each round.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

As students complete the activity, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "How could you record the number of points you earned after the first round?"
- Ask, "What counting patterns might help you figure out the total number of your points?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** different strategies they used to organize and count their points. Select and sequence their responses in the order shown in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:

- "Which way of organizing and counting would be the most helpful if you played the game for 5 more rounds? Why?"
- "Which way of organizing and counting would be the least helpful if you played the game for 5 more rounds?"
- [EL] **Multilingual/English Learners:** Invite students to begin partner interactions by restating their partner's response, in their own words, before adding their own ideas to the discussion.

**Invite students to share** their reflections. Provide the *Investigation Organizer* PDF to students who wish to write or draw their reflections.

**Key Takeaway:** Say, "You found different ways to organize and count the amount of points you earned by using your understanding of counting and making 10. In this unit, you will think more about counting strategies and use what you know to solve problems with larger numbers."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count all or count on by 1 to find the total. | ○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○<br>5, 6, 7, … 28, 29, 30<br>I have 30 points. | **Strengthen:** Ask, "How could you find the total without counting by 1?" |
| Count groups of 10 by 10 and then count on by 1 to find the total. | ○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○ ○○○○○<br>10, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30<br>I have 30 points. | **Strengthen:** Ask, "You counted some groups by 10. Are there any groups you could combine to make more groups of 10?" |
| Combine groups of 5 to make 10 and count by 10. | 5 10 10 5<br>10<br>10, 20, 30<br>I have 30 points. | **Stretch:** Ask, "What addition equation could you write to represent your total points?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Activity **Sample Student Work**

Students will likely represent their answer to the Investigation question in different ways. Because this is the beginning of the unit, there is no expectation for students to organize or count their points in a specific way.

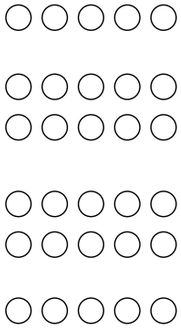
## How can you count your points?

### Sample student responses:

**Sample response 1**

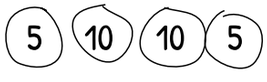
I made piles of counters to represent my points for each round.

**Sample response 2**



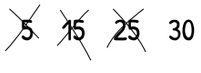
I drew circles to represent my points for each round.

**Sample response 3**




I wrote down the number of my points for each round.

**Sample response 4**




I found the total of my points after each round.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 2**

# Meeting Yara

## Organizing and Counting Collections in Groups of 10

Let's compare ways to organize and count collections.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Organize and count collections of objects that are multiples of 10 within 80.
2. **Language Goal:** Explain and compare strategies for organizing and counting a collection of objects. **(Speaking, Listening, and Writing)**

Students organize and count collections of objects in which the total is a multiple of 10. They share different ways of organizing and counting to recognize that the total is the same, regardless of how objects are organized or counted. Students then organize, count, and compare a different collection of objects to notice that it can be helpful to organize and count by groups of 10. **(MP7)**

### Prior Learning

In Kindergarten, students counted by 1 and 10 up to 100. In Unit 3, students learned that *a ten* is a unit made up of 10 ones. In Lesson 1, students counted out groups of 5 and 10 and explored different ways to keep track of the total amount.

### Future Learning

In Lesson 3, students will explore and interpret different base-ten representations of multiples of 10 within 100.

## Rigor and Balance

- Students build **conceptual understanding** of strategies for counting quantities greater than 20.

## Vocabulary

**Review Vocabulary**

- *a one/ones*
- *a ten*

## Standards

**Addressing**

**NY-1.NBT.1**

**Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.**

**Mathematical Practice:** MP7

| Building On | Building Toward |
|---|---|
| NY-K.CC.1<br>NY-K.CC.5b | NY-1.NBT.2c |

**I can be all of me in math class.**
Steph has an interest that makes her unique. How do you stand out from other mathematicians?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standard: NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 10. As you record the count, students may notice patterns with multiples of 10 and consider why those patterns or structures show up.


Screens X–X

## Activity 1 Pairs | 15 min

Students organize and count a collection of 40 objects to notice that the total number of objects is the same regardless of how they are organized or counted.
**Additional Prep** Assemble: sets of 40 small objects, one set per pair


Screens X–X

## Activity 2 Pairs | 15 min

Students count a collection of 80 objects and compare counting strategies. They notice that it can be helpful to organize large collections into groups of 10 and then count by 10 to find the total.
**Additional Prep** Assemble: sets of 80 small objects, one set per pair


Screens X–X

## Synthesis Whole Class | 5 min

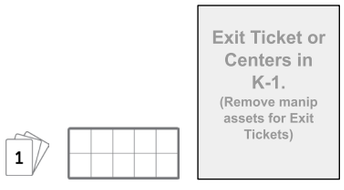
Students review and reflect on why it is helpful to organize and count large quantities by 10.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice how to organize, count, and describe quantities.

- Check It Off, Stage 2
- Counting Collections, Stage 2
- How Close?, Stage 2




Screens X–X

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *The Collectors*
- **Manipulative Kit:** double 10-frames (optional)
- **Classroom materials:** collections of 40 small objects, collections of 80 small objects

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Choral Count

**Purpose:** Students count forward by 10 from 30 to 90 and then backward from 90 to 30 to notice patterns in multiples of 10.

Presentation Screen X


## Choral Count

Count aloud with your classmates by 10, starting with 30.

30
40
50
60
70
80
90

## Launch

**Use the Choral Count routine.**

X-X **Say,** "Let's count by 10, starting at 30 and ending at 90."

**Display** each number as students count.

**Say,** "Now, let's count back by 10, starting at 90 and ending at 30."

**Ask,** "What patterns do you see?"

## Connect

X-X **Record** students' responses as they share. Consider highlighting different patterns using different colors.

**Ask,** "Who can describe a pattern a classmate shared in their own words?"

**Say,** "You will use what you know about counting to organize and count collections of objects."

**Students might say . . .**

I notice that each number has a 0 at the end.

I notice that each number has 2 numbers.

I notice this is like counting by 1 because I see 3, 4, 5, 6, 7, 8, 9.

I notice that the first number changes and the second number stays the same.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Yara's Guitar Picks

**Purpose:** Students compare ways of organizing a collection of 40 objects to recognize that the total amount is the same, regardless of how the objects are organized and counted.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Display** and read aloud page 4 of the Unit Story, *The Collectors*.

**Say,** "When Steph met Yara at the Briarcliff Flea Market, she asked her how many guitar picks were in her collection. Yara said she had just added some to her collection, so she would need to count them to know for sure."

**Display** a collection of 40 objects.

**Say,** "These objects represent the guitar picks in Yara's collection."

**Read aloud** Problems 1 and 2.

**Provide** access to double 10-frames.

[A] **Accessibility: Executive functioning** Invite pairs of students to brainstorm a plan for how they will organize and count the objects before they begin. Circulate as they plan and ask clarifying questions, as needed.

### Materials

Display and read aloud page 4 of the Unit Story, *The Collectors*.

**Manipulative Kit:**
- Provide students with access to double 10-frames (optional).

**Classroom materials:**
- Distribute one collection of 40 small objects to each pair.

## Monitor

Monitor Storyboard Art FPO

****NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what do you need to discuss?"
- Ask, "What tool could you use to organize the objects?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** how they organized and counted the objects. Select students to showcase a variety of ways of organizing and counting, using the *Differentiation* table as a guide. After each pair shares, record the number 40 to show the total number of objects.

**Use the Think-Pair-Share routine.** Ask, "What is the same about how pairs organized and counted the objects? What is different?"

**Key Takeaway: Say,** "You can organize and count a collection in different ways and the total number of objects will be the same."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

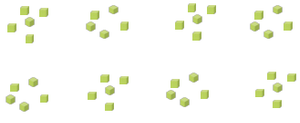
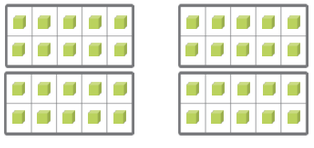
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Organize the objects in a line. |  1, 2, 3… 40 | **Support:** Ask, "How could you organize the objects in a different way?" |
| Organize some or all of the objects in piles. |  5, 10, 15… 40 | **Strengthen:** Ask, "How could you use double 10-frames to organize the objects?" |
| Organize the objects using 10-frames. |  10, 20, 30, 40 | **Stretch:** Ask, "How did organizing the objects in 10-frames help you find the total?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 PJ's Guitar Picks

**Purpose:** Students compare strategies for organizing and counting a collection of 80 objects to notice that counting by 10 is an efficient strategy for counting large quantities.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "After Steph helped Yara count her guitar picks, Yara's friend, PJ, arrived at the flea market. PJ had an even bigger collection of guitar picks than Yara! He asked Yara and Steph to help him count his collection."

**Display** a collection of 80 objects.

**Say,** "These objects represent the guitar picks in PJ's collection."

**Read aloud** Problems 3–5.

**Provide** access to double 10-frames.

### Materials

**Manipulative Kit:**
- Provide students with access to double 10-frames (optional).

**Classroom materials:**
- Distribute one collection of 80 small objects to each pair.

**Short on time?** Consider modifying the activity so that groups share their responses to Problem 5 verbally.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What were some of the ways your classmates organized and counted the objects that represented Yara's guitar picks?"
- Ask, "What tool could you use to organize the objects to count them?"

## Connect

Connect
Storyboard Art
FPO

X–X **[L]** This Connect is structured as the *MLR7: Compare and Connect* routine.

**Invite pairs to share** how they organized and counted the objects. Select and sequence their responses in the order shown in Rows 1 and 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine**. Ask:

- "What is the same about these ways of counting?"
- "What is different about these ways of counting?"
- "Why might someone choose to organize objects into groups of 10?"
- **[EL] Multilingual/English Learners:** Provide sentence frames to support students with partner discussions. For example, display the frames, "These are the same/different because. . . " and "Someone might choose this way because. . . "

**Key Takeaway:** Say, "Organizing objects in groups of 10 is helpful because you can count by 10 to find how many."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Explain how they organize and count by 1. | We organized the objects in lines because we could make sure we counted each one. | **Strengthen:** Ask, "How could you use double 10-frames to organize and count the collection?" |
| Explain how they organize and count by 10. | We organized the objects in groups of 10 because we could count by 10. | **Strengthen:** Ask, "Why did you choose to count by 10?" |
| Explain how they organize and count by 10, including their reasoning. | We organized the objects in groups of 10 because we could count by 10, which is faster than counting by 1. | **Stretch:** Ask, "When might you choose to count a collection by 1? When might you choose to count a collection by 10? Why?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When counting large quantities of objects, organizing the objects into groups of 10 allows counting by 10.

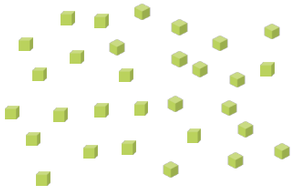
Presentation Screens X–X

Double click to add screen here

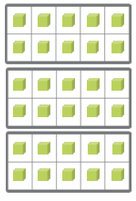
X–X

Summary screen here
(inset 2nd Summary screen, Animation)

A



B



X–X **Ask,** "Both of these collections have the same amount. Which collection do you think you could count more easily? Why?"

**Say,** "When you are counting a large collection, organizing objects in groups of 10 can be helpful because you do not have to say every number as you count the objects."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Organize and count collections of objects that are multiples of 10 within 80.
2. **Language Goal:** Explain and compare strategies for organizing and counting a collection of objects. **(Speaking, Listening, and Writing)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.1, NY-1.NBT.2c*, NY-1.NBT.5* |
| **Spiral Review** | | | |
| | 5 | 1 | NY-1.MD.4 |
| Fluency | 6–9 | 1 | NY-1.OA.7 |

*This problem builds toward the standard shown.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 2 – Add 3 Numbers**
**Pairs** | **15 min** | NY-1.OA.2, NY-1.OA.3

Students add 3 numbers to practice strategies for adding within 20.

**Materials**

- number cards (0–10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Counting Collections


**Stage 2 – Up to 20**
**Pairs** | **15 min** | NY-K.CC.4

Students count a collection of up to 20 objects.

**Materials**

- 5-frames, 10-frames **(Manipulative Kit)**
- collections of objects (up to 20 per pair) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## How Close?

**Stage 2 – Subtract From 20**
**Pairs** | **15 min** | NY-1.OA.6a

Placeholder for Center Icon

Students subtract 3 numbers to practice subtracting within 20.

### Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 4.**

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 2

**Lesson Goal:** Organize and count collections of objects that are multiples of 10 within 80.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Organize the objects in a line and count by 1.

**Respond:**

- **Mini-Lesson** | 15 min
  *Counting Multiples of 10*
- **Lesson 2 Refresh Video**


## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Organize some or all of the objects in equal groups, count some by the number in each group, and count on by 1 for the remaining objects.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 2
  *How Close?*, Stage 1
  *Math Stories*, Stage 5
- **Lesson 2 Practice** | 15 min
- **Item Bank**


## Stretch

Challenge students and extend their learning with these resources.

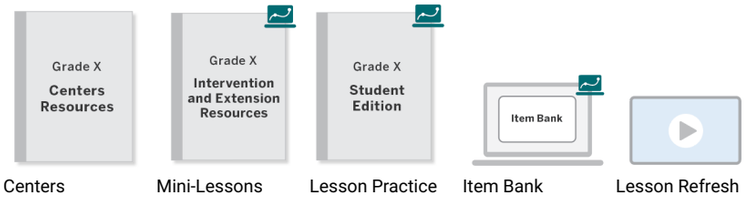
**If Students:** Organize objects in groups of 10 and count all by 10.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

Identify who has been sharing their ideas in class lately. Make note of students whose ideas have not been shared and look for an opportunity for those students to share their thinking in the next lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.



# It's a Match

## Matching Different Representations of the Same Multiple of 10

Let's match different representations of numbers.

**Student Edition pages, Manipulatives, and Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Interpret base-ten representations of two-digit multiples of 10.
2. **Language Goal:** Explain how different base-ten representations show the amount of tens in a multiple of 10. **(Speaking and Listening)**

Students explore and interpret different base-ten representations of multiples of 10, including pictures of towers of 10, connecting cubes, numbers, and words. They sort representations based on the numbers they represent to recognize that multiples of 10 are made up of an amount of tens. They explain how different representations show the same amount of tens. **(MP7, MP8)**

### Prior Learning

In Lesson 2, students organized and counted large collections of objects in different ways. They compared counting strategies and discussed how it can be helpful to organize and count a quantity by 10.

### Future Learning

In Lesson 4, students will explore strategies for adding 10 and subtracting 10 from multiples of 10 within 100. In Lesson 8, students will be introduced to the term *digit* and begin to explore and formally discuss the value of the digits in two-digit numbers.

## Rigor and Balance

- Students build **conceptual understanding** of the base-ten structure of multiples of 10.

## Vocabulary

**New Vocabulary**

- **estimate**
- **tens**

**Review Vocabulary**

- *a ten*

## Standards

**Addressing**

**NY-1.NBT.2c**

**Understand the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).**

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP2, MP3, MP7, MP8

**Building Toward**

**NY-1.NBT.2**

**I can be all of me in math class.**
Yara and PJ both love guitar picks. What is an interest you and another mathematician share?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

**Standards:** NY-1.NBT.2c, NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students are introduced to the **Estimation Exploration** routine, in which they are asked to estimate a quantity. This routine gives students a low-stakes opportunity to share a mathematical claim and the thinking behind it, as well as an opportunity to revise their estimates when given more information. **(MP2, MP3)**


Screens X–X

## Activity 1 Small Groups | 15 min

Students do a card sort to make connections between different representations of multiples of 10. During the Connect, the class creates a *Representations of Tens* chart to discuss the matches. Students can refer to this chart during activities throughout Sub-Unit 1.

**Additional Prep** Cut out: Activity 1 PDF
Prepare: *Representations of Tens* chart


Screens X–X

## Activity 2 Pairs | 15 min

Students match pictures of towers of 10 cubes with the multiple of 10 they represent. Then they use towers of 10 cubes to represent 50. Students notice they can determine the amount of tens in a number by counting by 10 or by noticing a relationship between the amount of tens and the written number.


Screens X–X

## Synthesis Whole Class | 5 min

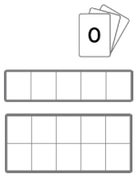
Students review and reflect on how different representations show the same multiple of 10.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Check it Off, Stage 2
- Counting Collections, Stage 2
- How Close?, Stage 2





Screens X–X

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, *Representations of Tens,* Visual Display PDF, *Representations of Tens* (sample)
- **Manipulative Kit:** connecting cubes
- **Classroom materials:** chart paper, markers, *Representations of Tens* chart

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

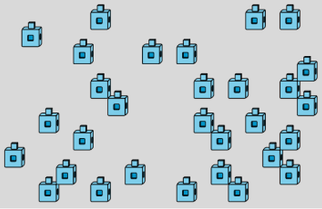
Whole Class | 10 min

# Warm-Up Estimation Exploration

**Purpose:** Students estimate the number of connecting cubes represented first as individual cubes in a scattered arrangement and then organized as tens and ones to begin thinking about how to represent and count tens.

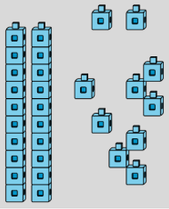
Presentation Screen X


**Image A**



Double Click To Edit

**Image B**



## Launch

X-X **Display** Image A.

**Use the Estimation Exploration routine.**

**Say,** "Today we are doing a new warm-up called *Estimation Exploration*. Look at the image and make a guess about how many cubes there are without counting."

**Ask,** "About how many cubes do you think are in this image? What is your guess? How did you come up with your guess?"

## Connect

X-X **Record** students' responses as they share.

**Say,** "When you make a guess about how many using what you notice, you are making an **estimate**."

**Display** Image B.

**Ask,** "This image shows the same number of cubes. Based on the second image, does anyone want to revise their **estimate**? What made you change your mind?"

**Say,** "You will see many different representations of numbers as you work today, including connecting cube representations."

**Students might say . . .**

Image A: I think there are about 25 cubes because it looks like a lot.

Image A: I see more than 10 cubes, so I think there are probably about 20.

Image B: At first, I thought there were 25, but the 2 towers make 20, and there are more than 5 other cubes. My new estimate is 28.

Image B: First, I guessed 20, but now I see there are more than 20. I want to change my estimate to 30.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Small Groups | 15 min

# Activity 1 Representations of Tens

**Purpose:** Students match different representations of the same number to build understanding of the structure of multiples of 10.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Arrange** students in groups of 3.

**Distribute** the Activity 1 PDF cards.

**Use the Notice and Wonder routine.** Have students describe what they notice and what questions they have about the cards.

**Read aloud** Problems 1 and 2.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by having pairs start with only the cards showing cube towers and tens. After matching those cards, provide the third sub-set of cards showing the numbers written in words.

### Materials

**Lesson Resources:**
- Distribute one set of pre-cut cards from the Activity 1 PDF to each group.

**Classroom materials:**
- Use chart paper and markers to create the *Representations of Tens* chart and display during the Connect.

**Short on time?** Consider omitting Problem 2, and share responses for Problem 3 as a class.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "Describe what this card shows. What number is represented?"
- Ask, "Find a card that is like this card in some way. Does that card represent the same number?"

**[L] MLR1: Stronger and Clearer Each Time**

After groups complete Problems 1 and 2, read aloud Problem 3. As groups meet to discuss Problem 3, encourage listeners to ask clarifying questions, such as:

- "Can you tell me more about . . .?"
- "How did you know . . .?"
- **[EL] Multilingual/English Learners:** Invite students to begin group interactions by restating another groups' response, in their own words, before adding their own ideas to the discussion.

## Connect

Connect Storyboard Art FPO

X–X **Display** the *Representations of Tens* chart, and say, "Let's use this chart to record cards that represent the same number."

**Invite pairs to share** their card groupings, starting with 10. For each group of cards, have students explain how they know the cards represent the same number. Continue recording all of the representations in order from 20–90. Consider attaching the cards that show cube towers directly to the chart, rather than drawing cube towers.

**Say,** "A ten is a group of ten ones. When there is more than 1 ten, we call them **tens**."

**Ask,** "How do each of these representations show the amount of tens?"

**Key Takeaway:** Say, "The numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 are all amounts of tens. The amount of tens in each number can be represented in different ways."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

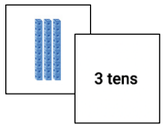
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Sort cards into groups with some cards remaining unsorted. |  Both of these cards have 3 tens, so they have the same value. | **Support:** Ask, "Look at one of the cards you have not sorted yet. What do you notice about this representation that seems similar to another group of cards you have sorted?" |
| Sort cards into the same group based on a common digit. | This card has 3 towers. This card has 3 tens. 30 has a 3 in it. So, all of these cards belong in the same group. | **Strengthen:** Ask, "You matched these cards because they each have a 3. What does the 3 represent on each of these cards?" |
| Sort cards into the same group by recognizing that each card shows the same amount of tens. | This card shows 3 towers of 10. This card says "3 tens". When you count by tens 3 times — 10, 20, 30 — you get 30. So, all of these cards have 3 tens. | **Stretch:** Ask, "If you wanted to add a fourth card to each group, can you think of another way that you could represent each number?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Finding the Match

**Purpose:** Students match numerical representations of multiples of 10 to pictures showing amounts of tens and represent 50 with cube towers to recognize and represent the base-ten structure of multiples of 10.

Presentation
Screens X–X


## Launch

Launch
Storyboard Art
FPO

X–X **Read aloud** the directions for Problems 4–7. Have students work for 2–3 minutes. Then read aloud Problems 8 and 9.

[A] **Accessibility: Conceptual processing** Guide processing by having students refer to the *Representations of Tens* chart to support or check their thinking.

**Note:** Display the *Representations of Tens* chart for the remainder of the unit.

### Materials

**Manipulative Kit:**
- Distribute connecting cubes to each pair.

**Classroom materials:**
- Display the *Representations of Tens* chart for students to use as a reference during the activity.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 8**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what is the activity asking you to do?"
- Ask, "How can you figure out how many cubes are shown in each representation?"

## Connect

Connect
Storyboard Art
FPO

X–X **Invite pairs to share** strategies for Problem 8. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Ask,** after each pair shares, "How did this pair figure out how many tens are in 50?"

**Key Takeaway:** Say, "You can figure out how many tens are in a number by counting by 10 or by using what you notice about the number."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

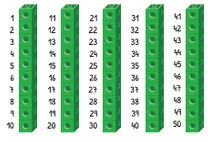
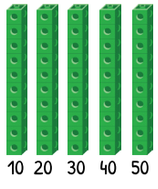
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Build 5 towers of 10 cubes by counting by 1. |  | **Strengthen:** Ask, "How many cubes are in each tower? What is another way you can count as you build to show 50?" |
| Build 5 towers of 10 cubes by counting by 10. |  | **Strengthen:** Ask, "You counted by 10 and figured out there are 5 tens in 50. What is another way you can figure out how many tens are in 50?" |
| Build 5 towers of 10 cubes by recognizing that 50 has 5 tens. | I know the 5 in 50 means 5 tens, so I built 5 towers of 10 cubes. | **Stretch:** Say, "You said the 5 in 50 means 5 tens. Talk with your partner about what the 0 in 50 might represent." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

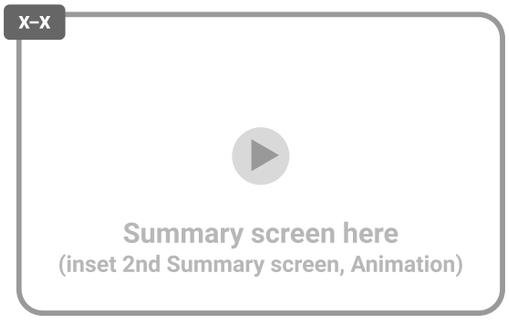
Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** The numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 are composed of amounts of **tens**.

Presentation Screens X–X


X–X




70
seventy

X–X **Use the Think-Pair-Share routine.** Ask, "In what other ways could you represent the number of tens in 70?"

**Say,** "You can represent amounts with numbers, objects, pictures, and words. Each of these representations shows the amount of tens in a number in different ways."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Interpret different base-ten representations of two-digit multiples of 10.
2. **Language Goal:** Explain how different representations show the amount of tens in a multiple of 10. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–5 | 1 | NY-1.NBT.2c, NY-1.NBT.2* |
| **Spiral Review** | | | |
| | 6, 7 | 1 | NY-1.MD.4 |
| Fluency | 8–10 | 1 | NY-1.OA.7 |

*This problem builds toward the standard shown.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 2 – Add 3 Numbers**
**Pairs** | **15 min** | NY-1.OA.2, NY-1.OA.3

Students add 3 numbers to practice strategies for adding within 20.

**Materials**

- number cards (0–10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Counting Collections


**Stage 2 – Up to 20**
**Pairs** | **15 min** | NY-K.CC.4

Students count a collection of up to 20 objects.

**Materials**

- 5-frames, 10-frames **(Manipulative Kit)**
- collections of objects (up to 20 per pair) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## How Close?

**Stage 2 – Subtract From 20**
**Pairs** | **15 min** | NY-1.OA.6a

Placeholder for Center Icon

Students subtract 3 numbers to practice subtracting within 20.

### Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 4.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 3

**Lesson Goal:** Interpret different base-ten representations of two-digit multiples of 10.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Determine if some of the given base-ten representations are the same.

**Respond:**

- **Mini-Lesson** | 15 min
  *Matching Different Representations of the Same Multiple of 10*
- **Lesson 3 Refresh Video**

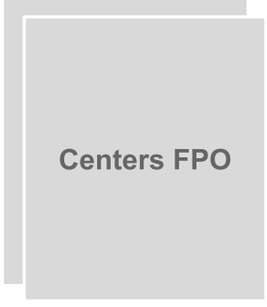

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Determine that different base-ten representations are the same based on a common digit.

**Respond:**

- **Centers** | 15 min
  *Counting Collections*, Stage 2
  *Grab and Count*, Stage 2
  *How Close?*, Stage 2
- **Lesson 3 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Determine that different base-ten representations are the same by recognizing that they have the same amount of tens.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

Are students counting the connecting cubes in each tower to confirm there are 10 cubes? How can you provide opportunities for students to develop an understanding of *a ten* at their own pace?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 4**

# How Many Cubes?

## Adding and Subtracting a Ten

Let's add and subtract a ten.

**Student Edition pages and Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add a ten to and subtract a ten from multiples of 10 within 100.
2. **Goal:** Recognize that counting on or back by 10 can be used to add or subtract a ten from a multiple of 10.
3. **Language Goal:** Describe patterns in a series of sums and differences that increase or decrease by 10. **(Speaking and Listening)**

Students solve *Add To* and *Take From, Result Unknown* story problems involving towers of cubes to explore strategies for adding and subtracting a ten from a multiple of 10 within 100. They first discuss how it can be helpful to think of each addend as an amount of tens in order to add or subtract ten as a unit. Then students add and subtract a ten from a given number more than once to notice patterns in the sums and differences, recognizing that they can count on or back by 10. Although Grade 1 standards indicate that students represent and solve story problems within 20, students have opportunities to explore story problems with larger amounts in this unit so that they engage with place value concepts both in and out of context. **(MP7, MP8)**

### Prior Learning

In Lesson 3, students interpreted different base-ten representations of two-digit multiples of 10 and explained how the different representations showed the same amount of tens.

### Future Learning

In Lesson 5, students will add or subtract more than 1 ten from a multiple of 10.

## Rigor and Balance

- Students build **conceptual understanding** of adding and subtracting a ten to a multiple of 10 within 100.
- Students **apply** their understanding of the base-ten structure of numbers to add and subtract.

## Vocabulary

**Review Vocabulary**

- *a ten/tens*

## Standards

**Addressing**

**NY-1.OA.5**

**Relate counting to addition and subtraction.**

*Also Addressing:* NY-1.NBT.2c
NY-1.NBT.4, NY-1.NBT.6

**Mathematical Practices:** MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-1.OA.1<br>NY-1.NBT.2a | NY-1.NBT.5 |

**I can be all of me in math class.**
Steph explored many collections.
Describe a time you explored something in math class.

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.OA.5, NY-1.NBT.2c, NY-1.NBT.4, NY-1.NBT.6

## Warm-Up Whole Class | 10 min

Students use the **How Many Do You See?** routine, in which they look at and describe the different ways they see the total amount of cubes in base-ten representations of multiples of 10. (MP7)


Screens X–X

## Activity 1 Pairs | 15 min

Students solve *Add To* and *Take From, Result Unknown* story problems involving towers of 10 cubes to explore and share strategies for adding or subtracting a ten from a multiple of 10. They notice that multiples of 10 can be described as amounts of tens and amounts of ones.


Screens X–X

## Activity 2 Pairs | 15 min

Students repeatedly add a ten and then repeatedly subtract a ten from multiples of 10. They look for patterns in the sums and differences to connect adding or subtracting a ten to counting forward or backward by 10.


Screens X–X

## Synthesis Whole Class | 5 min

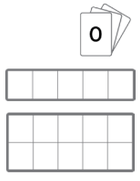
Students review and reflect on strategies for adding and subtracting a ten from a multiple of 10.

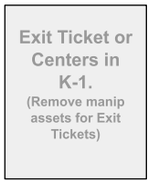

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Check it Off, Stage 2
- Counting Collections, Stage 2
- How Close?, Stage 2




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** sets of towers of connecting cubes (optional)
- **Classroom materials:** *Representations of Tens* chart (from Lesson 3)

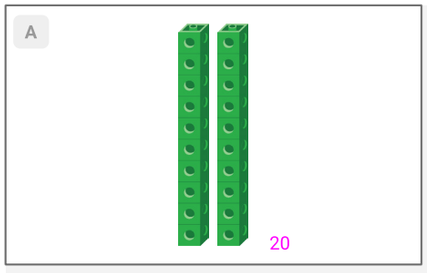
This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

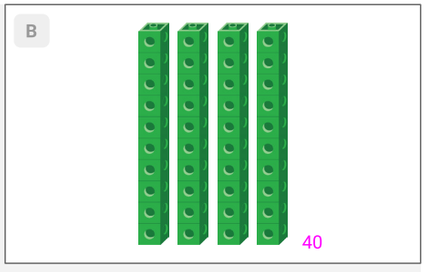
Whole Class | 10 min

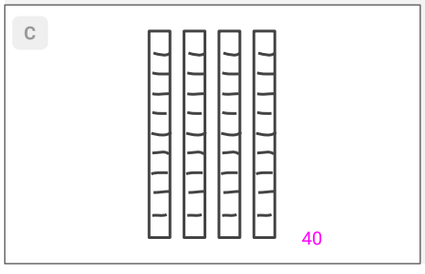
# Warm-Up How Many Do You See?

**Purpose:** Students determine the number of cubes shown in each image to focus on the base-ten structure of the representations and notice that they can count by 10 or use the number of tens they see to find the total.

Presentation Screen X


**Why these images?** These images lend themselves to subitizing with units of 10 or counting by tens.

## Launch

**Use the How Many Do You See? routine.**

**Flash** the first image for 2–5 seconds, and ask, "How many do you see?"

**Say,** "Give me a signal when you have an answer."

**Display** the image again, leaving it displayed to discuss.

## Connect

**Record** 2 or 3 students' responses, and ask, "How did you see them?"

**Repeat** for each image, spending the most time discussing Images B and C.

**Ask,** "How are the 4 tens in Image B different from the 4 tens in Image C?"

**Say** (if not yet mentioned during discussion), "Image B shows the 4 tens as towers of cubes, and Image C shows the 4 tens as drawings of cube towers."

**Students might say . . .**

A: 20. I see 2 towers of 10 cubes.

B: 40. I counted 10, 20, 30, 40.

C: 40. It has 4 towers of 10, just like the last one.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 How Many Cubes?

**Purpose:** Students apply their understanding of the base-ten structure of numbers to solve *Add To* and *Take From, Result Unknown* story problems involving multiples of 10.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

**X–X Say,** "You have been exploring different ways to represent the number of tens in the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90. In this activity, you will use what you know about these numbers to solve some story problems."

**Read aloud** the directions and Problems 1–3.

**Provide** access to connecting cube towers of 10.

**[A] Accessibility: Executive functioning** Vary the task demands by having students solve Problems 1 and 2. Then they solve the additional problem when they have more processing time.

**[EL] Multilingual/English Learners:** Encourage students to make sense of the story problems by discussing their similarities and differences in their primary language before discussing them in English.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Classroom materials:**

- Display the *Representations of Tens* chart (from Lesson 3) throughout the lesson.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What part of the story could you represent first to help you solve?"

## Connect

Connect Storyboard Art FPO

**X–X Display** Problem 2.

**Invite students to share** their responses and strategies for Problem 2. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask, "What is different about these strategies?"

**Say** (if not yet mentioned during discussion), "You can choose to think about the numbers in the problem as a number of tens, 6 tens – 1 ten, or as a number of ones, 60 – 10."

**Key Takeaway: Say,** "When adding and subtracting with 10, 20, 30, 40, 50, 60, 70, 80, and 90, you can think about and describe the numbers as a number of tens or as a number of ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

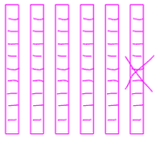
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Represent the story problem with cubes or a base-ten drawing and count the number of remaining cubes to find the difference. |  I took 10 away and counted the cubes that were left. | **Strengthen:** Ask, "How could you figure out how many cubes are left without counting by ones?" |
| Count back 10 to find the difference. | I counted backward by 10 from 60.<br>60 – 10 = 50 | **Strengthen:** Ask, "How could you use what you know about the number of tens in the problem to help you find the difference?" |
| Use base-ten reasoning to find the difference. | 6 tens take away 1 ten is 5 tens, and 5 tens is 50. | **Stretch:** Ask, "How would the number change if you added 2 tens?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Adding a Ten, Subtracting a Ten

**Purpose:** Students add and subtract a ten from multiples of 10 to notice the relationship between adding a ten and counting on by 10, and between subtracting a ten and counting back by 10.

**Presentation**
**Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Read aloud** the directions.

**Say,** "Problems 4–12 build on each other. You will use your answer for Problem 4 to solve Problem 5. Then you will use your answer for Problem 5 to solve Problem 6. You will keep doing this until you finish Problem 12. Then you and your partner will discuss Problem 13."

**Read aloud** Problems 4–13.

**Provide** access to connecting cube towers of 10.

**[A] Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on Problems 4–8 before moving them on to Problems 9–12.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider having half the class solve Problems 4–8 and the other half solve Problems 9–12. Share responses to Problem 13 as a whole group.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 13**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "Act out this problem with cube towers. How many cubes do you have after you add a ten?"
- Ask (for Problems 5–12), "How is this problem like the problem before it? Can you use the same strategy to solve this problem?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Problems 4–12 with the answers recorded.

**Invite students to share** responses to Problem 13.

**MLR8: Discussion Supports — Revoicing**
As students share the patterns they notice, revoice their ideas in the form of a question using mathematical language. For example:

- If a student says, "I noticed the numbers are counting by 10." . . .
- Revoice their ideas by asking, "Are you saying that when adding a ten, you noticed the sum is the next number you say when counting by 10?" Refer to the sequence of numbers on the *Representations of Tens* chart.
- **[EL] Multilingual/English Learners:** Invite students to turn to a partner and restate one of the patterns that was shared in their own words.

**Key Takeaway: Say,** "When you add a ten, the sum is the next number you say when you count by 10. When you subtract a ten, the difference is the number you say when you count back by 10."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Recognize that sums increase and differences decrease. | The sums get bigger. The differences get smaller. | **Support:** Ask, "How much do the sums and differences change each time a ten is added or subtracted?" |
| Recognize a pattern in the number of tens. | The sums each have 1 more ten. The differences each have 1 fewer ten. | **Strengthen:** Ask, "What happens to the value of the number when there is 1 more or 1 fewer ten?" |
| Recognize the sums and differences as numbers said when skip counting by 10. | The sums are the numbers I say when I count by 10. The differences are the numbers I say when I count back by 10 | **Stretch:** Ask, "How would the number change if you added 2 tens?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** To add or subtract a ten and a multiple of 10, you can skip count forward or backward by 10, or think about the starting number as an amount of tens and add or subtract 1 ten from that amount.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

60 + 10 = __

60 − 10 = __

X–X **Say,** "You can write equations to represent adding or subtracting 10 from a number."

**Use the Think-Pair-Share routine. Ask,** "How would you find the number that makes each equation true?"

**Say,** "There are different ways to add or subtract a ten from a number of tens. You can choose the strategy that makes sense to you."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Add a ten to and subtract a ten from multiples of 10 within 100.
2. **Goal:** Recognize that counting on or back by 10 can be used to add or subtract a ten from a multiple of 10.
3. **Language Goal:** Describe patterns in a series of sums and differences that increase or decrease by 10. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.OA.5 NY-1.NBT.2c, NY-1.NBT.4, NY-1.NBT.6 |
| **Spiral Review** | | | |
| | 4, 5 | 2 | NY-1.MD.4 |
| Fluency | 6, 7 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 2 – Add 3 Numbers**
**Pairs** | **15 min** | NY-1.OA.2, NY-1.OA.3

Students add 3 numbers to practice strategies for adding within 20.

**Materials**

- number cards (0–10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Counting Collections


**Stage 2 – Up to 20**
**Pairs** | **15 min** | NY-K.CC.4

Students count a collection of up to 20 objects.

**Materials**

- 5-frames, 10-frames **(Manipulative Kit)**
- collections of objects (up to 20 per pair) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## How Close?

**Stage 2 – Subtract From 20**
**Pairs** | **15 min** | NY-1.OA.6a

Placeholder for Center Icon

Students subtract 3 numbers to practice subtracting within 20.

### Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 4.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 4

**Lesson Goal:** Add and subtract a ten from multiples of 10.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Count by ones to find the sum or difference.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding and Subtracting 10*
- **Lesson 4 Refresh Video**

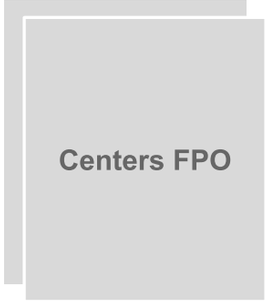

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Count up or back by 10, or add or subtract 1 from the starting number of tens in order to find the sum or difference for each problem.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 2
  *Counting Collections*, Stage 2
  *How Close?*, Stage 2
- **Lesson 4 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

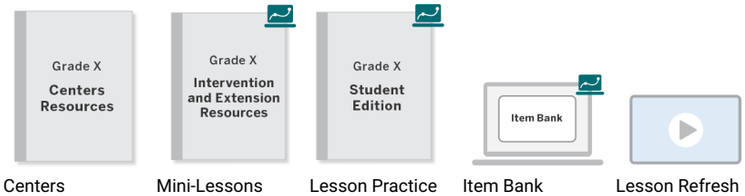
**If Students:** Work flexibly with strategies such as counting up or back by 10 and adding or subtracting 1 from the starting number of tens.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

Reflect on how students listened to one another's ideas today in class. What norms would help each student better attend to their classmates' ideas in future lessons?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 5**

# Boris's Thimbles

## Adding and Subtracting Multiples of 10

Let's add and subtract more than 1 ten.

**Student Edition pages and Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add tens to and subtract tens from multiples of 10 within 100.
2. **Language Goal:** Explain and compare strategies for adding and subtracting multiples of 10 within 100. **(Speaking and Listening)**

Students add and subtract multiples of 10 for the first time. They represent and solve *Put Together/Take Apart, Total Unknown* and *Take From, Result Unknown* story problems about amounts of cubes that are multiples of 10. The amounts are described either as a number of towers of 10 cubes or as the number of cubes. Students share and compare strategies for adding and subtracting the cubes to recognize that they can add and subtract units of 10. **(MP7, MP8)**

### Prior Learning

In Lesson 4, students explored strategies for adding and subtracting a ten from a multiple of 10 in the context of towers of 10 cubes.

### Future Learning

In Lesson 6, students will find sums and differences of multiples of 10 without the context of towers of cubes.

## Rigor and Balance

- Students develop their **conceptual understanding** of adding and subtracting multiples of 10 within 100.
- Students **apply** their understanding of the base-ten structure of multiples of 10 to solve problems with real-world contexts.

## Vocabulary

**Review Vocabulary**

- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

**Add within 100, including**

**• a two-digit number and a one-digit number,**

**• a two-digit number and a multiple of 10.**

**Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.**

**Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten.**

**Relate the strategy to a written representation and explain the reasoning used.**

*Also Addressing*: NY-1.NBT.2c, NY-1.NBT.6

**Mathematical Practices:** MP7, MP8

| Building On | Building Toward |
|---|---|
| **NY-1.OA.1, NY-1.NBT.2a** | **NY-1.NBT.5** |

**I can be all of me in math class.**
Think about the characters in the story. In what ways could collectors be mathematicians?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.4, NY-1.NBT.2c, NY-1.NBT.6,

## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for patterns and make use of the base-ten structure of two-digit numbers to add 10 to and subtract 10 from a multiple of 10. **(MP7, MP8)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students represent and solve *Put Together/Take Apart, Total Unknown* and *Take From, Result Unknown* story problems in which they add or subtract towers of 10 cubes to find the total number of cubes. They explain their strategies to notice that there are different ways to add and subtract tens.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students solve more story problems that involve adding or subtracting multiples of 10 described as either towers of 10 cubes or as a number of cubes. Students share strategies to notice it can be helpful to think about numbers as an amount of tens when adding or subtracting.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on adding and subtracting multiples of 10 and consider how it is useful to think about each number as an amount of tens when finding sums or differences.

SE Print inset

Screens X–X

## Center Pairs| 15 min

Students are introduced to the Center, *Cover Up, Stage 7*, in which they add and subtract a ten from a multiple of 10 to begin to use patterns when adding or subtracting tens from another number.


Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** sets of towers of connecting cubes (optional)
- **Classroom materials:** *Representations of Tens* chart (from prior lessons)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students add and subtract 10 from multiples of 10 within 100 to provide opportunities to reason about the change in the amount of tens.

Presentation Screen X


| A | B |
|---|---|
| 30 + 10<br>40 | 40 + 10<br>50 |
| **C** | **D** |
| 50 − 10<br>40 | 40 − 10<br>30 |

**Why these problems?** These expressions lend themselves to making use of the base-ten structure of numbers to reason about each sum or difference.

## Launch

**Use the Number Talk routine.**

X–X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you determined it."

## Connect

X–X **Record** sums and differences and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions B and D.

**Ask,** "What is the same about how you solved Expressions B and D? What is different about how you solved Expressions B and D?"

### Students might say . . .

A: I know 30 + 10 is 40 because if I count 1 more ten after 30 it is 40.

B: If I keep counting by tens, 1 more ten is 50.

C: If I count back 1 ten from 50, I get 40.

D: 40 − 10 means 1 less ten. There are 4 tens in 40, so 1 less would be 3 tens, which is 30.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Counting Thimbles

**Purpose:** Students represent and solve *Put Together/Take Apart, Total Unknown* and *Take From, Result Unknown* story problems about towers of 10 cubes to explore different strategies for adding and subtracting tens.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

**Say,** "Boris keeps some of his thimbles in boxes. He makes drawings to show how many thimbles are in each box. If he adds thimbles to a box, he adds to his drawing. If he takes some thimbles out of a box, he crosses some out in his drawing."

**Read aloud** the directions and Problem 1–3.

**Provide** access to connecting cube towers of 10.

[A] **Accessibility: Conceptual processing** Guide processing by inviting students to create drawings to match each problem. This will help students organize the total number of tens in the pictures and provide a starting point for determining the total number of cubes.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Classroom materials:**

- Display the *Representations of Tens* chart (from prior lessons) throughout the lesson.

**Short on time?** Consider omitting Problem 3.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "How could you represent Boris's drawings?"

## Connect

Connect Storyboard Art FPO

X–X **Invite pairs to share** strategies for Problem 1. Select and sequence strategies using Rows 2 and 3 in the *Differentiation* table.

**Say,** "There is more than 1 way to find the total number of cubes. When the objects are already grouped in tens, 1 strategy is to count by 10 to find the total."

**Key Takeaway: Say,** "There are different ways to add or subtract 2 numbers that are a number of tens."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

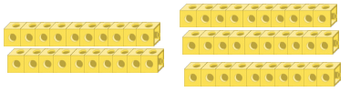
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the total number of tens. |  2 + 3 is 5. There are 5 tens. | **Support:** Ask, "Now that you know the total number of tens, how can you find the total number of cubes?" |
| Count some or all of the cubes by 1 to find the total. | 2 tens is 20. 21, 22, …, 50 | **Strengthen:** Ask, "What other ways can you count to find the total number of cubes?" |
| Count by 10 to find the total. | 10, 20, 30, 40, 50 | **Stretch:** Ask, "How would the total change if there was 1 more tower of 10?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Towers and Cubes

**Purpose:** Students solve more story problems about cubes in which one of the amounts is a number of towers of 10 and the other amount is a multiple of 10 to notice that they can unitize single cubes into tens to find sums and differences.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

**Materials**
**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

X–X **Say,** "Some of Boris's drawings had cubes that were not in towers of 10."

**Read aloud** the directions and Problems 4–6.

**Provide** access to connecting cube towers of 10.

## Monitor

Monitor
Storyboard Art
FPO
**NOTE:* The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "How could you represent Boris's drawing?"

## Connect

Connect
Storyboard Art
FPO

X–X **Display** Problem 4.

**[L] MLR7: Compare and Connect**

Invite pairs to share strategies for Problem 4. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:

- "How are these strategies alike?"
- "How are these strategies different?"
- **[EL] Multilingual/English Learners:** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing.

**Say** (if not yet mentioned during discussion), "Both strategies represent 30 as 3 tens. This can be helpful because you can add the tens. 6 tens plus 3 tens is 9 tens, and 9 tens is 90."

**Key Takeaway: Say,** "When adding or subtracting 2 numbers that are numbers of tens, it can be helpful to think about how many tens are in each number and add or subtract the number of tens."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

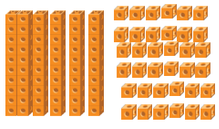
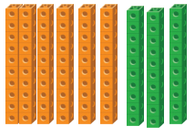
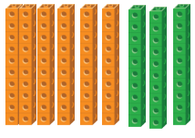
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count the tens and then the ones. |  10, 20, 30, 40, 50, 60, 61, 62, 63, …, 90 | **Strengthen:** Ask, "What do you know about 30 cubes? How could you use that to help you find the sum in a different way?" |
| Find the total number of tens and count by 10 to find the total number of cubes. |  30 is 3 tens. 60, 70, 80, 90 | **Strengthen:** Ask, "Why did you choose to think of both amounts as groups of tens?" |
| Find the total number of tens and use place value reasoning to find the total number of cubes. |  30 is 3 tens. 6 tens and 3 tens is 9 tens. 9 tens is 90. | |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

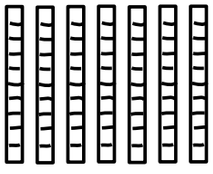
**Lesson Takeaway:** Sums and differences of multiples of 10 can be found by adding or subtracting units of 10.

Presentation Screens X–X

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)



X–X **Use the Think-Pair-Share routine.** Ask, "One of Boris's drawings shows 7 towers of 10 cubes. Boris took some thimbles out of the box and now there are 50 thimbles left in the box. How many towers of 10 should Boris cross off in his drawing? How do you know?"

**Say,** "You will continue to find sums and differences of numbers that are a number of tens in the next lesson."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add tens to and subtract tens from multiples of 10 within 100.
2. **Language Goal:** Explain and compare strategies for adding and subtracting multiples of 10 within 100. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 2 | NY-1.NBT.4, NY-1.NBT.2c, NY-1.NBT.6 |
| **Spiral Review** | | | |
| | 3, 4 | 1 | NY-1.MD.4 |
| Fluency | 5, 6 | 2 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Let's Play

## Cover Up, Stage 7

**Purpose:** Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

**Presentation Screens X–X**


### Materials

**Manipulative Kit:**

- Distribute number cards (multiples of 10) and two-color counters to each pair.
- Provide students with access to connecting cubes (optional).

**Centers Resources:**

- Display the Directions and Gameboard A during the Launch.
- Distribute Gameboard A or B to each pair.

## Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Gameboard A.

**Demonstrate** how to play *Cover Up, Stage 7*. While demonstrating:

- **Say,** "You will play *Cover Up* today."
- **Say,** "First, I will draw a card and then choose to add 10 to or subtract 10 from the number on the card." Draw a card, make a choice to add or subtract, and then have students share the sum or difference.
- **Say,** "Now I find the sum or difference on the Gameboard and cover the number with a counter."
- **Say,** "Decide who will use yellow counters and who will use red counters. The first player to cover 5 in a row on the Gameboard wins."

**Provide** access to connecting cube towers of 10.

## Monitor

Monitor Storyboard Art FPO

****NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** strategies students use to find the sums and differences.

## Connect

Connect Storyboard Art FPO

X–X **Display** Gameboard A with red counters covering each number in the first column except 10, and cover a few additional numbers on the Gameboard. Display Number card 20.

**Use the Think-Pair-Share routine.** Ask, "Would you add or subtract 10 from this number? Explain your thinking."

**Say** (if not yet mentioned during discussion), "All the numbers in the first column on the Gameboard are covered except 10. If you subtract 10 from 20, you can cover 10 and win the game."

**Key Takeaway:** Say, "Looking at the numbers on your Gameboard before deciding to add or subtract 10 can help you cover 5 in a row more quickly."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**


**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Count on or back by 1. | 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30<br>or<br>20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10 | **Support:** Ask, "What counting strategies could you use if you did not want to count by ones?" |
| Count on or back by 10. | 20, 30<br>or<br>20, 10 | **Strengthen:** Ask, "How could you figure out 10 more or 10 less without counting by 10?" |
| Use place value reasoning. | 20 is 2 tens. 1 more ten is 3 tens which is 30.<br>or<br>20 is 2 tens. 1 fewer ten is 1 ten which is 10. | **Strengthen:** Ask, "Why did you choose to think about the number as a number of tens?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 5

**Lesson Goal:** Add and subtract tens from multiples of 10.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Count on by 1.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding and Subtracting Multiples of Ten*
- **Lesson 5 Refresh Video**

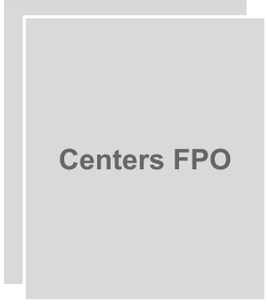

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Count on or back by 10 or add or subtract one number of tens from another.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 2
  *Cover Up*, Stage 7
  *How Close?*, Stage 2
- **Lesson 5 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Work flexibly with different strategies for adding and subtracting tens.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

In the next lesson, students will add and subtract tens in contexts unrelated to cubes and towers. Based on what you observed in today's lesson, what support might students need to be successful?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 6**

# How Many Tens?

## Adding and Subtracting Multiples of 10 and Representing Sums and Differences with Equations

Let's find sums and differences of tens and represent them with equations.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add and subtract multiples of 10 within 100.
2. **Goal:** Represent sums and differences of multiples of 10 with equations.
3. **Language Goal:** Compare strategies for adding and subtracting multiples of 10 within 100. **(Speaking and Listening)**

Students add and subtract multiples of 10 within 100, without the context of cubes and towers for the first time. Students are not given pre-made towers of 10 to allow them the opportunity to explore unitizing as a strategy for adding and subtracting multiples of 10. Students share and compare strategies for adding and subtracting tens and represent sums and differences with equations. **(MP7, MP8)**

### Prior Learning

In Lesson 5, students added and subtracted multiples of 10 described as either towers of 10 cubes or as a number of cubes. They compared strategies including unitizing single cubes into units of 10 to add and subtract tens.

### Future Learning

In Lesson 7, students will count collections of objects that represent two-digit numbers that are not multiples of 10. In Lesson 12, students will represent and solve story problems in which they add and subtract multiples of 10 from two-digit numbers that are not multiples of 10.

## Rigor and Balance

- Students develop their **conceptual understanding** of adding and subtracting multiples of 10 within 100.
- Students **apply** their understanding of the base-ten structure of multiples of 10 to find sums and differences within 100.

## Vocabulary

**Review Vocabulary**

- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.6**

**Subtract multiples of 10 from multiples of 10 in the range 10-90 using**

**• concrete models or drawings, and**

**• strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.**

**Relate the strategy used to a written representation and explain the reasoning.**

*Also Addressing*: NY-1.NBT.2c, NY-1.NBT.4, NY-1.OA.7

**Mathematical Practices:** MP3, MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-1.NBT.2a | NY-1.NBT.5 |

**I can be all of me in math class.**
Steph likes to count and organize her Curioso cards. What do you like to count?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.6, NY-1.NBT.2c, NY-1.NBT.4, NY-1.OA.7

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **True or False?** routine, in which they determine whether a series of equations are true or false and justify their responses. All addends are multiples of 10. **(MP3, MP7)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students add multiples of 10 represented in different ways. They share and compare strategies for solving and notice there are different ways to add two amounts of tens.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students subtract multiples of 10 represented in different ways. They share and compare strategies for solving and notice that some of the strategies used to add numbers of tens can also be used to subtract amounts of tens.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students reflect on how they can apply what they know about addition within 10 to find sums of multiples of 10.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Check It Off, Stage 3
- Cover Up, Stage 7
- What's Behind My Back?, Stage 4


Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson..

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** connecting cubes (optional)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up True or False?

**Fluency**

**Purpose:** Students analyze equations involving multiples of 10, without evaluating all expressions, to develop strategies for using place value understanding to add numbers of tens.

Presentation Screen X


A

$40 + 10 = 50$

True

B

$50 = 40 + 10 + 10$

False

C

$50 + 10 = 60$

True

D

$70 = 50 + 20$

True

**Why these problems?** These equations lend themselves to comparing the amounts of tens on both sides of the equal sign.

## Launch

**Use the True or False? routine.**

X–X **Display** 1 equation at a time.

**Say,** "Give me a signal when you know whether the statement is true and can explain how you know."

## Connect

X–X **Record** 2 or 3 students' responses, asking for their reasoning and allowing others to agree or disagree. Keep each equation displayed as you progress to the next.

**Repeat** with each equation.

**Ask** (if not yet mentioned during discussion), "How could knowing that Equation C is true help someone to know if Equation D is true?"

**Students might say . . .**

A: True. If I count 1 more ten after 40, it is 50.

B: False. Since I know that 40 plus 1 more ten is 50, then 40 plus 2 more tens cannot be 50.

C: True. If I count by tens, 60 comes after 50.

D: True. I know 20 is 2 tens. Since 50 plus 1 ten is 60, then 50 plus 2 tens is 70.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Adding Tens

**Purpose:** Students add tens represented in various ways and share their strategies to notice there are different ways to find the sum of 2 amounts of tens.

Presentation
Screens X–X


## Launch

Launch
Storyboard Art
FPO

X–X Say:

- "Milton likes counting his coupons and noticed that many of the other collectors at the flea market seem to like to count their collections too. Milton has also noticed that different people count and represent their collections in different ways."
- "In this activity, you will see different ways of counting and representing amounts."

**Read aloud** the directions and Problems 1–4.

**Provide** access to connecting cubes.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider omitting Problem 4.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about the representation?"
- Ask, "What are you trying to find?"

**[A] Accessibility: Executive functioning** Check for understanding of the task by asking students to share different ways they can show their thinking and what their final product should include. For example, an equation and an underlined sum or difference.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** Problem 3.

**[L] MLR7: Compare and Connect**
Invite students to share the strategies they used to solve Problem 3. Select and sequence their responses in the order shown in the *Differentiation* table.
**Use the Think-Pair-Share routine.** Ask:

- "How are these strategies alike?"
- "How are these strategies different?"
- "Which strategy do you prefer and why?"
- **[EL] Multilingual/English Learners:** Encourage students to discuss their strategies in their primary language before discussing in English. This will provide multilingual learners with additional time to make sense of the similarities and differences between the strategies.

**Key Takeaway:** Say, "When adding 2 numbers of tens, you can use what you know about counting and adding numbers to find the sum."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

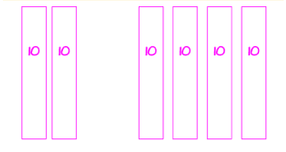
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count all by 10. |   | **Strengthen:** Ask, "How could you find the sum without counting each ten?" |
| Count on by 10 from either addend. | 2 tens is 20. 4 more tens would be 30, 40, 50, 60. | **Strengthen:** Ask, "How could knowing 2 + 4 = 6 help you find the sum of 2 tens and 4 tens?" |
| Add the 2 amounts of tens. | 2 tens plus 4 tens is 6 tens. 6 tens is 60. | **Stretch:** Ask, "What would you do differently if you were subtracting tens instead of adding tens?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Subtracting Tens

**Purpose:** Students subtract tens represented in various ways to continue thinking about the base-ten structure of multiples of 10 and explore strategies for finding the difference between 2 amounts of tens.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Read aloud** the directions and Problems 5–8.

**Provide** access to connecting cubes.

**[A] Accessibility: Memory and attention** Vary the task demands by inviting students to choose 3 of the 4 problems to solve and only solve the fourth problem when they have additional processing time.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 7**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about the representation?"
- Ask, "What are you trying to find?"

## Connect

Connect
Storyboard Art
FPO

X–X **[L]** This Connect is structured using the *MLR7: Compare and Connect* routine.

**Display** Problem 7.

**Invite students to share** the strategies they used to solve Problem 7. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine**. Ask:

- "How are these strategies alike?"
- "How are these strategies different?"
- **[EL] Multilingual/English Learners:** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing.

**Key Takeaway:** Say, "When subtracting 2 numbers of tens, you can use what you know about counting back and subtracting numbers to find the difference."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

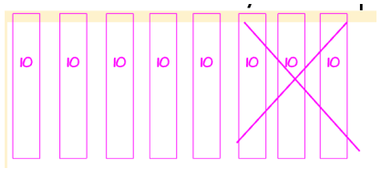
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Subtract units of 10 and write an equation that represents the difference between the numbers of tens. |  <br>8 – 3 = 5 | **Support:** Ask, "What do the numbers in your equation represent?" |
| Count back by 10 and write an equation that represents the difference between the numbers. | 80 – 30<br>80, 70, 60, 50<br>80 – 30 = 50 | **Strengthen:** Ask, "How do you know that 80 – 30 is the same as 8 tens take away 3 tens?" |
| Subtract units of 10 and write an equation that represents the difference between the numbers. | 8 tens take away 3 tens is 5 tens.<br>5 tens is 50.<br>80 – 30 = 50 | **Stretch:** Ask, "Can you think of any other equations someone might write to represent the same difference?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Different strategies can be used to add and subtract multiples of 10, and the sums and differences can be represented with equations.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

$2 + 3 = 5$

$20 + 30 = 50$

X–X **Say,** "Milton said knowing the sum of 2 + 3 helped him find the sum of 20 + 30."

**Use the Think-Pair-Share routine.** Ask, "Why do you think that helped Milton?"

**Say** (if not yet mentioned during discussion), "Milton thought about each number as a number of tens. 20 is 2 tens and 30 is 3 tens. He knows 2 + 3 is 5, so 2 tens + 3 tens is 5 tens and 20 + 30 = 50."

**Say,** "You will continue to use what you know about addition and subtraction within 10 as you find sums and differences of larger numbers."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add and subtract multiples of 10 within 100.
2. **Goal:** Represent sums and differences of multiples of 10 with equations.
3. **Language Goal:** Compare strategies for adding and subtracting multiples of 10 within 100. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 1 | NY-1.NBT.2c, NY-1.NBT.4 |
| | 3 | 1 | NY-1.NBT.6, NY-1.NBT.2c |
| **Spiral Review** | | | |
| | 4 | 1 | NY-1.MD.4 |
| Fluency | 5 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 3 – Add or Subtract Tens**
**Pairs** | **15 min** | NY-1.NBT.4, NY-1.NBT.6

Students choose 2 number cards (two-digit multiples of 10) and add or subtract to practice finding sums and differences.

**Materials**

- number cards (multiples of 10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

## Cover Up


**Stage 7 – Add or Subtract 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

**Materials**

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## What's Behind My Back?

Placeholder for Center Icon

**Stage 4 – Making 20**
**Pairs** | **15 min** | NY-1.OA.4

Students hide 2 towers of 10 cubes, break off some cubes, and show their partner the remaining cubes. Students determine how many are missing and represent their thinking with an addition equation.

### Materials

- connecting cubes (20 per pair), double 10-frames **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 4.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 6

**Lesson Goal:** Represent sums and differences of multiples of 10 with equations.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Write an equation that represents the sum or difference of the amounts of tens.

**Respond:**

- **Mini-Lesson** | 15 min
  *Writing Equations to Represent Sums and Differences of Multiples of Ten*
- **Lesson 6 Refresh Video**

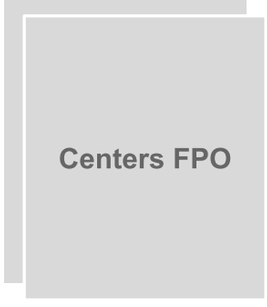

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Write an equation to represent the sum of the numbers.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 3
  *Cover Up*, Stage 7
  *What's Behind My Back?*, Stage 4
- **Lesson 6 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

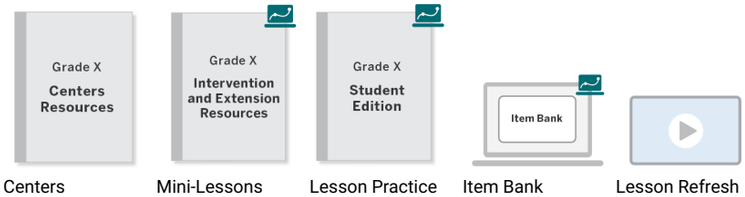
**If Students:** Write an equation to represent the sum or difference of the numbers.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

In future lessons, students will add two-digit numbers to other two-digit numbers by adding tens to tens and ones to ones. How did the work of today's lesson help prepare students for that work?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 7**

# Meeting Prashant

## Organizing and Counting a Collection in Tens and Remaining Ones

Let's find how many Curioso cards Prashant's friends have in their collections.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Organize a collection of up to 99 objects into groups of 10 and remaining ones.
2. **Goal:** Count collections of up to 99 objects that are organized into groups of 10 and remaining ones.
3. **Language Goal:** Explain strategies for organizing and counting collections of up to 99 objects with totals that are not multiples of 10. **(Speaking and Listening)**

Students organize and count a collection of objects to notice that the number of objects can be grouped into tens and remaining ones. They practice counting collections that have been organized into groups of 10 and remaining ones to recognize that they can count by 10 and then count on by 1 to determine the total amount in each collection. **(MP8)**

### Prior Learning

In Sub-Unit 1, students represented multiples of 10 with objects, drawings, and words and found sums and differences of multiples of 10. In Lesson 2, students counted collections that were multiples of 10 to practice organizing and counting the objects by 10 to find the total.

### Future Learning

In Lesson 8, students will read two-digit numbers and represent them with cubes and drawings. They will explore and discuss the meaning of the digits in two-digit numbers and notice that changing the order of the digits changes the value of the number.

## Rigor and Balance

- Students develop their **conceptual understanding** of strategies for counting quantities within 100.

## Vocabulary

**Review Vocabulary**

- *a one/ones*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.1**

**Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.**

*Also Addressing*: NY-1.NBT.2c

**Mathematical Practices:** MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-K.CC.5<br>NY-1.NBT.2a | NY-1.NBT.2 |

**I can be all of me in math class.**
Prashant's friends share an interest. What interests do you share with your math peers?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.1, NY-1.NBT.2c

## Warm-Up Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 1, starting at 50 and ending at 83. As you record the count, students may notice patterns or structures in the count such as repeating digits or how the numbers are composed of tens and ones. **(MP7)**


Screens X–X

## Activity 1 Pairs | 10 min

Students organize and count collections of objects to notice that when the objects are organized in groups of 10, there are some remaining ones. Students show how many tens are in their collection to prepare for a **Gallery Tour** in Activity 2.

**Additional Prep** Assemble: collections of objects in amounts of two-digit numbers but not a multiple of 10 (one per pair)


Screens X–X

## Activity 2 Pairs | 20 min

Students participate in a **Gallery Tour** as they practice counting the organized collections from Activity 1. Students recognize that collections that are organized into tens and ones can be counted by 10 and then by 1.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how they can use what they know about counting by 10 and by 1 to determine the total number of objects that are organized and represented in groups of 10 and remaining ones.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Check It Off, Stage 3
- Cover Up, Stage 7
- What's Behind My Back?, Stage 4


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** double 10-frames (optional)
- **Classroom materials:** collections of objects

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Choral Count

**Purpose:** Students count by 1 starting at 50 and ending at 83 to prepare for counting a collection of objects that represents a two-digit amount that is not a multiple of 10.

Presentation Screen X


Choral Count

Count aloud with your classmates by 1.

50, 51, 52, 53, 54, 55, 56, 57, 58, 59,
60, 61, 62, 63, 64, 65, 66, 67, 68, 69,
70, 71, 72, 73, 74, 75, 76, 77, 78, 79,
80, 81, 82, 83 ☐

## Launch

**Use the Choral Count routine.**

X-X **Say,** "Let's count by 1, starting at 50 and ending at 83."

**Display** each number as students count.

**Ask:**

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

## Connect

X-X **Record** students' responses as they share. Consider highlighting different patterns using different colors.

**Say,** after adding a box at the end of the displayed count, "Make a prediction about the number that will go in the box."

**Ask,** "How do you know?"

**Say,** "You will count collections that represent Curioso cards today."

**Students might say . . .**

I notice that every number is made up of 2 numbers.

Every row starts with a number that has a zero.

All the numbers in each row start with the same number.

The numbers going across each row are greater by 1 and the numbers going down each column are greater by 10.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 10 min

# Activity 1 Prashant's Cards

**Purpose:** Students organize and count a collection of objects to notice that sometimes there are remaining ones that do not make a ten.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say**, "When Steph met Prashant, she could not believe how many Curioso cards he had in his collection. She noticed Prashant had friends in his booth who were showing their Curioso cards to each other. They seemed to have large collections, too!"

**Display** 2–3 collections of objects.

**Say**, "The objects in these collections represent the different amounts of Curioso cards that Prashant's friends have in their collections."

**Read aloud** Problems 1 and 2.

**Provide** access to double 10-frames.

**Note:** Students will share how they organized their collections in a **Gallery Tour** in Activity 2.

### Materials

**Manipulative Kit:**

- Provide students with access to double 10-frames (optional).

**Classroom materials:**

- Distribute a collection of small objects, given in amounts of two-digit numbers but not a multiple of 10, to each pair.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "How have you seen a collection of objects organized in the past?"
- Ask, "How could you organize the objects to help count the collection?"

[A] **Accessibility: Conceptual processing** Display students' responses to the above questions and encourage them to use ideas from the generated list to help count and organize the collection.

## Connect

Connect Storyboard Art FPO

X–X **Invite pairs to share** how they organized their collection. Select 2–3 pairs who organized their collection as shown in Row 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:

- "What do you notice about how these collections are organized?"
- (if not yet mentioned during discussion) "What do you notice about the groups of ten? What do you notice about the group of ones?"
- [EL] **Multilingual/English Learners:** Provide students with wait time to formulate and rehearse a response with a partner before sharing with the class. If possible, encourage students to rehearse in their primary language before discussing in English.

**Say**, "If you have not already, work with your partner to organize your collection into as many groups of ten as you can."

**Key Takeaway: Say**, "Sometimes when you organize objects into groups of 10, there are remaining ones that do not make a full group of 10."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

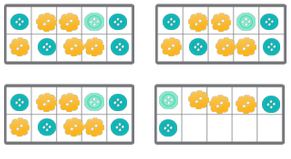
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Organize the objects into groups of amounts other than 10. |  | **Strengthen:** Ask, "How did organizing the objects this way help you count the collection?" |
| Organize the objects into groups of 10, with more than 10 remaining ones. |  | **Strengthen:** Ask, "You made groups of 10. How could you figure out if you can make any more groups of 10?" |
| Organize the objects into all possible groups of 10 and remaining ones. |  | **Stretch:** Ask, "How could you prove to someone that you made as many groups of 10 as possible?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 20 min

# Activity 2 Counting More Cards

**Purpose:** Students participate in a **Gallery Tour** of their classmates' organized collections from Activity 1 to notice that they can count the groups of objects by 10 and then count the remaining ones by 1.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Say,** "You counted 1 collection of objects in Activity 1 and noticed that after you put the objects into groups of 10, there were some remaining ones. Now you will figure out how many objects are in other collections."

**Read aloud** the directions and Problem 3.

**Use the Gallery Tour routine.** Say, "Each partner will count the collection independently first. Then you will talk together about how you counted."

**Note:** Students should visit 2–3 representations as time allows.

[EL] **Multilingual/English Learners:** If possible, pair students with different levels of English language proficiency together as they complete the **Gallery Tour** routine. This will provide a structured opportunity for Multilingual Learners to interact with and receive feedback from their peers with varied language backgrounds.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students have complete the activity, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "How is this collection organized?"
- Ask, "How could the way the collection is organized help you find the total?"

[A] **Accessibility: Conceptual processing** Provide questions students can ask themselves, such as, "How many groups of 10 do I see? How many objects are in groups of 10?"

## Connect

Connect Storyboard Art FPO

X–X **Display** 4 towers of 10 cubes and 3 single cubes.

**Use the Think-Pair-Share routine.** Ask, "How could you count this collection?" Select pairs to share using Rows 2 and 3 in the *Differentiation* table.

**Say,** "The collection is organized into 4 groups of 10 and 3 remaining ones. You could count by 10 to count the groups of 10 and then count on by 1 to count the remaining ones. You may know that 4 groups of 10 is 40 and count on by 1 to count the remaining ones."

**Key Takeaway:** Say, "When a collection is organized into groups of 10 and remaining ones, you can find the value of the tens and then count on by 1 to find the total."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

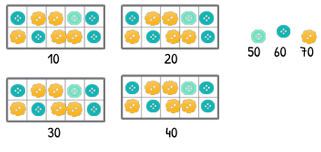
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Count the tens and ones by 10. |   | **Support:** Ask, "You counted by 10. Where do you see groups of 10 in this collection? Where do you see ones in this collection?" |
| Count tens by 10 and count on by 1 for each of the remaining ones. | 10, 20, 30, 40, 41, 42, 43 | **Stretch:** Ask, "When would you count a collection of objects by 10 only and when would you count by 10 and 1?" |
| Use place value reasoning to find the value of the tens and count on by 1 for each of the remaining ones. | 4 tens is 40.<br>40, 41, 42, 43 | **Stretch:** Ask, "What addition expression could represent the value of the tens and the value of the ones?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

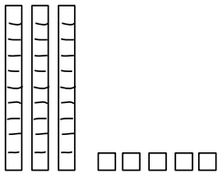
**Lesson Takeaway:** When counting large quantities, it is helpful to organize and count by 10 and then count on by 1 for the remaining ones.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)



X–X **Say,** "Prashant organized his collection of Curioso cards and then represented the total with this drawing of tens and ones."

**Use the Think-Pair-Share routine.** Ask, "How many Curioso cards are in Prashant's collection?"

**Say,** "When a collection has groups of tens and remaining ones, you can use what you know about counting by 10 and 1 to find the total."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Organize a collection of objects into groups of 10 and remaining ones.
2. **Goal:** Count collections of objects that are organized into groups of 10 and remaining ones.
3. **Language Goal:** Explain strategies for organizing and counting collections of up to 100 objects with totals that are not multiples of 10. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–5 | 1 | NY-1.NBT.1 |
| **Spiral Review** | | | |
| | 6, 7 | 2 | NY-1.MD.4 |
| Fluency | 8 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Short on time?** Consider omitting the Center Choice Time.

**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 3 – Add or Subtract Tens**
**Pairs** | **15 min** | NY-1.NBT.4, NY-1.NBT.6

Students choose 2 number cards (two-digit multiples of 10) and add or subtract to practice finding sums and differences.

**Materials**

- number cards (multiples of 10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**


## Cover Up


**Stage 7 – Add or Subtract 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

**Materials**

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## What's Behind My Back?

Placeholder for Center Icon

**Stage 4 – Making 20**
**Pairs** | **15 min** | NY-1.OA.4

Students hide 2 towers of 10 cubes, break off some cubes, and show their partner the remaining cubes. Students determine how many are missing and represent their thinking with an addition equation.

### Materials

- connecting cubes (20 per pair), double 10-frames **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 3, Sub-Unit 4.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 7

**Lesson Goal:** Count collections of objects that are organized into groups of 10 and remaining ones.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Count the tens and ones by 10.

**Respond:**

- **Mini-Lesson** | 15 min
  *Representing a Collection With Tens and Ones*
- **Lesson 7 Refresh Video**

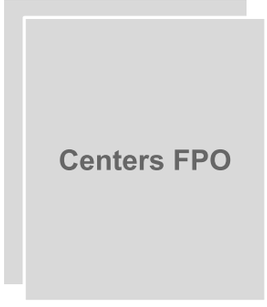

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Find the value of the tens by counting by 10 or using place-value reasoning and count on by 1 for each of the remaining ones.

**Respond:**

- **Centers** | 15 min
  *Compare*, Stage 2
  *Cover Up*, Stage 6
  *Shake and Spill*, Stage 5
- **Lesson 7 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

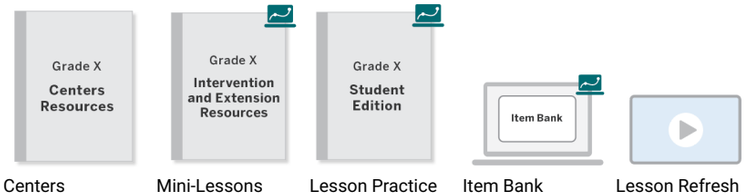
**If Students:** Use place-value reasoning to determine the total value.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

How effective were your questions in supporting students' thinking about amounts of ten today? What did students say or do that showed they were effective?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 8**

# Curioso Collections

## Representing Two-Digit Numbers With Tens and Ones

Let's represent numbers with tens and ones.

**Student Edition pages**, **Manipulatives**, and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Represent a two-digit number as amounts of tens and ones using objects and drawings.
2. **Language Goal:** Describe a two-digit number as amounts of tens and ones. **(Speaking and Listening)**
3. **Language Goal:** Justify if a given base-ten drawing represents a two-digit number by reasoning about the value of the digits. **(Speaking and Listening)**

Students interpret two-digit numbers that are not multiples of 10 written in standard form for the first time and are introduced to the term **digit**. They represent two-digit numbers using connecting cubes and drawings to recognize that the digits in two-digit numbers represent the amount of tens and ones. Students then determine what number is represented by a given base-ten drawing to notice that writing the same digits in a different order changes the value of a two-digit number. They recognize that when objects or drawings are used to represent a two-digit number, the order in which the tens and ones are represented does not affect the value of the number. **(MP3, MP7)**

### Prior Learning

In Unit 3, students explored teen numbers and described them as a ten and a number of ones. In Lesson 7, they counted collections of objects to notice they could group and count by 10 and then count on by 1.

### Future Learning

In Lessons 9 and 10, students will interpret, create, and compare different base-ten representations of two-digit numbers and explore how addition expressions can be used to show the value of the digits.

## Rigor and Balance

- Students build **conceptual understanding** of the meanings of the tens and ones digits in a two-digit number.

## Vocabulary

**New Vocabulary**

- **digit**

**Review Vocabulary**

- *a one/ones*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.2**

**Understand that the two digits of a two-digit number represent amounts of tens and ones.**

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP3, MP7

**I can be all of me in math class.**
What do you already know about numbers with tens and ones?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.2, NY-1.NBT.1,

## Warm-Up Whole Class | 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about 2 sets of numbers — a set of one-digit numbers and a set of two-digit numbers. The term **digit** is introduced.


Screens X–X

## Activity 1 Pairs | 15 min

Students develop their conceptual understanding of two-digit numbers by representing two-digit numbers as amounts of tens and ones with cubes and drawings.
**Additional Prep** Assemble: 9 towers of 10 cubes and 9 single cubes per pair; Prepare: *Words to Describe Numbers* chart


Screens X–X

## Activity 2 Pairs | 15 min

Students analyze a base-ten drawing in which the ones are represented on the left and the tens on the right. They consider 2 interpretations of the amount and justify which they agree with to recognize that the order of tens and ones does not matter when representing a two-digit number with a drawing. **(MP3)**


Screens X–X

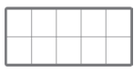
## Synthesis Whole Class | 5 min

Students review and reflect on how two-digit numbers represent amounts of tens and ones, with the left digit showing the amount of tens and the right digit showing the amount of remaining ones.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Counting Collections, Stage 3*, in which they count collections, represent how many, and explain how they counted.
**Additional Prep** Assemble: collections of objects (up to 99, one per pair)




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *The Collectors*
- **Manipulative Kit:** connecting cubes
- **Classroom materials:** chart paper, markers, *Words to Describe Numbers* chart (teacher made)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students compare 2 sets of numbers to notice differences between one-digit and two-digit numbers and develop formal mathematical language for describing these numbers.

Presentation Screen X


## What do you notice? What do you wonder?

**Set A**

0 1 2 3 4 5 6 7 8 9

**Set B**

10 23 45 67 89

### Launch

X–X **Display** the image.

**Use the Notice and Wonder routine.**

**Use the Think-Pair-Share routine.** Ask, "What do you notice? What do you wonder?"

### Connect

X–X **Record** students' responses as they share.

**Say**, "One way to represent numbers is to use **digits**. The numbers in Set A are *one-digit numbers*. The numbers in Set B are *two-digit numbers*."

**Display** the number 37, and ask, "With which set does the number 37 belong? Why?"

**Students might say . . .**

I notice the numbers in Set A are all written as 1 number and the numbers in Set B are written as 2 numbers.

I notice the sets have the same numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

I wonder if there are more numbers that can go in Set B.

I wonder what these numbers represent.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Special Edition Cards

**Purpose:** Students read and interpret two-digit numbers and represent them using cubes and drawings to develop their conceptual understanding of the meaning of the digits in a two-digit number.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Read aloud** page 8 of the Unit Story, *The Collectors*.

**Say:**

- "While Steph and her mom visited Prashant's booth, they saw that he and his collector friends were looking at Curioso cards that Steph had never seen before. They were shiny, gold, special edition cards! Prashant explained that the reason that special edition cards are special is because they only come in certain packs."
- "You will work in pairs to represent each collector's number of special edition cards."

**Read aloud** the directions and display Problems 1–4.

**[A] Accessibility: Executive functioning** Vary the task demands by giving students a choice to solve 2 problems. Have students complete the remaining 2 problems when they have more processing time.

### Materials

- Display and read aloud page 8 of the Unit Story, *The Collectors* during the Launch.

**Manipulative Kit:**

- Distribute 9 towers of 10 connecting cubes and 9 single cubes to each pair.

**Classroom materials:**

- Use chart paper and markers to create the *Words to Describe Numbers* chart before the activity.

**Short on time?** For Problems 1–4, consider having students represent 2 numbers with cubes and 2 numbers with drawings.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you need to do first?"
- Ask, "How can you figure out how many towers of 10 you need to build this number?"

**[L] MLR2: Collect and Display**

- Collect student language used to describe the numbers, such as *ones, tens, digit,* and *two-digit number*, on the prepared *Words to Describe Numbers* chart.
- Display and update the chart during the Connect. Invite students to use language from the display as needed throughout Unit 4 activities.
- **[EL] Multilingual/English Learners:** Add and connect visual examples to the *Words to Describe Numbers* chart, and make explicit connections to referenced materials.

**Note:** Display the *Words to Describe Numbers* chart for the remainder of the unit.

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their drawings for Problem 3 and how they determined the amount of tens and ones to represent the number. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:

- "How did you know how many tens to represent for each number?"
- "How did you know how many ones to represent for each number?"

**Say,** "In Unit 3, you represented and described teen numbers as a ten and some ones. Other two-digit numbers are also made of tens and ones."

**Key Takeaway: Say,** "Two-digit numbers can be represented as an amount of tens and an amount of ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

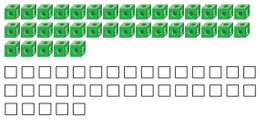
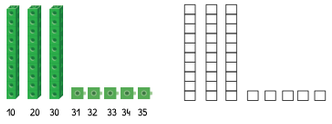
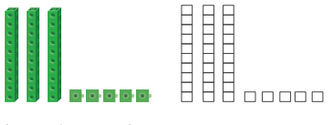
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Build the number with all single cubes and create a drawing that matches. |  1, 2, 3… 35 | **Support:** Ask, "You represented 35 as 35 ones. What is another way you could represent it to show how many tens there are in the number?" |
| Build the number using cubes to and count by 10 and by 1 and create a drawing that matches. |   | **Strengthen:** Ask, "What do you notice about the digits in the number 35 and the number of tens and ones?" |
| Build the number using place value reasoning and create a drawing that matches. |  35 has 3 tens and 5 ones. | **Stretch:** Ask, "You found the number of tens and ones without counting. Could you find the number of tens and ones in any two-digit number without counting? Why or why not?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Who Do You Agree With?

**Purpose:** Students interpret a base-ten drawing of a two-digit number with ones on the left of the tens to recognize that tens and ones can be represented in any order with objects and drawings without changing the value of a number.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "When Steph asked Prashant how many special edition Curioso cards he had in his collection, he showed her a drawing that represented how many he had."

**Read aloud** the directions and Problems 5 and 6.

[A] **Accessibility: Executive functioning** Chunk this task into smaller, more manageable parts by having students complete Problem 5 in two steps. Have students determine the value of the representation first, and then consider who they agree with and why.

**Provide** access to connecting cube towers of 10 and single cubes.

**Materials**

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 5**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What is the problem asking you to think about?"
- Ask, "Describe the drawing. What is represented?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their responses to Problem 5. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Display** the image from Problem 5. Label it with the number 86. Display a student's drawing for Problem 6. Label it with the number 68.

**Use the Think-Pair-Share routine.** Ask:

- "What do you notice about the digits in each number?"
- "Are these the same number? Why or why not?"
- [EL] **Multilingual/English Learners:** Invite students to begin partner interactions by restating their partner's description, in their own words, before adding their own ideas to the discussion.

**Say** (if not yet mentioned during discussion), "In the number 86, the digit on the left, the 8, shows the tens, and the digit on the right, the 6, shows the ones. In the drawing in Problem 5, even though the ones are drawn before the tens, the drawing still shows 8 tens and 6 ones."

**Key Takeaway:** Say, "When writing two-digit numbers, the order of the digits matters. When representing two-digit numbers with objects or drawings, the tens and ones can be represented in any order and the value of the number will not change."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Agree with the visitor, and justify their thinking using the order the quantities are shown. | I agree with the visitor. I see 6 and then 8, so the value is 68. | **Support:** Ask, "How many tens do you see in the drawing? How many ones do you see?" |
| Agree with Steph, and justify their thinking by counting to find the value of the tens and ones shown in the drawing. | I agree with Steph because I counted the cubes 10, 20, 30, 40, 50, 60, 70, 80, 81, 82, 83, 84, 85, 86. | **Strengthen:** Ask, "You counted to find the number represented. What is another way you could figure out how many cards are shown?" |
| Agree with Steph, and justify their thinking using place value reasoning. | I agree with Steph because the drawing shows 8 tens and 6 ones, which is 86. | **Stretch:** Say, "Talk with your partner about what addition expression could represent the number of gold cards Prashant has in his collection." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

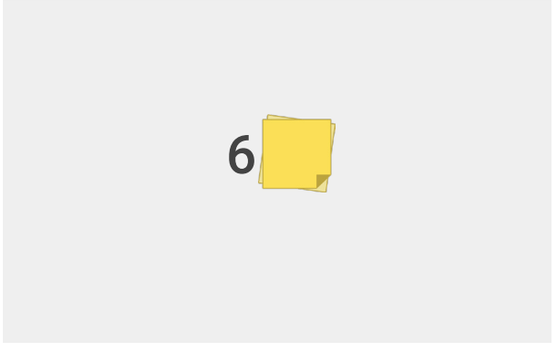
# Synthesis

**Lesson Takeaway:** The **digits** in a *two-digit* number indicate how many tens and ones there are in the number. The left digit represents the tens and the right digit represents the ones. When representing a two-digit number with objects or drawings changing the order of the tens and ones does not change the value of the number.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)




X–X **Say,** "This is a two-digit number. The sticky note is covering one of the digits in the number."

**Ask:**

- "Could this number be 26? Why or why not?"
- "What number could this be? How do you know?"

**Say,** "In two-digit numbers, the left digit represents the amount of tens, and the right digit represents the amount of ones."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Represent a two-digit number as amounts of tens and ones using objects and drawings.
2. **Language Goal:** Describe a two-digit number as amounts of tens and ones. **(Speaking and Listening)**
3. **Language Goal:** Justify if a given base-ten drawing represents a two-digit number by reasoning about the value of the digits. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.NBT.2, NY-1.NBT.1 |
| **Spiral Review** | | | |
| | 4, 5 | 2 | NY-1.MD.4 |
| Fluency | 6 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Let's Play
## Counting Collections, Stage 3

**Purpose:** Students count collections of up to 99 objects and represent the total amount and how they counted.

**Presentation Screens X–X**


### Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Recording Sheet.

**Demonstrate** how to play *Counting Collections, Stage 3*. While demonstrating:

- **Say,** "You will play *Counting Collections* today."
- **Say,** "First, I will talk with a partner about how to organize and count the objects in the collection."
- **Use the Think-Pair-Share routine.** Ask, "How would you organize and count this collection to find how many?"
- **Say,** "I will use the 10-frame to organize and count the objects, create a representation to show how I counted, and then record the total."
- **Say,** "After counting a collection and recording the amount, you will count the same collection again in a different way. You will represent how you counted on the back of the Recording Sheet."
- **Say,** "Now, you will play the Center with a partner. After counting a collection twice and recording the amount, choose another collection to count."

### Materials

**Manipulative Kit:**

- Distribute 10-frames to each pair.

**Classroom materials:**

- Distribute cups and collections of up to 99 objects to each pair.

**Centers Resources:**

- Display the Directions and Recording Sheet during the Launch.
- Distribute a Recording Sheet to each student.

### Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students are organizing and counting objects. They may count by ones, use 10-frames to organize and count by 10 and then 1, or make groups of 10 and count by 10 and then by 1. Observe how students are recording their count. They may draw pictures or write numbers to represent their collection.

### Connect

Connect Storyboard Art FPO

X–X **Invite students to share** how they organized and counted their collections.

**Ask** (for each collection), "Why did you choose to count your collection in this way?"

**Display** a collection that is organized in groups of 10 and remaining ones (or display a Recording Sheet that shows this).

**Ask:**

- "How is this collection organized?"
- "How many objects are in this collection? How do you know?" Select and sequence students' responses using Rows 2 and 3 in the *Differentiation* table.

**Key Takeaway:** Say, "You can organize and count collections of objects into groups of ten and ones and choose a strategy for finding the total amount."

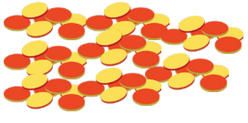
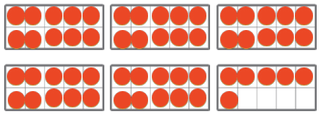
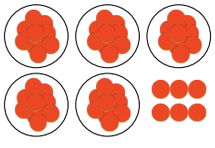
This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**

Center Direction Sheet

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count the objects by 1. |  1, 2, 3, 4, 5, …, 56 | **Strengthen:** Ask, "You counted by 1. What is another way you could count this collection?" |
| Group the objects (with or without 10-frames) and count by 10 and then count on by 1. |  10, 20, 30, 40, 50, 51, 52, 53, 54, 55, 56 | **Strengthen:** Ask, "How many tens are in this collection? How many ones? How could you use the amounts of tens and ones to find the total without counting?" |
| Group the objects by tens and remaining ones and use place value reasoning to find the total. |  5 tens and 6 ones is 56 | **Stretch:** Ask, "How did organizing your objects in this way help you find the total? Would your strategy work to find the total of a larger collection? Why or why not?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 8

**Lesson Goal:** Represent a two-digit number as amounts of tens and ones using objects and drawings.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Represent a two-digit number with all ones.

**Respond:**

- **Mini-Lesson** | 15 min
  *Representing Two-Digit Numbers With Tens and Ones*
- **Lesson 8 Refresh Video**

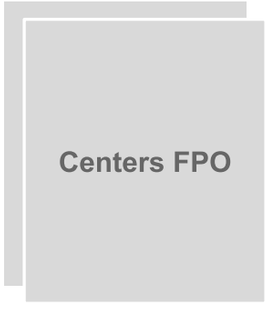

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Represent a two-digit number by counting out tens by 10 and ones by 1.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 3
  *Cover Up*, Stage 7
  *What's Behind My Back?*, Stage 3
- **Lesson 8 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Represent a two-digit number using place value reasoning.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

What opportunities are you giving students to reflect on their understanding of the base-ten structure of two-digit numbers?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 9**

# Do They Show the Same Number?

## Interpreting Representations of Two-Digit Numbers

Let's explore different ways to represent two-digit numbers.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Interpret base-ten representations of two-digit numbers, including drawings, numbers, words, and addition expressions.
2. **Language Goal:** Justify if 2 different base-ten representations show the same number. **(Speaking and Listening)**

Students interpret a variety of base-ten representations of two-digit numbers, including drawings, written numerals, words, and expressions in which the addends represent the values of the tens and ones digits, to determine if 2 representations show the same number. They then deepen their understanding of two-digit numbers through a matching activity, in which they reason about the amounts of tens and ones to make connections between different representations of the same number. **(MP2, MP7)**

### Prior Learning

In Unit 3, students represented teen numbers with *10 + n* expressions. In Lesson 8, students represented two-digit numbers with cubes and drawings and discussed how representations showed the amount of tens and ones in each number.

### Future Learning

In Lesson 10, students will continue to develop their conceptual understanding of the base-ten structure of two-digit numbers as they represent two-digit numbers in multiple ways.

## Rigor and Balance

- Students develop their **conceptual understanding** of place value.

## Vocabulary

**Review Vocabulary**

- *digit*
- *equal*

## Standards

**Addressing**

**NY-1.NBT.2**

**Understand that the two digits of a two-digit number represent amounts of tens and ones.**

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP2, MP3, MP6, MP7

**I can be all of me in math class.**
How do you keep track of your thinking in math class?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.2, NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Which One Doesn't Belong?** routine to find similarities and differences in 4 base-ten representations of two-digit numbers. They should be encouraged to use precise language as they give their reasons for the one they chose. **(MP3, MP6)**


Screens X–X

## Activity 1 Small Groups | 15 min

Students interpret different base-ten representations of two-digit numbers, including drawings, words, and addition expressions, to determine if pairs of representations show the same number.

**Additional Prep** Display: 2 sets of Posters A–F from the Activity 1 PDF in order by letter in various places in the classroom


Screens X–X

## Activity 2 Independent | 15 min

Students match representations of the same two-digit number to make connections between different representations. They recognize that two-digit numbers could be represented with addition expressions that show the value of each digit.


Screens X–X

## Synthesis Whole Class | 5 min

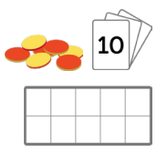
Students review and reflect on how different representations of two-digit numbers show the amounts of tens and ones.

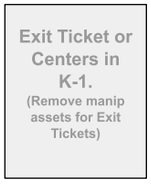

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Check It Off, Stage 3
- Counting Collections, Stage 3
- Cover Up, Stage 7




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF (for display)
- **Classroom materials:** *Words to Describe Numbers* chart (from Lesson 8)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Which One Doesn't Belong?

**Purpose:** Students analyze and compare 4 base-ten representations to build precision with place value related mathematical terms including *tens*, *ones*, *digit*, and *two-digit number*.

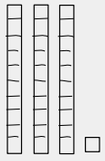
Presentation Screen X


## Which One Doesn't Belong?

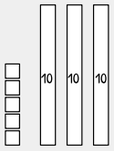
A.

35

B.



C.




D.

3 tens 5 ones

### Launch

**Display** the 4 images.

**Use the Which One Doesn't Belong? routine.**

**Say**, "Choose one that doesn't belong. Be ready to share your reasoning."

### Connect

**Record** students' responses as they share.

**Ask**, "Look at Images B and C. Why might a person choose to draw a ten by labeling a rectangle with '10' instead of drawing a stack of 10 ones?"

**Say**, "You will continue to think about different representations of two-digit numbers."

**Students might say . . .**

A: It is the only one written as a two-digit number.

B: It is the only one that doesn't show 35.

C: It is the only one that shows the ones on the left and the tens on the right.

D: It is the only one that tells how many tens and ones with words.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Small Groups | 15 min

# Activity 1 Representation Tour

**Purpose:** Students apply their understanding of place value to interpret different representations of two-digit numbers and determine if they show the same number.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Arrange** students in groups of 3.

**Say**, "Steph liked that Prashant kept his Curioso cards in binders because the binders helped him to count how many cards there were. Steph noticed that each page looked like a double 10-frame, with 2 rows of 5 cards on the top and 2 rows of 5 cards on the bottom. She considered storing her cards this way but then she wondered what other ways might be helpful for counting."

**Say**, "Just like Curioso cards, two-digit numbers can be represented in more than one way."

**Read aloud** the directions and Problems 1 and 2.

**Say**, "When you finish discussing, rotate to the next poster. For example, if you are visiting Poster C, you will visit Poster D next."

**Note:** As an alternative, you can determine when students rotate.

### Materials

**Lesson Resources:**

- Display two sets of Posters A–F from the Activity 1 PDF in order by letter in various places around the classroom with enough space for students to gather.

**Short on time?** Consider modifying the activity so that groups visit 4 posters rather than 6 posters.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about this representation?"
- Ask, "What do you notice about the number of tens in this representation? The number of ones?"

## Connect

Connect Storyboard Art FPO

X–X **[L]** This Connect is structured using the *MLR7: Compare and Connect* routine.

**Ask**, "How were you able to determine if 2 representations were showing the same number?"

**Display** the different representations of 52.

**Use the Think-Pair-Share routine.** Ask:

- "What is similar between these representations?"
- "What is different between these representations?"
- **[A] Accessibility: Visual-spatial processing** Annotate the representations to highlight the similarities and differences students notice between the representations.

**Key Takeaway:** Say, "There is more than one way to represent the number of tens and the number of ones in a two-digit number."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

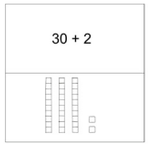
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . .<br>Poster B | Provide support . . . |
|---|---|---|
| **Almost there** Reason that different numbers are shown because the representations look different. |  <br>The top shows an expression and the bottom shows a drawing. | **Support:** Ask, "You noticed a difference in the representations. What do you notice is the same about the representations?" |
| Reason that the numbers are the same or different by figuring out the number shown in each representation. | The top shows 30 plus 2 which is 32, and the bottom shows 10, 20, 30, 31, 32. | **Strengthen:** Ask, "You figured out that both representations show the same number. What other connections can you make between the representations?" |
| Reason that the numbers are the same or different by comparing the amount of tens and ones shown in each representation. | The drawing shows 3 tens. The expression shows 3 tens represented by the number 30. Both representations show 2 ones. | **Stretch:** Ask, "When might you want to use each type of representation?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Independent | 15 min

# Activity 2 Matching Representations

**Purpose:** Students match representations that show the same two-digit number, including addition expressions that show the value of the digits, to deepen their understanding of the value of the digits in two-digit numbers.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Read aloud** Problem 3.

**Have students** work on Problem 3 independently for 5 minutes.

**Read aloud** Problem 4.

[A] **Accessibility: Memory and attention** Clarify vocabulary by encouraging students to review the *Words to Describe Numbers* chart before discussing the problems. Provide time for students to ask clarifying questions about the language displayed on the chart.

### Materials

**Classroom materials:**

- Display the *Words to Describe Numbers* chart (from Lesson 8) during the Launch.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what do you need to do to complete the problem?"
- Ask, "What do you notice about the tens in this representation? The ones?"

[EL] **Multilingual/English Learners:** Foster metalinguistic awareness by using a think-aloud routine to demonstrate how to complete Problem 4, and then have students choose a different pair of matching representations to explain to their partner.

## Connect

Connect
Storyboard Art
FPO

X–X **Record** 59 and the expression 50 + 9.

**Use the** Think-Pair-Share **routine.** Ask, "How do you know these representations show the same number?"

**Say** (if not yet mentioned during discussion), "You do not have to add 50 + 9 to know these representations show the same number. The 5 in 59 represents 5 tens and 5 tens is 50. The 9 in 59 represents 9 ones."

**Key Takeaway:** Say, "Two-digit numbers can be represented with addition expressions that show the value of each digit."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Determine matches using the digits. | 4 tens 7 ones and 7 tens 4 ones have the same numbers.<br>or<br>4 tens 7 ones is a match with 7 + 40 because there is a 4 and 7. | **Support:** Ask, "What does the 4 represent in 4 tens 7 ones? What does the 4 represent in 7 tens 4 ones?" |
| Determine matches by counting to find each number. | 4 tens and 7 ones is 10, 20, 30, 40, 41, 42, …, 47. 7 + 40 is equal to 47 because 40, 41, 42, …, 47. Both representations show 47. | **Strengthen:** Ask, "You found that the 2 representations show 47. Where do you see the number of tens in these representations? Where do you see the number of ones?" |
| Determine matches by reasoning about the value of tens and ones. | 4 tens is 40, and 7 ones is 7 so it matches 7 + 40. The 4 in 47 represents 4 tens and the 7 in 47 represents 7 ones. | **Stretch:** Ask, "How could you represent 47 in another way to help someone understand that these representations show the same number?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** A two-digit number can be represented in different ways, including with addition expressions that show the value of the tens digit and the ones digit.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

| | |
|---|---|
| 27 | |
| | |

X–X **Use the Think-Pair-Share routine.** Ask, "What are different ways to represent 27?"

**Say,** "When representing a two-digit number, you can show the number of tens and ones in different ways using drawings, numbers, words, and addition expressions."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Interpret base-ten representations of two-digit numbers, including drawings, numbers, words, and addition expressions.
2. **Language Goal:** Justify if 2 different base-ten representations show the same number. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–5 | 1 | NY-1.NBT.2, NY-1.NBT.1 |
| **Spiral Review** | | | |
| | 6, 7 | 2 | NY-1.MD.4 |
| Fluency | 8 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 3 – Add or Subtract Tens**
**Pairs** | **15 min** | NY-1.NBT.4, NY-1.NBT.6

Students choose 2 number cards (two-digit multiples of 10) and add or subtract to practice finding sums and differences.

**Materials**

- number cards (multiples of 10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

## Counting Collections


**Stage 3 – Up to 99**
**Pairs** | **15 min** | NY-1.NBT.1

Students count collections and represent how many and how they counted.

**Materials**

- 10-frames **(Manipulative Kit)**
- collections of objects (one per pair), cups **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## Cover Up

Placeholder for Center Icon

**Stage 7 – Add or Subtract 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

### Materials

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 9

**Lesson Goal:** Interpret base-ten representations of two-digit numbers, including drawings, numbers, words, and addition expressions.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Interpret base-ten representations using the order in which the tens and ones are represented.

**Respond:**

- **Mini-Lesson** | 15 min
  *Matching Representations of Two-Digit Numbers*
- **Lesson 9 Refresh Video**


## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Interpret a base-ten representation by counting or adding to identify the total value of the representation.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 3
  *Counting Collections*, Stage 3
  *Cover Up*, Stage 7
- **Lesson 9 Practice** | 15 min
- **Item Bank**


## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Interpret a base-ten representation by identifying the amounts of tens and ones represented.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

Considering students' responses, what was the best question you asked students today and why?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 11**

# Connecting With Collectors

## Writing Two-Digit Numbers to Match Different Base-Ten Representations

Let's write two-digit numbers to represent tens and ones.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Write two-digit numbers to match different base-ten representations.
2. **Language Goal:** Explain how a two-digit number matches a base-ten representation. **(Speaking and Listening)**

Students interpret different base-ten representations of two-digit numbers and record the written numerals that match each representation. This is the first time students write two-digit numbers with explicit attention to the value of each of the digits. Students consider the amounts of tens and ones in each representation to determine the digit to write in the tens place and the digit to write in the ones place. Students notice the need to write the digit 0 in the ones place when recording a number that represents a multiple of 10. **(MP6, MP7, MP8)**

### Prior Learning

In Lesson 10, students created representations to match two-digit numbers by attending to the digits in the tens place and the digits in the ones place of each value. They interpreted different representations, including drawings, numbers, words, and expressions, to identify the two-digit number being represented.

### Future Learning

In Lesson 12, students will find sums of two-digit numbers with amounts of tens and ones and multiples of 10.

## Rigor and Balance

- Students build **conceptual understanding** of how to represent two-digit numbers with written numerals.

## Vocabulary

**Review Vocabulary**

- *digit*
- *a one/ones*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.1**

Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

*Also Addressing*: NY-1.NBT.2

**Mathematical Practices:** MP6, MP7, MP8

**I can be all of me in math class.**
Writing numbers is part of a mathematician's work. What else do mathematicians do?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.1, NY-1.NBT.2

## Warm-Up Whole Class | 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about base-ten representations and corresponding written numerals with the same digit in different places.


Screens X–X

## Activity 1 Pairs | 15 min

Students interpret base-ten representations and write a two-digit number to match each one. They recognize that they write the digit that represents the amount of tens in the tens place, and the digit that represents the amount of ones in the ones place.


Screens X–X

## Activity 2 Pairs | 15 min

Students write two-digit numbers that match different base-ten representations, including words and expressions. They discuss the need to write a 0 in the ones place when writing a multiple of 10.


Screens X–X

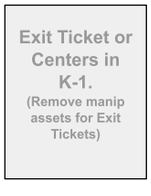
## Synthesis Whole Class | 5 min

Students review and reflect on how to write two-digit numbers, by recording the amount of tens as a digit in the tens place, and recording the amount of ones as a digit in the ones place.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Last Number Wins, Stage 1*, in which they take turns writing the next 1, 2, or 3 numbers in a sequence to practice counting on by 1 from numbers less than 120 and writing two-digit numbers.
**Additional Prep** Prepare: Place Gameboards in sheet protectors




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *The Collectors*

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

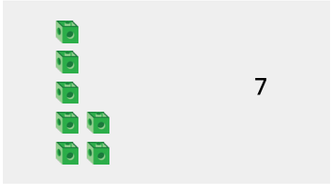
Whole Class | 10 min

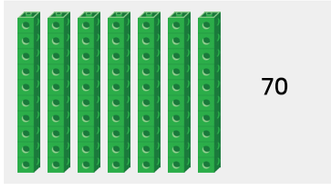
# Warm-Up Notice and Wonder

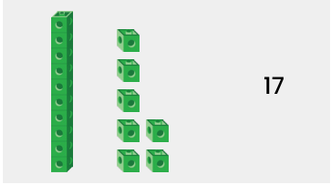
**Purpose:** Students examine a set of base-ten representations with corresponding written numerals to consider the similarities and differences between numbers with the same digit in different places.

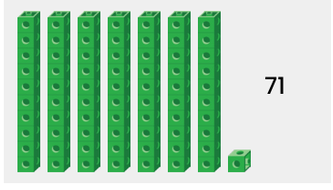
Presentation Screen X


## What do you notice? What do you wonder?




### Launch

X–X **Display** the image.

**Use the Notice and Wonder routine.**

**Use the Think-Pair-Share routine.** Ask, "What do you notice? What do you wonder?"

### Connect

X–X **Record** students' responses as they share.

**Ask:**

- "How are 7 and 17 the same? How are they different?"
- "How are 70 and 71 the same? How are they different?"
- "How are 7 and 70 the same? How are they different?"

**Say**, "You will continue to think about what each of the digits in a two-digit number represents."

**Students might say . . .**

I notice 7 is the only one that does not have any tens.

I notice 17 has 1 ten 7 ones, and 71 has 7 tens 1 one.

I wonder why other numbers with a 7 are not included.

I wonder why all these images show the tens before the ones.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Writing Two-Digit Numbers

**Purpose:** Students interpret base-ten representations to determine and record the number shown to practice writing two-digit numbers.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Display** the illustration on page 8 of the Unit Story, *The Collectors*.

**Say,** "All of the Curioso collectors that Steph meets are so proud of their collections, no matter how many cards they have. Each collector is eager to share the amount of cards in their collection with Steph and her mom."

**Display** the representations from the Student Edition.

**Say**, "Each of the representations shows how many cards a Curioso collector has collected."

**Read aloud** the directions.

**Have students complete** Problems 1–6 independently.

**Read aloud** Problem 7.

[A] **Accessibility: Conceptual processing** Provide questions students can ask themselves as they complete Problems 1–6, such as, "How many tens are shown? How many ones are shown?"

### Materials

- Display the illustration on Page 8 of the Unit Story, *The Collectors* during the Launch.

**Short on time?** Consider omitting Problem 7.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students complete **Problem 7**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about the representation?"
- Ask, "How can you describe the number of tens? The number of ones?"

[EL] **Multilingual/English Learners:** As students complete Problem 7, use gestures to highlight and emphasize the connections between the written numeral and the representation. For example, use fingers to count the amount of tens in the representation and then point to the digit in the tens place to show how the digit relates to the drawing or connecting cubes.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** Problem 3.

**Invite students to share** their responses and their thinking. Record 39 and highlight connections between the written digits and the representations as students share.

**Key Takeaway:** Say, "When writing a two-digit number, you write the number of tens as a digit in the tens place and the number of remaining ones as a digit in the ones place."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

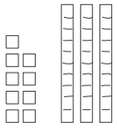
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . Problem 3 | Provide support . . . |
|---|---|---|
| **Almost there** Explain that they counted to find the total. |  93 because I counted and there are 9 and then 3. | **Support:** Ask, "How many tens do you see? How many ones do you see?" |
| Explain that they counted by 10 and 1 to find the total. | 39 because I counted 10, 20, 30, 31, 32,..., 39. | **Strengthen:** Ask, "How could you use what you know about tens and ones to find the number without counting?" |
| Explain how they used the amounts of tens and ones to write the number. | 39 because there are 3 tens and 9 ones. | **Stretch:** Ask, "Imagine another one was added to this representation. How would the drawing change? How would the two-digit number you recorded change?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Curioso Cards Everywhere!

**Purpose:** Students write two-digit numbers to match different base-ten representations, including multiples of 10, to notice that a zero is needed in the ones place when writing multiples of 10 to show there are no remaining ones.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

**X–X Say:**

- "So many people at the flea market visited Prashant's stall and were excited to chat about their own Curioso collections. Steph and her mom enjoyed every minute they got to connect with other Curioso collectors."
- "The problems in this activity show the amount of cards in people's Curioso collections."

**Read aloud** the directions.

**[A] Accessibility: Visual-spatial processing** Encourage students to use connecting cubes or drawings to represent the problems more concretely.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (as needed).

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 10**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about this representation?"
- Ask, "What digits can you use to show the amount of tens? What digit can you use to show the amount of ones?"

## Connect

Connect Storyboard Art FPO

**X–X**

**[L] MLR7: Compare and Connect**
Invite students to share their responses for Problems 8 and 10. Record the numbers 63 and 50 as students share.
**Use the Think-Pair-Share routine.** Ask:

- "How are the two-digit numbers that match these representations alike?"
- "How are they different? Why?"
- **[EL] Multilingual/English Learners:** Provide students with wait time to formulate and rehearse a response with a partner before sharing with the class.

**Key Takeaway:** Say, "When a two-digit number has a number of tens with no remaining ones, you write a digit in the tens place to represent the number of tens, and you write a zero in the ones place to show there are zero remaining ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Write the amount of tens. | 5 | **Support:** Ask, "How many cubes are in 5 tens? How does the number you wrote show the same amount?" |
| **Almost there** Reverse the order of the tens and ones digits. | 05 | **Support:** Ask, "How did you decide what digit to write in the tens place and what digit to write in the ones place?" |
| Write the amount of tens in the tens place and 0 in the ones place. | 50 | **Strengthen:** Say, "Talk with your partner about why you need to write a 0 in the ones place, even though there are no ones." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

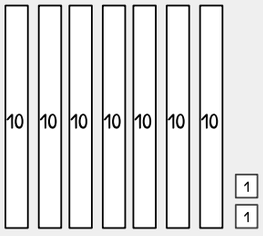
# Synthesis

**Lesson Takeaway:** When writing two-digit numbers, the amount of tens is written as the digit in the tens place, and the amount of remaining ones is written as the digit in the ones place. Multiples of 10 are written with a 0 in the ones place.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)




702

X–X **Say,** "One of the Curioso collectors has 72 cards in her collection, organized in packs of 10. When Steph asked this collector how many cards she has, the collector wrote 70 to represent her 7 packs of 10 cards, and she wrote 2 to represent the 2 remaining cards."

**Use the Think-Pair-Share routine.** Ask, "What advice would you give this collector about writing numbers that have tens and ones?" Cross out 702 and record 72 as students explain.

**Say,** "When writing numbers to represent amounts of tens and ones, only 2 digits are used. The digit on the left shows the number of tens, and the digit on the right shows the number of ones."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Write two-digit numbers to match different base-ten representations.
2. **Language Goal:** Explain how a two-digit number matches a base-ten representation. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–7 | 1 | NY-1.NBT.2, NY-1.NBT.1 |
| **Spiral Review** | | | |
| | 8, 9 | 2 | NY-1.MD.4 |
| Fluency | 10 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Introducing the Center
## Last Number Wins, Stage 1

**Purpose:** Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by ones and writing two-digit numbers.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Gameboards.

**Demonstrate** how to play *Last Number Wins, Stage 1*. While demonstrating:

- **Say,** "You will play *Last Number Wins* today."
- **Say,** "First, you and your partner will choose the Gameboard you will use." Display Gameboard A.
- **Ask,** "I will choose to record the next 1, 2, or 3 numbers when counting by 1 on the Gameboard. I choose to record the next 2 numbers. If you count by 1, what are the next 2 numbers after 39?"
- **Record** the numbers 40 and 41 in the next 2 boxes.
- **Say,** "Take turns counting and recording 1, 2, or 3 numbers from left to right. The player who writes the last number on the Gameboard wins."

### Materials

**Classroom materials:**

- Distribute two different colors of dry-erase markers to each pair.

**Centers Resources:**

- Prepare Gameboards (A–D) by placing them in sheet protectors (Classroom materials) before the activity.
- Display the Directions and Gameboards (A–D) during the Launch.
- Distribute Gameboards (A–D) to each pair.

## Monitor

Monitor Storyboard Art FPO

***NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students determine the next numbers in the counting sequence. They may repeat the count sequence starting from the first number on the board, count on from the most recent number recorded, or use patterns to determine the number that comes next.

## Connect

Connect Storyboard Art FPO

X–X **Display** Gameboard A with the numbers recorded up to 49.

**Ask,** "How could a person figure out what number comes after 49?" Select and sequence responses using Rows 2–4 in the *Differentiation* table.

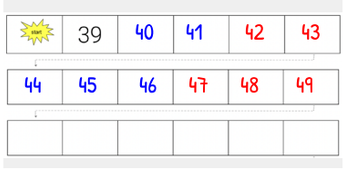
**Key Takeaway:** Say, "There are different strategies for finding the next number in a count sequence. It can be helpful to count on from a given number or use what you know about number patterns to find the number that comes next."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**


**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Count from 0 or 1 to determine the next number in the sequence. |  1, 2, 3, …, 48, 49, 50 | **Support:** Ask, "You started your count from 1. Could you start counting from another number to begin your count?" |
| Count on from the first number on the board to determine the next number in the sequence. | 39, 40, 41, …, 48, 49, 50 | **Strengthen:**Ask, "You counted on from the starting number. Where is another place you could begin counting?" |
| Count on from the most recent number recorded on the board to determine the next number in the sequence. | 49, 50 | **Stretch:** Have pairs predict who they think will write the last number, and then continue playing to see if their predictions were correct. |
| Use counting patterns or base-ten understanding to determine the next number in the sequence. | 1 more would make another group of 10. Then there would be 5 tens so the next number is 50. | |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 11

**Lesson Goal:** Write two-digit numbers to match different base-ten representations.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Write a two-digit number with the digits reversed.

**Respond:**

- **Mini-Lesson** | 15 min
  *Writing Two-Digit Numbers for Base-Ten Representations*
- **Lesson 11 Refresh Video**

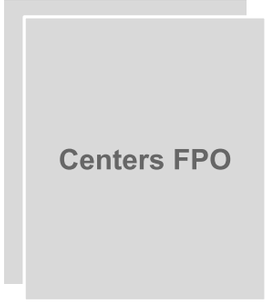

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Write a two-digit number to match by identifying the total value of the representation.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 3
  *Counting Collections*, Stage 3
  *Cover Up*, Stage 7
- **Lesson 11 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Write a two-digit number to match by identifying the amount of tens and ones in the representation.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

Reflect on how you could reinforce number writing outside of math class. When could you ask students to write two-digit numbers that represent amounts around them? What questions could you ask to help them find the tens and ones in these amounts?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 12**

# Steph's New Curioso Cards

## Adding Multiples of 10 and Two-Digit Numbers

Let's add tens and two-digit numbers.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Find the sum of a multiple of 10 and a two-digit number that is not a multiple of 10 within 100.
2. **Language Goal:** Explain the strategy used to find the sum of a multiple of 10 and a two-digit number that is not a multiple of 10 within 100. **(Speaking and Listening)**

Students continue to develop their conceptual understanding of addition within 100. This is the first time students add a multiple of 10 and a two-digit number that is not a multiple of 10. Students explore and develop strategies for finding sums of 2 two-digit numbers by representing, solving, and sharing strategies for finding sums in and out of context. Counting on from either addend by 10 and using place value understanding are highlighted; however, students should be encouraged to use any strategy to find sums. **(MP7)**

### Prior Learning

In Lesson 6, students found sums of 2 multiples of ten within 100. In Lessons 10–11, students created and interpreted a variety of base-ten representations of two-digit numbers, and recorded the total with written numerals.

### Future Learning

In Lesson 13, students will use place value understanding to mentally find 10 more or 10 less than a two-digit number.

## Rigor and Balance

- Students develop their **conceptual understanding** of place-value based strategies for addition within 100.
- Students **apply** their understanding of place value to solve problems with real-world contexts.

## Vocabulary

**Review Vocabulary**

- *addends*
- *a one/ones*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

**Add within 100, including**

**• a two-digit number and a one-digit number,**

**• a two-digit number and a multiple of 10.**

**Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.**

**Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten.**

**Relate the strategy to a written representation and explain the reasoning used.**

*Also Addressing*: NY-1.NBT.2

**Mathematical Practices:** MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-1.OA.1 | NY-1.NBT.5 |

**I am a doer of math.**
What are some choices you make as a mathematician?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.4, NY-1.NBT.2

## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Pairs | 15 min

Students solve *Add To, Result Unknown* story problems involving adding a two-digit number and a multiple of 10. They compare strategies including counting on by 10 and using what is known about the base-ten structure of numbers.


Screens X–X

## Activity 2 Independent | 15 min

Students find sums of two-digit numbers and multiples of 10. They participate in the **Mix and Mingle** routine to share and analyze a variety of strategies, including strategies using place value and the use of the commutative and associative properties.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on the different ways counting can be used to add a two-digit number and a two-digit number that is a multiple of 10, including counting on from either addend.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Check It Off, Stage 3
- Cover Up, Stage 7
- Last Number Wins, Stage 1





Screens X–X

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** connecting cubes (optional)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students find sums of addition expressions in which one or both of the two-digit addends are multiples of 10 to develop their understanding of place-value based strategies for addition within 100.

Presentation Screen X


A

50 + 10

60

B

50 + 20

70

C

50 + 40

90

D

50 + 45

95

**Why these problems?** These expressions lend themselves to counting on from 1 addend by 10 to find the sum.

## Launch

**Use the Number Talk routine.**

X–X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X–X **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expression D.

**Ask,** "How can you use the sum of 50 + 40 to help you to find 50 + 45?"

**Students might say . . .**

A: 50 plus 1 ten is 60.

B: Because 50 plus 1 ten is 60, then 50 plus 2 tens is 70.

C: I know that 50 is 5 tens and 40 is 4 tens. That is a total of 9 tens, and 9 tens is 90.

D: Because 50 + 40 is 90, then 5 more is 95.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Opening Booster Packs

**Purpose:** Students solve *Add To, Result Unknown* story problems to share and compare strategies for adding a multiple of 10 and a two-digit number.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "Steph loves to get new booster packs of Curioso cards. A booster pack is a sealed package that has a set of new cards inside. Something that makes opening booster packs exciting is finding out how many cards are inside."

**Read aloud** the directions and Problems 1–3.

**Provide** access to connecting cube towers of 10 and single cubes.

**[A] Accessibility: Executive functioning** Check for understanding of the task by asking students to make a list of the representations they can use to show their thinking and what their response should include.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider omitting Problem 3.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about the amounts in the story problem?"
- Ask, "What are you trying to find?"

## Connect

Connect
Storyboard Art
FPO

X–X **[L]** This Connect is structured as the *MLR7: Compare and Connect* routine.

**Display** Problem 1.

**Invite students to share** their strategies for solving. Select and sequence their responses in the order shown in Rows 3 and 4 in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:

- "How are the strategies the alike?"
- "How are the strategies different?"
- **[EL] Multilingual/English Learners:** Encourage students to discuss their strategies in their primary language before discussing in English. This will provide Multilingual Learners with additional time to make sense of the similarities and differences between the different strategies presented.

**Say** (if not yet mentioned during discussion), "The strategies are alike because they broke apart 38 into 3 tens and 8 ones. The strategies are different because one involves counting on and the other involves figuring out the total number of tens and ones."

**Key Takeaway:** Say, "There is more than 1 way to add two-digit numbers. You can think about breaking apart a number into tens and ones to find a sum."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

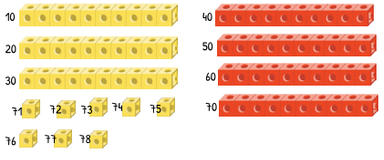
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count on by 1. |  <br>38, 39, 40, …, 78 | **Strengthen:** Ask, "What do you know about 40? How could you organize 40 in a different way, so you do not have to count each one?" |
| Count all by 10 and then by 1. |  | **Strengthen:** Ask, "You counted all the tens and ones. What is another way you could use counting to find the sum?" |
| Count on by 10 from either addend, and then by 1. | 40, 50, 60, 70, 71, 72, 73…78 | **Strengthen:** Ask, "How could you use what you know about the number of tens and ones in each addend to find the sum?" |
| Find the total amount of tens and the total amount of ones. | 7 tens and 8 ones is 78. | **Stretch:** Ask, "You found the total number of tens and the total number of ones. Why did you choose this strategy instead of using a counting strategy?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Independent | 15 min

# Activity 2 Mix and Mingle: Adding Tens and Two-Digit Numbers

**Purpose:** Students explore and share strategies for finding sums of two-digit numbers and multiples of 10 to deepen their conceptual understanding of place-value based strategies for adding 2 two-digit numbers.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "Think about if there is a strategy or strategies that your classmates shared in Activity 1 that you would like to try as you find more sums."

**Read aloud** the directions for Problems 4–7. Have students work independently for 4–5 minutes. Then have students meet with a partner and read aloud Problem 8.

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on Problems 4–5 before moving them on to Problem 6–7.

**Materials**

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 8**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What is a strategy someone shared in Activity 1 that you would like to try?"
- Ask, "How can you use what you know about tens to find the sum?"

## Connect

Connect Storyboard Art FPO

X–X **Say,** "You will meet in pairs to share how you solved Problem 7. Explain to your partner how you solved and why you solved the way you did."

**Use the Mix and Mingle routine.** Arrange students in pairs. Have students rotate to meet with a new partner 2–3 times.

**MLR8: Discussion Supports — Sentence Frames**
Display these sentence frames for students to use during the Mix and Mingle routine.

- "To solve Problem 7, I . . ."
- "I chose this strategy because . . ."
- "What do you mean by . . .?"
- "Why did you . . .?"
- [EL] **Multilingual/English Learners:** Encourage students to use wait time to give their group members time to rehearse and formulate a response before sharing.

**Ask**, "What is a strategy you want to try the next time you find the sum for problems like these?"

**Key Takeaway:** Say, "When choosing an addition strategy, you can think about what you know about two-digit numbers."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Explain that they found the sum. | I found that 30 and 57 is equal to 87. | **Support:** Ask, "How did you figure out that the sum is 87?" |
| Explain how they found the sum using a counting strategy. | I counted on from 57 by 1. 57, 67, 77, 87.<br>or<br>I counted on from 50 by 10. 50, 60, 70, 80. Then I counted on by 1 for the ones and got 87 as the sum. | **Strengthen:** Ask, "How could you find the sum without counting?" |
| Explain how they found the sum by reasoning about the amounts of tens and ones. | I know 30 has 3 tens and 57 has 5 tens, which makes 8 tens. 8 tens and 7 ones is 87. | **Strengthen:** Ask, "How could you represent your thinking to help someone understand your strategy?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** There are many ways to find the sum of two-digit numbers and multiples of 10 within 100.

Presentation Screens X–X


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

28 + 60 = _

X–X **Use the Think-Pair-Share routine. Ask,** "Steph said she counted to find the sum. How could she have counted?" Record students' thinking.

**Say** (if not yet mentioned during discussion), "There are many ways Steph could have counted the find the sum. She could have counted on from 28 by 10, 28, 38, 48, 58, 68, 78, 88. She could have counted on from 60 by 10 and then by 1, 60, 70, 80, 81, 82, 83, 84, 85, 86, 87, 88. Or she could have counted a different way."

**Say,** "There are many ways to find the sum of a two-digit number that has tens and ones and a two-digit number that is a number of tens. You might choose to use a counting strategy or use what you know about the addends as tens and ones to find a sum."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Find the sum of a multiple of 10 and a two-digit number that is not a multiple of 10 within 100.
2. **Language Goal:** Explain the strategy used to find the sum of a multiple of 10 and a two-digit number that is not a multiple of 10 within 100. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.2, NY-1.NBT.1 |
| | 2–9 | 1 | NY-1.NBT.2, NY-1.NBT.1 |
| **Spiral Review** | | | |
| | 10, 11 | 2 | NY-1.MD.4 |
| Fluency | 12 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Check It Off


**Stage 3 – Add or Subtract Tens**
**Pairs** | **15 min** | NY-1.NBT.4, NY-1.NBT.6

Students add and subtract multiples of 10 from multiples of 10 within 100.

**Materials**

- number cards (multiples of 10) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

## Cover Up


**Stage 7 – Add or Subtract 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students choose 2 number cards (two-digit multiples of 10) and add or subtract to practice finding sums and differences.

**Materials**

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## Last Number Wins

Placeholder for Center Icon

**Stage 1 – Numbers to 99 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 1 and writing two-digit numbers.

### Materials

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 12

**Lesson Goal:** Find the sum of a multiple of 10 and a two-digit number that is not a multiple of 10 within 100.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Count on from an addend by 1 to find the sum.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding Multiples of 10 and Two-Digit Numbers*
- **Lesson 12 Refresh Video**

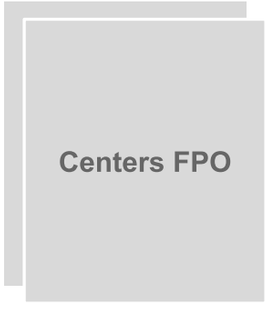

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Count all by 10 or count on by ten and then by 1.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 3
  *Cover Up*, Stage 7
  *Last Number Wins*, Stage 1
- **Lesson 12 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Find the total amount of tens and the total amount of ones.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

What methods did your students use to add tens to two-digit numbers? Which methods surprised you, and which did you expect?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 13**

# I See a Pattern

## Finding 10 More and 10 Less Than a Two-Digit Number

Let's find 10 more and 10 less.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Find 10 more and 10 less than a two-digit number.
2. **Language Goal:** Describe patterns when finding 10 more or 10 less than a two-digit number. **(Speaking and Listening)**
3. **Language Goal:** Make conjectures about finding 10 more and 10 less than a two-digit number. **(Writing, Speaking and Listening)**

Students find 10 more and 10 less than a given two-digit number and discuss the patterns that they notice in the sums and differences. Although students have previously explored strategies for adding and subtracting 10, this lesson focuses on identifying and using patterns in the numerals to find 10 more and 10 less without counting. Students may notice that when they add or subtract 10, the digit in the tens place increases or decreases by 1, respectively. Although this is not a pattern that is generalizable to all numbers, it is applicable to the two-digit numbers they add to and subtract from in these activities. **(MP7, MP8)**

### Prior Learning

In Lessons 5 and 6, students explored strategies to add 1 or more tens to and subtract 1 or more tens from multiples of ten. In Lesson 12, students added two-digit numbers with amounts of tens and ones to multiples of 10 within 100.

### Future Learning

In Sub-Unit 3, students will explore strategies for comparing two-digit numbers including using place value understanding.

## Rigor and Balance

- Students develop their **conceptual understanding** of how to use place-value based strategies to add and subtract 10 mentally.

## Vocabulary

**Review Vocabulary**

- *conjecture*
- *digit*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.5**

**Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.**

*Also Addressing*: NY-1.NBT.1, NY-1.NBT.2, NY-1.OA.6a

**Mathematical Practices:** MP7, MP8

**I am a doer of math.**
When have you used patterns to help you as a mathematician?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.5, NY-1.NBT.1, NY-1.NBT.2, NY-1.OA.6a

## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition and subtraction expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Pairs | 15 min

Students find 10 more and 10 less than given two-digit numbers. They describe patterns they notice and make conjectures about how two-digit numbers change when finding 10 more or 10 less.


Screens X–X

## Activity 2 Independent | 15 min

Students use the conjectures they made in Activity 1 to find 10 more or 10 less than a two-digit number repeatedly. They discuss and recognize that they can find 10 more or 10 less without counting by increasing or decreasing the digit in the tens place by 1.


Screens X–X

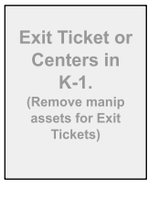
## Synthesis Whole Class | 5 min

Students review and reflect on how only the digit in the tens place changes when finding 10 more and 10 less than a two-digit number.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Last Number Wins, Stage 2*, in which they take turns writing the next 1, 2, or 3 numbers in a sequence to practice counting on by 10 from numbers less than 120 and writing two-digit numbers.
**Additional Prep** Prepare: Place Gameboards in sheet protectors




Screens X–X

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Classroom materials:** chart paper, markers

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students add and subtract 10 from numbers less than 20 to activate their prior knowledge of addition and subtraction within 20 and prepare them for adding and subtracting 10 from two-digit numbers greater than 20.

Presentation Screen X


| A | B |
|---|---|
| 3 + 10<br>13 | 10 + 5<br>15 |
| **C** | **D** |
| 13 − 10<br>3 | 15 − 10<br>5 |

**Why these problems?** These expressions lend themselves to reasoning about the base-ten structure of teen numbers.

## Launch

**Use the Number Talk routine.**

X-X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X-X **Record** sums and differences and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions B and D.

**Ask,** "How could you use Expression B to find the difference of Expression D?"

**Students might say . . .**

A: I know 10 and 3 ones is 13.

B: I know 10 + 5 = 15.

C: The difference is 3 because if you take away 1 ten from 13, the 3 ones will be left.

D: I know 15 is 1 ten and 5 ones, so if I take away 10, 5 ones are left.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 10 More, 10 Less

**Purpose:** Students find 10 more and 10 less than given two-digit numbers to make conjectures about when and how the digits change.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Say**, "The amount of items in Steph, Yara, Prashant, Boris, and Milton's collections are always changing. When Yara goes to a concert, she often brings home new guitar picks to add to her collection. Steph and Prashant often get new Curioso cards, and sometimes they even give cards from their collections to new collectors to help them build their own collections!"

**Say**, "Just like the size of collections change, two-digit numbers change when an amount is added or subtracted. As you find 10 more and 10 less than the two-digit numbers, think about patterns you notice about how the numbers change."

**Read aloud** Problems 1–3.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (as needed).

**Classroom materials:**

- Use chart paper and markers to record students' conjectures during the Connect.

**Short on time?** Consider omitting Problem 3.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you already know about finding 10 more?"
- Ask, "What do you already know about finding 10 less?"

**[A] Accessibility: Visual-spatial processing** Make connecting cubes available to students to support their ability to find and represent 10 more or 10 less.

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their responses to Problem 3 in the order shown in the *Differentiation* table.

**[L] MLR8: Discussion Supports — Make a Conjecture**

**Say**, "Think about what you noticed when finding 10 more and 10 less than a two-digit number."

**Use the Think-Pair-Share routine.** Ask, "What conjectures can you make? Remember that a conjecture is a statement that you believe is always true using the information you have."

**[EL] Multilingual/English Learners:** Provide wait time to allow students to formulate a conjecture about finding 10 more or 10 less than a number. Encourage students to rehearse their conjecture response with a partner before sharing with the class.

**Record** students' responses on chart paper. For each conjecture, ask, "Why do you believe this statement is always true?"

**Key Takeaway:** Say, "When you find 10 more or 10 less than a two-digit number, the digit in the tens place changes and the digit in the ones place does not change."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Notice the number increased when finding 10 more and decreased when finding 10 less. | When we found 10 more, the answer was more. When we found 10 less, the answer was less. | **Strengthen:** Ask, "What do you notice about the digits in the numbers you wrote for 10 less and 10 more?" |
| Notice the digit in the tens place changed and the digit in the ones place did not change. | When we found 10 more or 10 less, the digit in the tens place changed and the digit in the ones place did not change. | **Strengthen:** Ask, "How did the digit in the tens place change?" |
| Notice the digit in the tens place changed by 1 each time, and notice the digit in the ones place did not change. | When we found 10 more, the digit in the tens place became larger by 1. When we found 10 less, the digit in the tens place became less by 1. The digit in the ones place did not change. | **Stretch:** Ask, "What do you think happens to the digit in the tens place when you find 20 more or 20 less? Explain your thinking." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Independent | 15 min

# Activity 2 Patterns With Tens

**Purpose:** Students use the conjectures they made in Activity 1 to notice that they can find 10 more and 10 less than a two-digit number without counting.

**Presentation Screens X–X**


**Materials**

**Manipulative Kit:**

- Provide students with access to connecting cubes (as needed).

## Launch

Launch Storyboard Art FPO

X–X Read aloud the directions.

**Say,** "Think about the conjectures you made in Activity 1 as you find the numbers that make these equations true."

**[A] Accessibility: Visual-spatial processing** Make connecting cubes available to students to support their ability to find and represent 10 more or 10 less.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "Is there a conjecture that someone shared that might help find 10 more [less]??"
- Point to a conjecture about how the digits change when finding 10 more. Say, "Think about how this conjecture could help you."

## Connect

Connect Storyboard Art FPO

X–X **[L] MLR1: Stronger and Clearer Each Time**

Have students meet with 1–2 other students to share their responses to Problem 7. Encourage listeners to ask clarifying questions using stems, such as:

- "What do you mean by . . .?"
- "Can you tell me more about . . .?"

Have students revise their responses based on the feedback they receive.

**Ask:**

- "How could you use patterns to find 10 more or 10 less?"
- "Did your thinking change when you met with a classmate? How did it change?"

**Key Takeaway:** Say, "You can use patterns to help you to find 10 more and 10 less than a two-digit number without counting. It can be helpful to think about how the digit in the tens place should change to show that there is 1 more ten or 1 fewer ten."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . (67 + 10) | Provide support . . . |
|---|---|---|
| Count on by 1 to find the sums. | 67, 68, 69, . . . , 77 | **Support:** Ask, "What conjecture shared in Activity 1 could you use to find the sums without counting?" |
| Count on by 10 to find the sums. | 67, 77 | |
| Use patterns to find the sums. | 1 more than 6 is 7, so 67 + 10 = 77 | **Stretch:** Ask, "Do you think this strategy will always work? Can you think of an example in which this is not true?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When finding 10 more or 10 less than a two-digit number, understanding how the digit in the tens place changes can be helpful to find the sum or difference without counting.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

X–X **Say**, "Yara counted her guitar picks and wrote a two-digit number to represent how many she has. Part of the number she wrote got covered up."

**Ask:**

- "What number could be 10 more? How do you know?
- "What number could be 10 less? How do you know?"

**Say**, "When finding 10 more and 10 less, the digit in the tens place changes and the digit in the ones place does not."

4

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Find 10 more and 10 less than a given two-digit number.
2. **Language Goal:** Describe patterns when finding 10 more or 10 less than a two-digit number. **(Speaking and Listening)**
3. **Language Goal:** Make conjectures about finding 10 more and 10 less than a two-digit number. **(Writing, Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–8 | 1 | NY-1.NBT.5 |
| **Spiral Review** | | | |
| | 9, 10 | 2 | NY-1.MD.4 |
| Fluency | 11 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Let's Play
## Last Number Wins, Stage 2

**Purpose:** Students take turns writing the next 1, 2, or 3 numbers in the sequence to practice finding 10 more than a two-digit number and writing two-digit numbers.

**Presentation Screens X–X**


### Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Gameboards.

**Demonstrate** how to play *Last Number Wins, Stage 2*. While demonstrating:

- **Say**, "You will play *Last Number Wins* today."
- **Say**, "First, you and your partner will choose the Gameboard you will use. Then you will take turns counting by 10 and recording the numbers." Display Gameboard A.
- **Ask**, "On my turn, I will choose if I want to record the next 1, 2, or 3 numbers when counting by 10 on the Gameboard. I choose to record the next 2 numbers. If you count by 10, what are the next 2 numbers after 3?"
- **Record** the numbers 13 and 23 in the next 2 boxes.
- **Say**, "You and your partner will take turns counting and recording 1, 2, or 3 numbers from left to right. The player who writes the last number on the Gameboard wins."

### Materials

**Classroom materials:**

- Distribute two different colors of dry-erase markers to each pair of students.

**Centers Resources:**

- Prepare Gameboards (A–D) by placing them in sheet protectors **(Classroom materials)** before the activity.
- Display the Directions and Gameboards (A–D) during the Launch.
- Distribute Gameboards (A–D) to each pair.

### Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students determine the next numbers in the counting sequence. They may repeat the count sequence starting from the first number on the board, count on from the most recent number recorded, or use patterns to determine the number that comes next.

### Connect

Connect Storyboard Art FPO

X–X **Display** Gameboard A with numbers recorded up to 63.

**Ask**, "How could a person figure out what number comes after 63?" Select and sequence students' responses in the order shown in the *Differentiation* table.

**Key Takeaway:** Say, "Today, you counted on by 10 from a number and recorded the next number, or numbers, in the counting sequence. Some students counted from 10, some counted on from a number on the Gameboard, and some used counting patterns to find the next number to write."

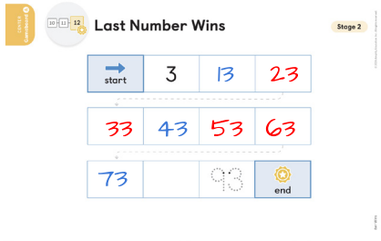
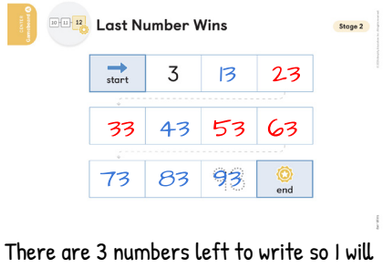
This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**

Center Direction Sheet

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Write 1 number on each turn. |  <br>The last number is 63 so I wrote 73. | **Strengthen:** Ask, "What can you choose to do on each turn? How did you decide to write just 1 number on this turn?" |
| Think strategically about if they want to write 1, 2, or 3 numbers on each turn. |  <br>There are 3 numbers left to write so I will write them all and win. | **Stretch: :** Display a Gameboard with the top row filled in. Ask, "If you were playing with this Gameboard and it was your turn, would you write 1, 2, or 3 numbers? Why?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 13

**Lesson Goal:** Find 10 more and 10 less than a given two-digit number.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Count by 1 to find 10 more or 10 less.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson 13 Refresh Video**

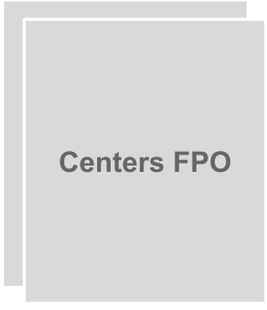

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Count by 10 to find 10 more or 10 less.

**Respond:**

- **Centers** | 15 min
  *Check It Off*, Stage 3
  *Cover Up*, Stage 7
  *Last Number Wins*, Stage 1
- **Lesson 13 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Use patterns to find 10 more or 10 less.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

Why is a strong understanding of the unit ten necessary to add or subtract 10 mentally?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 14**

# Steph's Growing Collection

## Comparing Two-Digit Numbers Using *Greater Than* and *Less Than*

Let's compare two-digit numbers.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Compare 2 two-digit numbers.
2. **Language Goal:** Justify comparisons of two-digit numbers using *greater than* and *less than*. **(Speaking and Listening)**

Students have an opportunity to apply their developing understanding of place value and the composition of two-digit numbers as they compare 2 two-digit numbers. Students first describe what they notice about pairs of two-digit numbers to recognize and describe numbers as amounts of tens and ones and surface familiar comparison language. They then compare 2 two-digit numbers using any strategy and describe the comparisons using formal mathematical language. Students are encouraged to use the terms **greater than** and **less than** as they share their thinking with peers so that they become familiar with this language before attaching it to comparison symbols in subsequent lessons. **(MP6, MP7, MP8)**

### Prior Learning

In Kindergarten, students counted and compared objects, images, and written numbers from 1 to 10 using the terms *more*, *less*, *fewer*, and *same*. In Sub-Unit 2, students created base-ten representations and interpreted the value of two-digit numbers. They recognized that the value of a digit is determined by its place in the number.

### Future Learning

In Lesson 15, students will continue to compare two-digit numbers and will begin to attend to the value of individual digits to make comparisons.

## Rigor and Balance

- Students build **conceptual understanding** of comparing two-digit numbers.

## Vocabulary

**New Vocabulary**

- **greater than**
- **less than**

**Review Vocabulary**

- *fewer*
- *less*
- *more*

## Standards

**Addressing**

**NY-1.NBT.3**

**Compare two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.**

*Also Addressing*: NY-1.NBT.1, NY-1.NBT.2

**Mathematical Practices:** MP6, MP7, MP8

**Building On**

| | |
|---|---|
| NY-K.CC.6 | |
| NY-K.CC.7 | |

**I can be all of me in math class.**
In the Unit Story, Steph is excited about collecting Curioso cards. What do you get excited about?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.2

## Warm-Up Whole Class | 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about narrative-related images and two-digit numbers. The same images are used in Activity 1.


Screens X–X

## Activity 1 Pairs | 15 min

Students look at 2 two-digit numbers and describe what they notice to review their understanding of the meaning of the digits before comparing two-digit numbers in Activity 2.
**Additional Prep** Prepare: two-column chart titled *Words to Compare*; Assemble: towers of 10 cubes; Display: Posters A–F from the Activity 1 PDF in order by letter in various places around the classroom


Screens X–X

## Activity 2 Pairs | 15 min

Students record 2 two-digit numbers and compare them. They describe the comparisons using **greater than** and **less than**, which are introduced in the Launch. During the Connect, students share their strategies for comparing two-digit numbers.


Screens X–X

## Synthesis Whole Class | 5 min

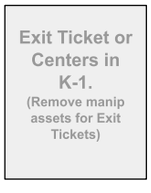
Students review and reflect on strategies that can be used to compare 2 numbers and the language that mathematicians use to describe these comparisons.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting and writing two-digit numbers.

- Cover Up, Stage 7
- Last Number Wins, Stage 1
- Last Number Wins, Stage 2


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF (for display), Activity 2 PDF
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** chart paper, markers, paper clips, *Words to Compare* chart (teacher made), *Words to Describe Numbers* chart (from prior lessons)

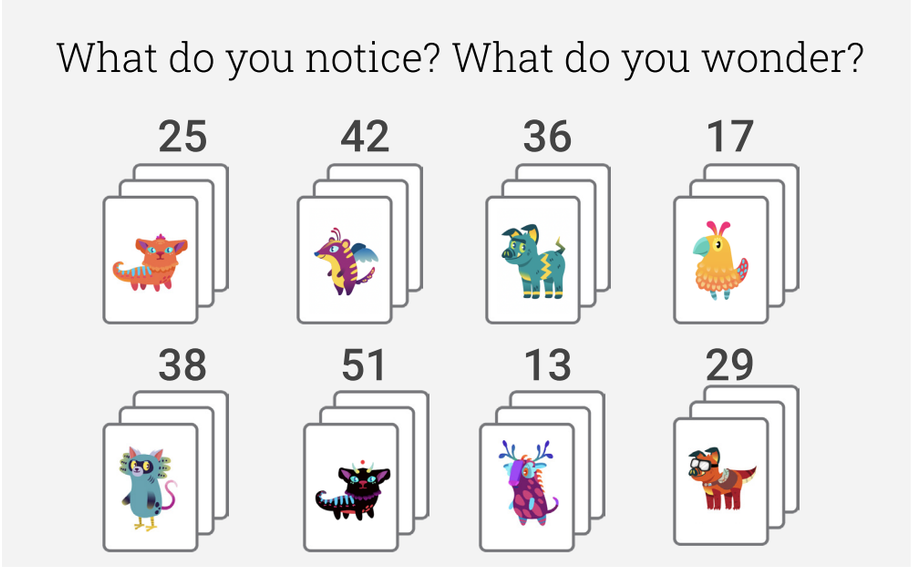
This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students examine images of Curioso cards to prepare them for describing what they notice about the numbers in Activity 1.

Presentation Screen X


## Launch

X-X **Display** the image.

**Use the Notice and Wonder routine.**

**Say,** "Here are some of the Curioso cards Steph has collected."

**Ask,** "What do you notice? What do you wonder?"

**Use the Think-Pair-Share routine.**

## Connect

X-X **Record** students' responses as they share.

**Use the Think-Pair-Share routine.** Ask, "The numbers show how many cards are in each stack. If you could choose, which of these stacks of Curioso cards would you want? Why?"

**Say,** "You will continue to work with amounts of Curioso cards in the next activity."

**Students might say . . .**

I notice that the cards have animals.

I notice that each of the animals is a different color.

I wonder what the numbers mean.

I wonder why there are different numbers.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Curioso Characters Tour

**Purpose:** Students analyze and describe pairs of two-digit numbers to demonstrate their understanding of the base-ten structure of numbers and activate prior knowledge about comparing numbers.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Display** the *Words to Describe Numbers* chart and the Activity 1 PDF.

**Say**, "When Steph and her mom got home from the flea market, Steph decided to sort her cards into groups by the characters on the cards. Each displayed poster shows the amount of cards in 2 of Steph's sorted groups."

**Assign** each pair of students to 1 poster. Explain that more than 1 pair of students may discuss a poster at the same time.

**Read aloud** Problems 1 and 2.

**Say**, "First take time to think about the numbers on your own. Then discuss your ideas with your partner. You can use the *Words to Describe Numbers* chart if it is helpful. When you finish discussing, rotate to the next poster."

**Provide** access to connecting cube towers of 10 and single cubes.

### Materials

**Lesson Resources:**
- Display the posters from the Activity 1 PDF in order by letter in various places around the classroom with enough space for students to gather.

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Use chart paper and markers to create the *Words to Compare* chart before the activity.
- Display the *Words to Describe Numbers* chart (from prior lessons).

**Short on time?** Consider having pairs visit and discuss 2–3 posters instead of all 6.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What numbers are on the poster? What is 1 thing you notice about these numbers?"
- Ask, "Pick 1 of the numbers. What is 1 thing you can describe about that number?"

[A] **Accessibility: Conceptual processing** Guide processing by providing questions students can ask themselves to analyze the structure of the representations. For example, "How many tens and ones are in each number? How are the numbers similar? How are they different?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their responses to Problem 2. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**[L] MLR2: Collect and Display**

- Collect any student language used to compare numbers, such as *more, bigger,* and *greater than* in Column 1, and *less, fewer, smaller,* and *less than* in Column 2, on the prepared *Words to Compare* chart. Update and refer to the display throughout the remainder of the unit.
- **[EL] Multilingual/English Learners:** Add and connect visual examples to the collected language and make explicit connections to ideas that are discussed.

**Key Takeaway:** Say, "You have learned a lot about two-digit numbers. In the next activity, you will use what you know to compare two-digit numbers."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . Poster F | Provide support . . . |
|---|---|---|
| **Almost there** Describe each number individually. |  <br>I notice that 25 has 2 tens and 5 ones. I also notice that 42 has 4 tens and 2 ones. | **Support:** Ask, "Do you notice anything about these numbers that is the same? Do you notice anything that is different?" |
| Describe similarities or differences between the numbers. | I notice that 25 has 2 tens, and 42 has 4 tens. 25 has 5 ones, and 42 has 2 ones.<br>or<br>I notice the numbers have tens and ones. | **Strengthen:** Ask, "You noticed that 1 card has 2 tens and the other has 4 tens. What does the number of tens in each number tell you about which group has more cards?" |
| Describe a relationship between the 2 amounts. | I notice Steph has more cards with this character because 42 is more than 25. | **Stretch:** Say, "Talk with your partner about how you know 42 is more than 25." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Greater Than or Less Than?

**Purpose:** Students compare two-digit numbers and practice using the comparison language **greater than** and **less than** to describe the comparisons.

Presentation
Screens X–X


## Launch

Launch
Storyboard Art
FPO

X–X **Display** the *Words to Compare* chart from Activity 1.

**Say**, "When comparing 2 numbers, you can say that one number is more, or **greater than**, the other number. You can also say one number is **less than** the other number." Record *greater than* and *less than* as the column headings on the chart.

**Read aloud** all the directions for Activity 2.

**Say**, "Each partner will spin the spinner. If you land on the same number, spin again so you have different numbers. Then use any strategy to compare the numbers."

**Read aloud** Problems 5 and 8.

**Say**, "For these problems, practice using *greater than* and *less than* to describe your comparisons."

**Provide** access to connecting cube towers of 10 and single cubes.

**[A] Accessibility: Conceptual processing** Guide processing by asking students to identify which details are the most important when comparing numbers. Invite students to make observations about the value of the digits and think about how their observations could be used to make comparisons.

### Materials

**Lesson Resources:**
- Distribute the Activity 2 PDF to each pair during the Launch.

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Distribute one paper clip to each pair during the Launch.
- Display the *Words to Compare* chart (from Activity 1) and the *Words to Describe Numbers* chart (from prior lessons).

## Monitor

Monitor
Storyboard Art
FPO

***NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 8**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What does it mean to compare numbers?"
- Ask, "How could you find which number is greater than the other?"

**[L] MLR1: Stronger and Clearer Each Time**

After students have completed Problems 6 and 7, have pairs meet with 1–2 other pairs to share their responses for Problem 8. Encourage listeners to ask clarifying questions, such as:
- "What do you mean by . . .?"
- "Can you tell me more about . . .?"
- **[EL] Multilingual/English Learners:** Allow students to rehearse what they will say with a partner before sharing with other pairs.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** 50 and 23.

**Use the** Think-Pair-Share **routine.** Ask, "Which number is less? How do you know?" Encourage students to use the *Words to Describe Numbers* chart and the *Words to Compare* chart for language support.

**Invite students to share** their thinking. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Ask**, "Did you hear any other words or phrases that should be included on the *Words to Compare* chart?" As students share responses, update the display by adding language or annotations.

**Play** the animation.

**Key Takeaway:** Say, "There is more than one way to compare two-digit numbers. You can use what you know about counting, or you can think about the number of tens and ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

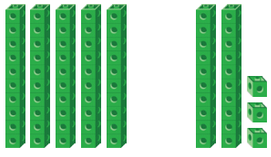
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Compare the numbers by representing each amount and comparing the totals. |  23 is less than 50 because it has fewer cubes. | **Strengthen:** Ask, "How could you compare the numbers without representing them with cubes?" |
| Compare the numbers by counting or using knowledge of the count sequence. | 23 is less than 50 because 23 comes before 50 when you count. | **Strengthen:** Ask, "What do you notice about the digits? How could you use what you notice about the digits to compare the numbers?" |
| Compare the numbers using place value understanding. | 23 is less than 50 because it only has 2 tens and 50 has 5 tens. | **Stretch:** Ask, "Why did you focus only on the tens in each number?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When comparing the values of 2 two-digit numbers, comparison language, such as **greater than** and **less than**, can be used.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)


____ is greater than ____.

____ is less than ____.

X–X **Use the Think-Pair-Share routine.** Ask, "What is a true statement you can make about 2 of these numbers using *greater than* or *less than*?"

**Say,** "You will continue to explore how to compare two-digit numbers in the next lesson."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Compare 2 two-digit numbers.
2. **Language Goal:** Justify comparisons of two-digit numbers using *greater than* and *less than*. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–8 | 1 | NY-1.NBT.3 |
| **Spiral Review** | | | |
| | 9, 10 | 2 | NY-1.MD.4 |
| Fluency | 11 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 7 – Add or Subtract 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students choose 2 number cards (two-digit multiples of 10) and add or subtract to practice finding sums and differences.

**Materials**

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

Placeholder for Center Divider and Instructions Sheet.

## Last Number Wins


**Stage 1 – Numbers to 99 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 1 and writing two-digit numbers.

**Materials**

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## Last Number Wins

**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Placeholder for Center Icon

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 10 and writing two-digit numbers.

### Materials

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

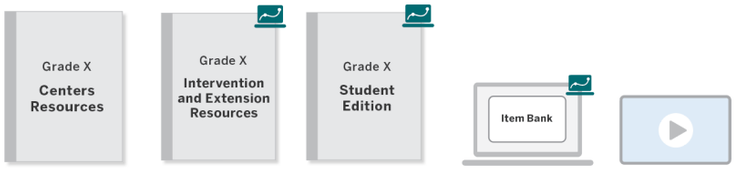
# Differentiation Use after Lesson 14

**Lesson Goal:** Compare 2 two-digit numbers.

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students:** Compare individual digits rather than the value using the place they hold in the two-digit number.<br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>*Mini-Lesson Title Goes here*<br>• **Lesson 14 Refresh Video** | **If Students:** Compare two-digit numbers using the count sequence.<br>**Respond:**<br>• **Centers** \| 15 min<br>*Cover Up*, Stage 7<br>*Last Number Wins*, Stages 1 and 2<br>• **Lesson 14 Practice** \| 15 min<br>• **Item Bank** | **If Students:** Compare two-digit numbers using place value reasoning.<br>**Respond:**<br>• **Sub-Unit 3 Extension Activities** \| 15 min |
| Mini-Lesson FPO | Centers FPO | Extension FPO |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

Today, students used formal mathematical language to describe comparisons. What additional supports might be needed in upcoming lessons for students who may still be developing an understanding of this language?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 15**

# Greater Than, Less Than

## Making Conjectures About Comparing Two-Digit Numbers

Let's use what we know about two-digit numbers to compare them.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Compare 2 two-digit numbers.
2. **Language Goal:** Make conjectures about comparing 2 two-digit numbers. **(Speaking and Listening)**
3. **Language Goal:** Justify comparisons of two-digit numbers by reasoning about the values of the digits. **(Speaking and Listening)**

Students compare two-digit numbers and discuss what they notice is true about the numbers that are greater and the numbers that are less. They use these noticings to make conjectures about comparing 2 two-digit numbers. Then they test a given conjecture to recognize that when the digit in the tens place is the same in each number, the digits in the ones place must be compared to know which is greater or less. **(MP3, MP7, MP8)**

### Prior Learning

In Lesson 14, students compared 2 two-digit numbers using the terms *greater than* and *less than*.

### Future Learning

In Lesson 16, students will be introduced to the comparison symbols > and < and will interpret comparison statements written with the symbols.

## Rigor and Balance

- Students develop **conceptual understanding** of strategies for comparing two-digit numbers.
- Students **apply** their understanding of the meanings of the digits to compare two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *conjecture*
- *digit*
- *greater than*
- *less than*

## Standards

**Addressing**

**NY-1.NBT.3**

**Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.**

*Also Addressing*: NY-1.NBT.1, NY-1.NBT.5,

**Mathematical Practices:** MP3, MP7, MP8

**Building On**

| | |
|---|---|
| **NY-1.NBT.2** | |

**I can be all of me in math class.**
How have you grown as a mathematician this school year?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.5

## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition and subtraction expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Pairs | 15 min

Students compare 2 two-digit numbers. They describe what they notice is true about the numbers that are greater and the numbers that are less and make conjectures about comparing two-digit numbers.


Screens X–X

## Activity 2 Pairs | 15 min

Students use the **Mix and Mingle** routine to compare numbers, many of which have the same amount of tens. They test a conjecture about comparing the amount of tens only to recognize that when 2 numbers have the same amount of tens, the ones need to be compared.

**Additional Prep** Cut out: Activity 2 PDF


Screens X–X

## Synthesis Whole Class | 5 min

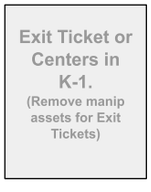
Students review and reflect on how to compare 2 two-digit numbers that have the same digit in the tens place.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting and writing two-digit numbers.

- Cover Up, Stage 7
- Last Number Wins, Stage 1
- Last Number Wins, Stage 2


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 2 PDF
- **Manipulative Kit:** connecting cubes (optional)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students add and subtract 10 from two-digit numbers to practice strategies for mentally finding 10 more and 10 less than a number.

Presentation Screen X


| A | B |
|---|---|
| 35 + 10<br>45 | 52 + 10<br>62 |
| **C** | **D** |
| 52 − 10<br>42 | 83 − 10<br>73 |

**Why these problems?** These expressions lend themselves to recognizing that with certain two-digit numbers, only the digit in the tens place changes when adding or subtracting 10.

## Launch

**Use the Number Talk routine.**

**Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

**Record** sums and differences and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions B and C.

**Ask,** "Which expression has a value that is less: 52 + 10 or 52 − 10? How do you know?"

**Students might say . . .**

A: 45. I started with 35 and counted on 10.

B: 62. I know that 50 + 10 is 60. Then I added the 2 ones to get 62.

C: 42. I know 50 - 10 = 40. 40 + 2 = 42

D: 73. There are 8 tens in 83, so I took away 1 ten and got 73.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Comparing Curioso Cards

**Purpose:** Students compare pairs of two-digit numbers and discuss what they notice about the numbers that are greater and the numbers that are less to make conjectures about comparing two-digit numbers.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "While meeting Prashant's friends, Steph noticed they were playing a game with their Curioso cards. Players would name a character and then each would compare the number of cards they had with that character. Just like Prashant's friends, you will compare numbers to figure out which number is greater or which number is less."

**Read aloud** the directions and Problems 1–6. Have students work for 4–5 minutes.

**Provide** access to connecting cube towers of 10 and single cubes.

**Read aloud** Problem 7. Have students discuss for 2 minutes.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with students and providing feedback on Problems 1–3 before moving them on to Problems 5 and 6.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cube towers of 10 and single cubes (optional).

**Short on time?** Consider omitting Problems 3 and 6.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you know about each of these numbers?"
- Ask, "What strategies have you used to help you find which number is greater?"

## Connect

Connect
Storyboard Art
FPO

X–X **Invite students to share** their responses to Problem 7. Record students' noticings.

[L] MLR8: Discussion Supports — Make a Conjecture

**Use the Think-Pair-Share routine**. Ask, "What conjectures can you make about comparing 2 two-digit numbers? Think about what is always true when a number is greater than or less than another number."

- [EL] **Multilingual/English Learners:** Provide wait time to allow students to formulate a conjecture about comparing two-digit numbers. Encourage students to rehearse their response with a partner before sharing it with the class.

**Record** students' responses. For each conjecture, ask:

- "Why do you believe this conjecture is always true?"
- "Are there any counterexamples that show this conjecture is false?"

**Key Takeaway:** Say, "In the next activity, you will test a conjecture to see if it is always true."

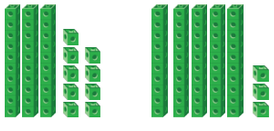
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Compare the numbers by reasoning about the value of individual digits. | 39 is greater than 53 because it has 9, and 9 is the biggest number. | **Support:** Ask, "What do you notice about the tens in each number? How can you use that to figure out which number is less than the other number?" |
| Compare the numbers using drawings or cubes. |  39 is less than 53 because 53 has 5 towers of 10, and 39 has 3 towers of 10. | **Strengthen:** Ask, "You noticed 39 is less than 53 because it has less tens. How could you figure this out without using cubes or drawings?" |
| Compare the numbers using place value reasoning. | 39 is less than 53 because 39 has a 3 in the tens place, and 53 has a 5 in the tens place. 3 tens is less than 5 tens. | **Stretch:** Ask, "You compared the digits in the tens place of each number. Would this strategy work for comparing any 2 two-digit numbers? How do you know?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Mix and Mingle: Compare

**Purpose:** Students compare 2 two-digit numbers, including two-digit numbers with the same amount of tens, to test a conjecture about how to compare two-digit numbers.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "In Activity 1, you made conjectures about comparing 2 two-digit numbers. Let's look at this conjecture."

**Display** and read aloud the conjecture "When comparing two-digit numbers, you only need to compare the digits in the tens place."

**Say,** "For Problem 8, you will meet with a partner and compare the numbers on your cards. Discuss how you know which number is greater and which number is less. As you compare, test the conjecture."

**Use the Mix and Mingle routine**. Place students in pairs to compare their numbers. After each round, have students trade cards and find a new partner. Repeat 2–3 times.

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Conceptual processing** Guide processing by providing questions students can ask themselves, such as, "How many tens does each number have? How many ones does each number have?"

**Read aloud** the conjecture a second time and then read aloud Problem 9.

### Materials

**Lesson Resources:**
- Distribute one pre-cut card from the Activity 2 PDF to each student.

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 9**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What strategies did you see or hear your classmates use to compare numbers in Activity 1? Can you try one of those strategies?"

[EL] **Multilingual/English Learners:** Encourage all students to use gestures, such as using their fingers to represent amounts of tens and ones and pointing when explaining if they think the conjecture is true or false, to help their partners understand.

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their responses to Problem 9. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**MLR8: Discussion Supports — Active Listening**
- Invite students to restate the response to Problem 9 using Row 3 in the *Differentiation* table, in their own words, before sharing their own examples that prove the conjecture is false.

**Say,** "You found examples that show the conjecture is true, but because you also found examples that show it is false, that means the conjecture is false."

**Key Takeaway:** Say, "When comparing 2 two-digit numbers, you can use what you know about the digits to compare. You begin by comparing the digits in the tens place because tens have a greater value than ones. If the digits in the tens place are the same in each number, then you have to compare the digits in the ones place."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Explain why the conjecture is true. | The conjecture is true because you only need to compare the tens. | **Support:** Ask, "How would you compare 2 numbers that have the same digit in the tens place?" |
| **Almost there** Explain why the conjecture is true and provide an example. | The conjecture is true because you only need to compare the digits in the tens place. For example, 47 is greater than 38 because 4 tens is greater than 3 tens. | |
| Explain why the conjecture is false and provide an example. | The conjecture is false because sometimes you need to compare the digits in the ones place too. For example, 43 and 47 have 4 tens, so you can't just compare the tens. You need to compare the ones. | **Stretch:** Ask, "What other examples can you think of that prove the conjecture is false?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When comparing 2 two-digit numbers, the digits in the tens place of each number are compared. If 2 numbers have the same amount of tens, then the digits in the ones place must be compared.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

27 23

X–X **Say,** "Steph tried out the Curioso comparing game with her friend Kat. They each counted a group of cards and recorded the numbers 27 and 23. Kat is unsure which number is less because the numbers have the same amount of tens."

**Use the Think-Pair-Share routine.** Ask, "What would you tell Kat to help her figure out which number has a value that is less?"

**Say,** "When comparing two-digit numbers, sometimes only the digits in the tens place need to be compared. Sometimes the digits in the ones place need to be compared."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Compare 2 two-digit numbers.
2. **Language Goal:** Make conjectures about comparing 2 two-digit numbers. **(Speaking and Listening)**
3. **Language Goal:** Justify comparisons of two-digit numbers by reasoning about the values of the digits. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.3 |
| **Spiral Review** | | | |
| | 5, 6 | 2 | NY-1.MD.4 |
| | 7 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 7 – Add or Subtract 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students choose 2 number cards (two-digit multiples of 10) and add or subtract to practice finding sums and differences.

**Materials**

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 1.**

Placeholder for Center Divider and Instructions Sheet.

## Last Number Wins


**Stage 1 – Numbers to 99 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 1 and writing two-digit numbers.

**Materials**

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Last Number Wins

Placeholder for Center Icon

**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 10 and writing two-digit numbers.

### Materials

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 15

**Lesson Goal:** Compare 2 two-digit numbers.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Compare the numbers by reasoning about the value of individual digits.

**Respond:**

- **Mini-Lesson** | 15 min
  *Making Conjectures About Comparing Two-Digit Numbers*
- **Lesson 15 Refresh Video**


## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Compare the numbers using drawings or cubes.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 7
  *Last Number Wins*, Stages 1 and 2
- **Lesson 15 Practice** | 15 min
- **Item Bank**


## Stretch

Challenge students and extend their learning with these resources.

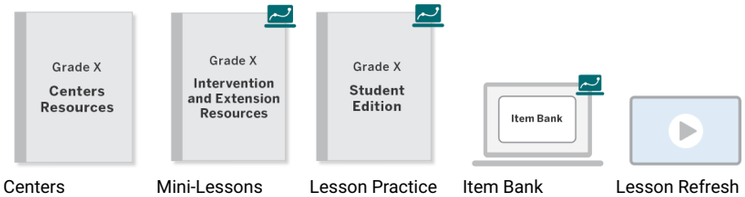
**If Students:** Compare the numbers using place value reasoning.

**Respond:**

- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

Today, students used the value of the digits in the tens and ones places to make conjectures about comparing numbers. What did students' conjectures reveal about their understanding? What conjectures do you want to revisit and discuss further?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 16**

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


# Mystery Symbols

## Exploring Comparison Symbols

Let's discover the meaning of mystery math symbols.

## Focus and Coherence

### Today's Goals

1. **Goal:** Read and interpret comparison statements about two-digit numbers that include the > and < symbols.
2. **Language Goal:** Justify if comparison statements that include the > and < symbols are true or false. **(Reading, Speaking, and Listening)**

Students explore comparison statements in which pairs of two-digit numbers are compared using the symbols > and <. They first examine pairs of statements that include the same 2 numbers but use different comparison symbols to consider possible meanings for each symbol. They discuss the numbers, the symbols, and their placement to connect their understanding of describing numbers with *greater than* or *less than* to the abstract symbols. Students reason about the orientation of each symbol and their meanings to justify if comparison statements are true or false. **(MP6, MP7, MP8)**

### Prior Learning

In Lesson 14, students compared two-digit numbers using the terms *greater than* and *less than*. In Lesson 15, students explored and discussed how to compare two-digit numbers by attending to the meaning of the digits.

### Future Learning

In Lesson 17, students will use greater than and less than symbols to complete comparison statements to make them true.

## Rigor and Balance

- Students develop **conceptual understanding** of strategies for comparing two-digit numbers.
- Students **apply** their understanding of the meanings of the digits to compare two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *equal*
- *greater than*
- *less than*

## Standards

### Addressing

**NY-1.NBT.3**

**Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.**

*Also Addressing*: NY-1.NBT.1, NY-1.NBT.5,

**Mathematical Practices:** MP3, MP6, MP7, MP8

### Building On

**NY-1.NBT.2**

**I am a doer of math.**

When is it helpful to use symbols in math, rather than words?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.5

## Warm-Up Whole Class | 10 min

Students use the **True or False?** routine, in which they determine whether a series of equations are true or false by using their understanding of adding and subtracting 10. **(MP3, MP7)**


Screens X–X

## Activity 1 Small Groups | 20 min

Students analyze true comparison statements with the same two-digit numbers that use the > and < symbols to reason about the meaning of each symbol. They are then formally introduced to the meaning of each symbol and make connections between comparison language and each symbol.

**Additional Prep** Display: Posters A–F from the Activity 1 PDF in order by letter in various places around the classroom


Screens X–X

## Activity 2 Pairs | 10 min

Students evaluate a series of comparison statements that use the >, <, and = symbols. They use their understanding of comparing 2 two-digit numbers and the >, <, and = symbols to justify if the statements are true or false.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how the > and < symbols can be used to make comparison statements about 2 two-digit numbers.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Mystery Number, Stage 1*, in which they take turns asking each other questions to guess a two-digit number.


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *The Collectors*
- **Lesson Resources:** Activity 1 PDF (for display), Activity 2 PDF (for display)
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** *Words to Compare* chart (from prior lessons)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up True or False?

**Purpose:** Students analyze equations involving adding 10 to or subtracting 10 from two-digit numbers, without evaluating all expressions, to determine the relationship between values on either side of the equal sign.

Presentation Screen X


A

$35 + 10 = 35 - 10$

False

B

$35 + 10 = 10 + 35$

True

C

$35 - 10 = 25 - 10$

False

D

$35 + 10 = 10 + 45$

False

**Why these problems?** These equations lend themselves to reasoning about mentally adding and subtracting 10 and using comparison language.

## Launch

**Use the True or False? routine.**

X-X **Display** 1 equation at a time.

**Say,** "Give me a signal when you know whether the statement is true and can explain how you know."

## Connect

X-X **Record** 2 or 3 students' responses, asking for their reasoning and allowing others to agree or disagree. Keep each equation displayed as you progress to the next.

**Repeat** with each equation.

**Ask,** "Look at Equation D. How can thinking about comparing help you know if Equation D is true?"

**Students might say . . .**

A: False. If you add 10 to 35, the value will be greater than 35, and if you subtract 10 from 35, the value will be less than 35.

B: True. Both sides of the equation have the same value because they show adding the same 2 numbers.

C: False. 35 - 10 will have a greater value because even though both sides of the equation show subtracting 10, 1 side starts with a greater number.

D: False. 1 side of the equation shows adding 10 to 35. 35 is less than 45. So, the value of 35 + 10 is less than the value of 10 + 45.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Small Groups | 20 min

# Activity 1 Symbol Tour

**Purpose:** Students explore and discuss comparison statements that include the greater than and less than symbols to consider what these symbols mean.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Display** and read aloud page 9 of the Unit Story, *The Collectors* and the Activity 1 PDF.

**Say:**

- "A piece of paper was taped to the pack of cards from Prashant, on which he had written numbers and symbols. Steph wondered what the symbols meant."
- "Each poster shows a statement that Prashant wrote with numbers and symbols. As you visit each poster, discuss what you think the symbols mean and why."

**Provide** access to connecting cube towers of 10 and single cubes.

**[L] MLR8: Discussion Supports — Sentence Frames**

Display these sentence frames for students to use during the Symbol Tour.

**[EL] Multilingual/English Learners:** Encourage students to use wait time to give their group members time to formulate and rehearse a response before sharing.

**Read aloud** the directions and Problems 1 and 2 after students have finished the tour.

### Materials

- Display and read aloud page 9 of the Unit Story, *The Collectors*.

**Lesson Resources:**

- Display the posters from the Activity 1 PDF in order by letter in various places around the classroom with enough space for students to gather.

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Classroom materials:**

- Display and add to the *Words to Compare* chart (from prior lessons) during the Connect.

**Short on time?** Consider modifying the activity so that groups visit 3 posters rather than 6.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about the numbers and the symbol?"
- Ask, "What do you know about these numbers that might help you figure out what the symbol means?"

## Connect

Connect Storyboard Art FPO

X–X **Display** the comparison statements from Problems 1 and 2.

**Invite students to share** their responses to Problems 1 and 2. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Say:**

- (Pointing to the > symbol in 66 > 20), "This is the greater than symbol. This statement says '66 is greater than 20.'"
- (Pointing to < symbol in 20 < 66), "This is the less than symbol. This statement says '20 is less than 60.'"

**Display** the *Words to Compare* chart. Record the > symbol next to *greater than* and the < symbol next to *less than*.

**[A] Accessibility: Conceptual processing** Clarify vocabulary and symbols by providing examples and non-examples of the *greater than* and *less than* symbols.

**Key Takeaway:** Say, "Greater than and less than symbols are read from left to right, just like words. The greater than symbol is the symbol that starts with the wide part. The less than symbol is the symbol that starts with the point."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . (Poster A: 54 > 25, 25 < 54) | Provide support . . . |
|---|---|---|
| **Almost there** Explain that the symbols have the same meaning. | The symbols look the same, so they must mean the same thing. | **Support:** Ask, "What do you notice is the same about the symbols? What do you notice is different about the symbols?" |
| Explain 1 meaning for the symbols. | These symbols are showing which number is greater than the other number. | **Strengthen:** Ask, "What do you notice is different about the symbols? Why do you think the symbol is different in each statement?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

| | | |
|---|---|---|
| Explain the meaning of each symbol. | The symbol in the top statement means "greater than." The symbol in the bottom statement means "less than." | **Stretch:** Ask, "How might you be able to tell the symbols apart if you saw them without numbers on either side?" |

Pairs | 10 min

# Activity 2 Is It True?

**Purpose:** Students read comparison statements and reason about if they are true or false to practice interpreting the greater than and less than symbols.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Read aloud** the directions. Have students work for 2–3 minutes before working on Problem 7.

**Provide** access to connecting cube towers of 10 and single cubes.

### Materials

**Lesson Resources:**
- Display the Activity 2 PDF during the Connect.

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Refer to the *Words to Compare* chart (from prior lessons) during the Monitor.

## Monitor

Monitor Storyboard Art FPO

***NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 7**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you know about the numbers in this statement?"
- Ask, "How can you use the *Words to Compare* chart to help you decide if this statement is true?"

## Connect

Connect Storyboard Art FPO

X–X **Display** the Activity 2 PDF.

**Read aloud** the explanation only.

**Use the Think-Pair-Share routine.** Ask, "Do you agree or disagree and why?"

**[L] MLR8: Discussion Supports — Pressing for Details**

As students share if they agree or disagree, press for details in their reasoning. For example:
- If a student says, "I disagree because the wrong symbol was used." . . .
- Press for details by asking, "What do you mean when you say the wrong symbol was used?"

**Ask**, "How could you change the comparison statement so that it is true?"

**Record** $59 < 62$ and $62 > 59$.

**Say**, "These statements are true because 59 is less than 62 and 62 is greater than 59."

**Key Takeaway:** Say, "Comparison statements that use the greater than, less than, or equal sign are true when they represent a true relationship between the numbers."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Interpret the symbol and describe a different relationship between the numbers. | This statement is true because it says 72 is less than 71. | **Support:** Ask, "How could the *Words to Compare* chart help you prove which value is greater or less than the other value?" |
| **Almost there** Interpret the symbol differently but describe the relationship between the numbers correctly. | This statement is true because it says 72 is greater than 71. | **Support:** Ask, "How could you use the *Words to Compare* chart to prove that the statement you read aloud is the same statement written with the numbers and symbols?" |
| Interpret the symbol and describe the relationship between the numbers correctly. | The statement is false because it says 72 is less than 71. | **Stretch:** Ask, "What could you change to make this a true statement?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Greater than and less than symbols are distinct symbols with different meanings. These symbols can be used to make comparison statements about 2 numbers.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

18 < ___ 18 > ___

X–X **Ask,** "What number could make each statement true? How do you know?"

**Record** 2–3 numbers students share to make each statement true.

**Say,** "You found different numbers that could make each comparison statement true. You will continue to explore and record comparison statements in the next lesson."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Read and interpret comparison statements about two-digit numbers that include the > and < symbols.
2. **Language Goal:** Justify if comparison statements that include the > and < symbols are true or false. **(Reading, Speaking, and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.NBT.3* |
| | 4–7 | 1 | NY-1.NBT.3 |
| **Spiral Review** | | | |
| | 8, 9 | 2 | NY-1.MD.4 |
| | 10 | 1 | NY-1.OA.7 |

*These problems build toward the standard shown.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Introducing the Center
## Mystery Number, Stage 1

**Purpose:** Students continue to develop their understanding of place value as they ask questions to guess a two-digit mystery number.

**Presentation Screens X–X**


### Materials
**Manipulative Kit:**
- Distribute two-color counters to each pair.

**Centers Resources:**
- Display the Directions, Gameboard A, and Reference Sheet during the Launch.
- Distribute Gameboards (A and B) and one Reference Sheet to each pair.

## Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, Gameboard A, and Reference Sheet.

**Demonstrate** how to play *Mystery Number, Stage 1*. While demonstrating:

- **Say,** "You will play *Mystery Number* today."
- **Say,** "First, you and your partner will choose a Gameboard to use." Display Gameboard A.
- **Say,** "To start, I will choose a mystery number, but I will keep it a secret from my partner. Then my partner will ask me questions that I can answer with *yes* or *no* to try to guess my mystery number."
- **Use the Think-Pair-Share routine**. Ask, "I have picked a mystery number. What questions could you ask to help figure out the mystery number? You can use the Reference Sheet with example questions if it is helpful." Read aloud some of the questions.
- **Say,** "You could ask if the mystery number is greater than 25. The answer is no, so my partner would cover up all the numbers that are greater than 25." Cover the numbers greater than 25 with two-color counters.
- **Ask**, "Look at the numbers that are uncovered. What question would be helpful to ask next?"
- **Say**, "Now you will play *Mystery Number* with a partner. After you guess your partner's mystery number, you will switch roles."

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** the questions students are asking and if their questions vary given the values that remain on the Gameboard.

## Connect

Connect Storyboard Art FPO

X–X **Display** Gameboard A with all the numbers covered except 50, 83, 88, and 98.

**Ask,** "If the only numbers left on the Gameboard were 50, 83, 88, and 98, what question would you ask?"

**Key Takeaway:** Say, "One way to figure out a mystery two-digit number is to ask questions about how many tens and ones. You could ask if the number is greater or less than another number."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**


**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Ask questions specific to only 1 number. | Is the number 53?<br>Is the number 93? | **Support:** Ask, "What questions could you ask that might help you cover more than 1 number at a time?" |
| Repeat the same type of question. | Does the number have 0 ones?<br>Does the number have 3 ones? | **Strengthen:** Ask, "What do you notice about the numbers that are left that might help you think of your next question?" |
| Vary questions given which numbers remain on the board. | Does the number have 0 ones?<br>Is the number less than 30? | **Stretch:** Ask, "How do you decide which questions to ask?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 16

**Lesson Goal:** Justify if comparison statements that include the > and < symbols are true or false.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Interpret the symbol differently and describe the relationship between the numbers differently.

**Respond:**

- **Mini-Lesson** | 15 min
  *Exploring Comparison Symbols*
- **Lesson 16 Refresh Video**

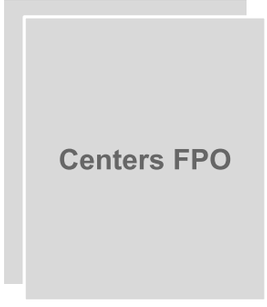

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Interpret the symbol differently or describe the relationship between the numbers differently.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 7
  *Last Number Wins*, Stage 2
  *Mystery Number*, Stage 1
- **Lesson 16 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Interpret the symbol and describe the relationship between the numbers correctly.

**Respond:**

- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

What did you notice today as you listened to students read comparison statements? What other opportunities might you have throughout the school year to display comparison statements for students to read and evaluate?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 18**

# Steph's Friends

## Writing 2 Different Comparison Statements About the Same Numbers

Let's write comparison statements.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Compare 2 two-digit numbers and record 2 true comparison statements about the same numbers using the > and < symbols.
2. **Language Goal:** Justify if comparison statements about two-digit numbers are true or false. **(Reading, Speaking, and Listening)**

Students continue to explore strategies for comparing two-digit numbers. They write 2 comparison statements about the same numbers — 1 statement using the greater than symbol and 1 statement using the less than symbol. Students recognize that comparison statements can describe which number is greater or which number is less. Students attend to precision by reading comparison statements from left to right to determine whether the statement represents a true relationship between the numbers. **(MP3, MP6, MP7, MP8)**

### Prior Learning

In Lesson 17, students used two-digit numbers and symbols to make true comparison statements and noticed that more than 1 comparison statement can be made about the same 2 numbers.

### Future Learning

In Lesson 19, students will use place value understanding to compare and order one- and two-digit numbers.

## Rigor and Balance

- Students deepen their **conceptual understanding** of strategies for comparing two-digit numbers and recording the comparisons with symbols.
- Students **apply** place value reasoning to compare two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *greater than*
- *less than*

## Standards

**Addressing**

**NY-1.NBT.3**

**Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.**

*Also Addressing*: NY-1.NBT.1, NY-1.NBT.4,

**Mathematical Practices:** MP3, MP6, MP7, MP8

**Building On**

**NY-1.NBT.2**

**I am a doer of math.**
Why is it important for mathematicians to be clear when sharing their ideas?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.3, NY-1.NBT.1, NY-1.NBT.4,

## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students write 2 true comparison statements for pairs of two-digit numbers using the > and < symbols. They compare the 2 statements they wrote to recognize that the relationship between 2 numbers can be represented differently depending on the symbol used.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students use a spinner to generate 2 numbers and then write 2 comparison statements about the numbers using the > and < symbols. They then read and evaluate other students' comparison statements to determine whether they are true or false and justify their thinking.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how to ensure that a comparison statement describes a true relationship between 2 numbers.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice counting by 1 and 10 from any number and writing two-digit numbers.

- Last Number Wins, Stage 1
- Last Number Wins, Stage 2
- Mystery Number, Stage 1

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials.
Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** *Two-Digit Numbers Spinner* PDF (from Lesson 14)
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** paper clips

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students add tens to a two-digit number to make connections between adding a single ten and adding a multiple of 10.

Presentation Screen X


A

32 + 10

42

B

32 + 10 + 10

52

C

32 + 20

52

D

32 + 40

72

**Why these problems?** These expressions lend themselves to making use of the base-ten structure of numbers to add 1 or more tens.

## Launch

**Use the Number Talk routine.**

X-X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X-X **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions C and D.

**Ask,** "How could you use 32 + 20 to help you solve 32 + 40?"

**Students might say . . .**

A: 32 + 10 is 42 because if I count 1 more ten from 32 it is 42.

B: I know 32 + 10 is 42. When I add 1 more ten, the sum is 52.

C: 32 plus 2 tens is 52.

D: I know 32 + 40 is 2 tens greater than 32 + 20, so I added 2 more tens to 52. 52 + 20 = 72

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Comparing Collections

**Purpose:** Students compare pairs of two-digit numbers and use the > and < symbols to write 2 true comparison statements about each pair of numbers.

**Presentation**
**Screens X–X**


**Materials**
**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

## Launch

Launch Storyboard Art FPO

**X–X** **Say,** "As Steph's friends learned more about Curioso cards, their interest grew, and soon they began collecting Curioso cards too! Eager to share their growing collections with each other, they planned a get-together and decided to compare the number of cards in their collections."

**Read aloud** the directions and Problems 1–4.

**Provide** access to connecting cube towers of 10 and single cubes.

**[A] Accessibility: Executive functioning** Vary the task demands by having students choose 2 of the 3 problems to compare before completing Problem 4. Have them complete the additional problem when they have more processing time.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "How many Curioso cards does Tim have? How many does Lee have?"
- Ask, "How could you figure out who has a greater number of cards?"

## Connect

Connect Storyboard Art FPO

**X–X** **Record** 58 < 62.

**Use the Think-Pair-Share routine.** Ask, "How would you write a second comparison statement to compare these same numbers?"

**[L] MLR8: Discussion Supports — Pressing for Details**
As students share how they would determine how to write a second comparison statement, press for details in their reasoning. For example:

- If a student says, "Switch the order of the numbers." . . .
- Press for details by asking, "How will switching the order of the numbers help you write another comparison statement? What else is important to consider when writing a second comparison statement?"
- **[EL] Multilingual/English Learners:** Use wait time to give students time to formulate and rehearse a response with a partner before sharing with the class.

**Record** students' comparison statements and allow students to reach an agreement about which is correct.

**Ask,** "What is the same about 58 < 62 and 62 > 58? What is different?"

**Key Takeaway:** Say, "You can write 2 comparison statements about the same numbers by writing 1 statement to describe which number is greater and 1 statement to describe which number is less."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Write 2 statements using the same symbol and reverse the order of the numbers. | $54 > 32$ and $32 > 54$ | **Support:** Ask, "Which number is greater? Which one of your statements shows that?" |
| **Almost there** Write 2 statements using the numbers in the same order and reverse the symbol. | $54 > 32$ and $54 < 32$ | |
| Write 2 comparison statements that represent the relationship between the numbers using different symbols. | $54 > 32$ and $32 < 54$ | **Strengthen:** Ask, "How do you know that your statements are true?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Spin and Compare

**Purpose:** Students write 2 true comparison statements for pairs of numbers and then evaluate the statements written by another pair to determine if they are true or false.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "Each partner will spin a number. If you spin the same number, spin again so you have different numbers."

**Read aloud** Problems 5 and 6.

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Memory and attention** Check for understanding by inviting students to turn and talk to a partner about the directions. Have students restate the directions in their own words before beginning. Check that students understand they will spin a spinner, record their numbers, make comparison statements about their numbers, and finally trade their statements with a different pair to review.

### Materials

**Lesson Resources:**
- Distribute the *Two-Digit Numbers Spinner* PDF (from Lesson 14) to each pair.

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Distribute one paper clip to each pair.

**Short on time?** Consider having students write 2 sets of comparison statements instead of 3.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 6**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What is the meaning of the > symbol? What is the meaning of the < symbol?"
- Ask, "When writing a greater than statement, which number will you record first — the number that is greater or the number that is less?"

**[L] MLR8: Discussion Supports — Active Listening**

- Invite students to begin partner interactions by restating their partner's description, in their own words, before adding their own ideas to the discussion.
- [EL] **Multilingual/English Learners:** If possible, pair students with different levels of English language proficiency together as they begin partner interactions. This will provide a structured opportunity for multilingual learners to interact with and receive feedback from their peers with varied language backgrounds.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** 65 > 41 and 65 < 41.

**Use the Think-Pair-Share routine.** Ask, "Are these statements true? How do you know?"

**Say** (if not yet mentioned during discussion):

- "65 > 41 is a true statement because it says '65 is greater than 41.' This is true because 6 tens is greater than 4 tens."
- "65 < 41 is not a true statement because it says '65 is less than 41.' This is not true because 65 is the greater number."

**Key Takeaway:** Say, "To decide whether a comparison statement is true, you can notice which symbol is used and read the statement from left to right to see if it describes the relationship between the numbers."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Determine if the statements are true by noticing if both comparison symbols are used. | $65 > 41$ and $41 < 65$<br>or<br>$41 < 65$ and $41 > 65$<br>Both statements are true because one uses the greater than symbol and the other uses the less than symbol | **Support:** Point to each of the statements and ask, "Read this statement. Is it true or false? How do you know?" |
| **Almost there** Determine if the statements are true by noticing if the same numbers are used in both statements but in different orders. | $41 < 65$ and $41 > 65$<br>Both cannot be true because the numbers are in the same order both times. | **Support:** Ask, "How could you keep the numbers in the same order and write 2 true statements?" |
| Determine if the statements are true by noticing if both statements describe the relationship between the numbers. | $65 > 41$ and $41 < 65$<br>The first statement is true because 65 is greater than 41. The second statement is true because 41 is less than 65. | **Stretch:** Ask, "Is there another true statement you could write to compare the numbers? How do you know?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** 2 different comparison statements can represent the relationship between 2 numbers. It is important to attend to the symbols used and to read the statements to be sure both statements describe a true relationship between the numbers.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)

| Steph | Kat |
|---|---|
| ___ > ___ | 42 ___ 37 |

X–X **Say,** "To write true comparison statements about 2 numbers, Steph likes to write the comparison symbol first and then figure out where the numbers go. Steph's friend Kat likes to write the numbers first and then figure out which symbol makes the statement true."

**Use the Think-Pair-Share routine.** Ask, "Which strategy do you prefer? Why?"

**Say,** "There are different ways to write statements to compare 2 numbers. It is important to make sure the symbol shows a true relationship between the numbers."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Compare 2 two-digit numbers and record 2 true comparison statements about the same numbers using the > and < symbols.
2. **Language Goal:** Justify if comparison statements about two-digit numbers are true or false. **(Reading, Speaking, and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–8 | 1 | NY-1.NBT.3 |
| **Spiral Review** | | | |
| | 9, 10 | 2 | NY-1.MD.4 |
| | 11 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Last Number Wins


**Stage 1 – Numbers to 99 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 1 and writing two-digit numbers.

**Materials**

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Last Number Wins


**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 10 and writing two-digit numbers.

**Materials**

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Mystery Number

Placeholder for Center Icon

**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2

Students use place value reasoning to guess two-digit numbers.

**Materials**

- two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B), Reference Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 18

**Lesson Goal:** Compare 2 two-digit numbers and write 2 true comparison statements about the same numbers using the > and < symbols.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Write 2 statements using the numbers in the same order and reverse the symbol.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson 18 Refresh Video**

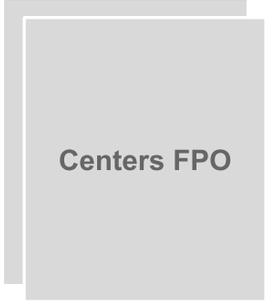

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Write 2 true comparison statements using different symbols.

**Respond:**

- **Centers** | 15 min
  *Last Number Wins*, Stages 1 and 2
  *Mystery Number*, Stage 1
- **Lesson 18 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

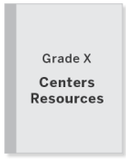
**If Students:** Write 2 true comparison statements using different symbols and explain how they know they are both true.

**Respond:**

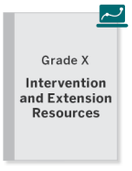
- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)



Centers



Mini-Lessons
Extensions

Lesson Practice

Item Bank


Lesson Refresh Video

## Professional Learning

When do your students feel successful in math? How do you know?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 19**

# A Trip to the Flea Market

## Comparing and Ordering One- and Two-Digit Numbers

Let's put numbers in order.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Compare two-digit numbers and record the comparisons using the > and < symbols.
2. **Goal:** Order one- and two-digit numbers from least to greatest and greatest to least.
3. **Language Goal:** Justify the placement of a one- or two-digit number in an ordered list. **(Speaking and Listening)**

Students use place value understanding to compare and order one- and two-digit numbers from least to greatest and greatest to least. They notice that a number can be greater than 1 number while being less than another number. They consider comparison statements that describe the relationships between numbers within an ordered list.

**Note:** While ordering one- and two-digit numbers extends beyond Grade 1 standards, this lesson provides an opportunity for students to continue applying place value reasoning to compare numbers. **(MP6, MP7)**

### Prior Learning

In Lesson 18, students wrote and evaluated comparison statements about 2 two-digit numbers.

### Future Learning

In Sub-Unit 4, students will represent and interpret two-digit numbers with different amounts of tens and ones. In Grade 2, students will use place value understanding to compare 2 three-digit numbers using the >, <, and = symbols.

## Rigor and Balance

- Students extend their **conceptual understanding** of comparing one- and two-digit numbers to place numbers in an order based on their value.
- Students **apply** their understanding of the meanings of the digits to compare and order two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *greater than*
- *less than*

## Standards

**Addressing**

**NY-1.NBT.3**

**Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.**

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP3, MP6, MP7

| Building On | Building Toward |
|---|---|
| NY-1.NBT.2 | NY-2.NBT.4 |

**I can be all of me in math class.**
Steph's friends share an interest. What is an interest you share with a fellow mathematician?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standard: NY-1.NBT.3, NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Which One Doesn't Belong?** routine to interpret the > and < symbols and to use place value and comparison language. They should be encouraged to use precise language as they give their reasons for the one they chose. **(MP3, MP6)**


Screens X–X

## Activity 1 Pairs | 15 min

Students write comparison statements about 2 numbers and then place a new number in a sequence that includes the 2 numbers they compared. They recognize that a number can be less than 1 number and greater than another number.


Screens X–X

## Activity 2 Pairs| 15 min

Students order sets of cards containing 4 one- and two-digit numbers from least to greatest and greatest to least to apply their knowledge of comparing and explore strategies for ordering numbers.

**Additional Prep** Cut out: Activity 2 PDF


Screens X–X

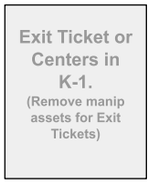
## Synthesis Whole Class | 5 min

Students review and reflect on ordering numbers and the importance of attending to whether a list of numbers is in order from least to greatest or greatest to least.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Greatest of Them All, Stage 1*, in which they use place value understanding to create a number that is greater than their partner's number.


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 2 PDF
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** *Words to Compare* chart (from prior lessons), *Words to Describe Numbers* chart (from prior lessons)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Which One Doesn't Belong?

**Purpose:** Students analyze comparison statements involving one- and two-digit numbers to develop their precision with comparison language.

Presentation Screen X


## Which One Doesn't Belong?

A. $5 < 30$

B. $25 < 35$

C. $65 < 56$

D. $90 > 60$

### Launch

X–X **Display** the 4 comparison statements.

**Use the Which One Doesn't Belong? routine.**

**Say,** "Choose one that doesn't belong. Be ready to share your reasoning."

### Connect

X–X **Record** students' responses as they share.

**Ask,** "How do you know Comparison C is false? What could you change to make it a true comparison statement?"

**Students might say . . .**

A: It is the only statement with a one-digit number.

B: It is the only statement where both numbers have a 5 in the ones place.

C: It is the only statement that is false.

D: It is the only statement with a greater than symbol.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 Where Does It Belong?

**Purpose:** Students apply their understanding of comparing to write 2 true comparison statements about a pair of numbers and then place a new number in an ordered list that includes the 2 numbers they compared.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say:**

- "You have compared 2 numbers. Today, you will think about how to compare more than 2 numbers."
- "When you are comparing more than 2 numbers, the word *least* describes the number that is less than all the other numbers, and the word *greatest* describes the number that is greater than all the other numbers." Record *greatest* and *least* on the *Words to Compare* chart.

**Read aloud** Problems 1–3.

**Provide** access to connecting cube towers of 10 and single cubes.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Classroom materials:**

- Display the *Words to Compare* chart (from prior lessons) and *Words to Describe Numbers* chart (from prior lessons).

## Monitor

Monitor
Storyboard Art
FPO

****NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you know about the numbers 27 and 93?"
- Ask, "When writing a 'greater than' statement, will you record the number that is greater or the number that is less first?"

**[EL] Multilingual/English Learners:** Encourage students to refer to and use the *Words to Compare* chart and the *Words to Describe Numbers* chart from previous lessons to review examples of *greater than* and *less than* statements.

## Connect

Connect
Storyboard Art
FPO

X–X **Invite pairs to share** their responses to Problem 3. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**[L] MLR8: Discussion Supports — Active Listening**

Encourage students to discuss how pairs determined the placement of 58 by restating another pair's idea in their own words, before adding their own ideas to the discussion.

**Say** (if not yet mentioned during discussion), "58 is placed between 27 and 93 because 58 is greater than 27, and 58 is less than 93."

**Key Takeaway:** Say, "To figure out where a number belongs in a list that is ordered from least to greatest or greatest to least, it is important to think about which numbers it is greater than and which numbers it is less than."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Compare 58 to one of the listed numbers. | 8, 58, 27, _____, 93, _____<br>58 is greater than 8. | **Support:** Ask, "Your work shows 58 is greater than 8. What does it show about the relationship between 58 and 27?" |
| Use counting or knowledge of the count sequence to determine where 58 belongs in the sequence. | 8, _____, 27, 58, 93, _____<br>27, 28, 29 ...58<br>58 comes after 27 when counting. | **Strengthen:** Ask, "How could you figure out where 58 belongs without counting?" |
| Use place value reasoning to compare 58 to the other listed numbers. | 8, _____, 27, 58, 93, _____<br>58 is greater than 27 and less than 93 because 5 tens is greater than 2 tens and less than 9 tens. | **Stretch:** Ask, "What comparison statements could help explain why you placed 58 where you did?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Card Sort: Collections in Order

**Purpose:** Students apply their knowledge of comparing to order sets of one- and two-digit numbers from least to greatest and greatest to least.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X Say:

- "Steph's mom took her and her friends on a trip to the flea market. As they walked around, Steph pointed out stalls where groups of collectors were gathered. Steph explained that collectors gather to share new additions to their collections and sometimes compare how many they have in their collections."
- "You will look at some of the collections that Steph and her friends noticed at the market."

**Display** the set of cards labeled "Expired coupon collection."

**Say,** "You and your partner will receive sets of cards labeled with the collection types. This set is labeled 'Expired coupon collection.' Each of these cards represents the number of coupons a coupon collector has."

**Read aloud** the directions for Problems 4–7.

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Executive functioning** Vary the task demands by having students focus on completing Problems 4 and 6 and only complete Problems 5 and 7 when they have more processing time.

### Materials

**Lesson Resources:**
- Distribute one set of pre-cut cards from the Activity 2 PDF to each pair.

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Short on time?** Consider allowing students to choose 3 of the 4 sets of cards to order.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what do you need to do?"
- Ask, "How could you use what you know about comparing 2 numbers to help order more than 2 numbers?"

## Connect

Connect Storyboard Art FPO

X–X [L] This Connect is structured using the *MLR7: Compare and Connect* routine.

**Invite students to share** their responses to Problem 4. Select and sequence their responses in the order shown in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:
- "How are these strategies alike?"
- "How are these strategies different?"
- "What questions do you have about ordering numbers?"
- "Which strategy makes the most sense to you to use when ordering numbers?"

**Key Takeaway:** Say, "There is more than 1 strategy for comparing and ordering one- and two-digit numbers."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Order the numbers by counting on or using knowledge of the count sequence. | I counted on from 5 and stopped when I got to one of the numbers. I wrote that number on the line and then kept counting to find the next number. | **Strengthen:** Ask, "How could you use what you know about tens and ones to prove that these numbers are in order from least to greatest?" |
| Order the numbers by comparing 2 numbers at a time. | First, I compared 32 and 5 and recorded 5 then 32. Then I compared 32 and 23 and realized 23 needs to go before 32 because it is less. | **Strengthen:** Ask, "How could you use what you know about the digits in the tens and ones places to compare more than 2 numbers at a time?" |
| Order the numbers by comparing more than 2 numbers at a time. | I compared the tens place in each number and put them in order from fewest tens to most tens. When the number of tens was the same, I compared the ones. | **Stretch:** Say, "Combine this set with another set and choose how to order the larger set of cards." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Three or more numbers can be placed in order from greatest to least or least to greatest using different strategies. In an ordered list, a number can be described in terms of other numbers that are less or greater than the given number.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)


**X–X** **Say,** "These cards are from Prashant's Curioso collection. He sorted them by character, just like Steph did, and put the stacks in order from greatest to least. He put a sticky note on each stack so he would remember how many there were, but 2 sticky notes fell off!" Label a sticky note with 65.

**Ask,** "Prashant thinks 65 belongs on the second set of cards because 65 comes before 67. Do you agree or disagree with Prashant? Why?"

**Say,** "You can use what you know about comparing to put numbers in order. It is important to pay attention to if a set of numbers is ordered from least to greatest or greatest to least to figure out where numbers belong."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Compare two-digit numbers and record the comparisons using the > and < symbols.
2. **Goal:** Order one- and two-digit numbers from least to greatest and greatest to least.
3. **Language Goal:** Justify the placement of a one- or two-digit number in an ordered list. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.3 |
| **Spiral Review** | | | |
| | 5, 6 | 2 | NY-1.MD.4 |
| | 7 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Introducing the Center

## Greatest of Them All, Stage 1

**Purpose:** Students create the greatest two-digit number possible to apply place value understanding when comparing numbers.

**Presentation Screens X–X**


### Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Recording Sheet.

**Demonstrate** how to play the Center, *Greatest of Them All, Stage 1* with a student as a partner. While demonstrating:

- **Say,** "You will play *Greatest of Them All* today."
- **Say,** "First, my partner and I will each flip over a number card and record it in one of our blank boxes. The goal is to make a greater number than my partner's number."
- **Use the Think-Pair-Share routine.** Ask, "What place should we each record our digit in — the tens place or the ones place? Why?" Record the digit and have the student partner do the same.
- **Say,** "Then we will each flip over a second card and record it in our remaining box."
- **Ask**, "Next, my partner and I will discuss which symbol makes a true comparison statement. What symbol should we record here?" Record the symbol.
- **Say**, "The player with the greater number earns 1 point, and the player with more points after 6 rounds wins."

### Materials

**Manipulative Kit:**

- Distribute number cards (0–9) to each pair of students.

**Centers Resources:**

- Distribute the Directions and Recording Sheet to each pair during the Launch.

### Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students are applying place value understanding when creating their two-digit numbers and explaining which comparison symbol makes each statement true.

### Connect

Connect Storyboard Art FPO

X–X **Display** a Recording Sheet with the number 6 recorded in the tens place for Player A and Number card 5.

**Ask**, "Imagine you are Player B. Where would you record the digit 5? Why?"

**Invite students to share** their reasoning for why they would record the digit in the ones place or the tens place.

**Key Takeaway:** Say, "When trying to create the greater two-digit number, it is important to consider if you want a digit to represent the number of tens or the number of ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**


**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Record the digits in the order in which they are flipped over. | I flipped over a 3 first and then a 7, so my number is 37.<br>I flipped over an 8 first and then a 2, so my number is 82. | **Support:** Ask, "How could you use what you know about the meanings of digits in the tens place and ones place to decide where to place your first card?" |
| Use place value reasoning to determine the placement of the digits. | I flipped over a 3 first and put it in the ones place because it is a small number. Then I flipped over a 7 and put it in the tens place.<br>I flipped over an 8 first and put it in the tens place because it is a big number. Then I flipped over a 2 and put it in the ones place. | **Stretch:** Ask, "If you continue using this strategy, are there any numbers that would be tricky to decide where to place? Why or why not?" |
| Use place value reasoning and their partner's choice of digit placement to determine the placement of the digits. | I flipped over a 7, and my partner flipped over an 8. My partner put the 8 in the tens place, so I put the 7 in the ones place because I know any number with 7 tens is less than a number with 8 tens. | **Stretch:** Ask, "Will this strategy work every time? Why or why not?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 19

**Lesson Goal:** Order one- and two-digit numbers from least to greatest and greatest to least.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Order the numbers in a different order.

**Respond:**

- **Mini-Lesson** | 15 min
  *Comparing and Ordering One-Digit and Two-Digit Numbers*
- **Lesson 19 Refresh Video**

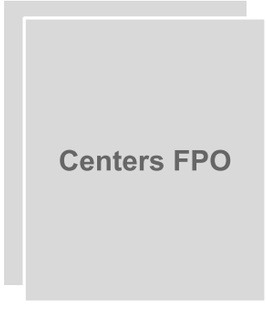

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Order the numbers by counting on or using knowledge of the count sequence.

**Respond:**

- **Centers** | 15 min
  *Last Number Wins*, Stages 1 and 2
  *Mystery Number*, Stage 1
- **Lesson 19 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

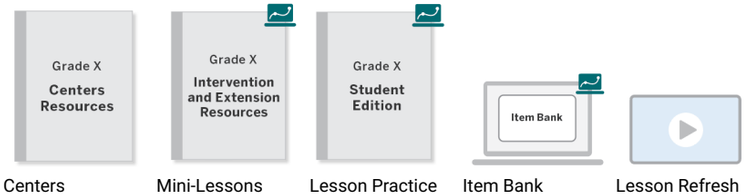
**If Students:** Order the numbers by using place value reasoning to compare them.

**Respond:**

- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

If you were to teach this lesson again, which activity would you do differently? How would this change support students' learning?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 20**

# Kat's Football Cards

## Representing Two-Digit Numbers With Different Amounts of Tens and Ones

Let's represent the same number with different numbers of tens and ones.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Create equivalent representations of a two-digit number using different amounts of tens and ones.
2. **Language Goal:** Justify whether 2 representations of a two-digit number with different amounts of tens and ones have the same value. **(Speaking, Listening, and Writing)**

Students create equivalent representations of the same two-digit number using different amounts of tens and ones in each representation. This provides students with a foundation for composing and decomposing when adding within 100. Students are encouraged to represent numbers using towers of 10 cubes and single cubes, base-ten drawings, words, and expressions. They notice patterns in the amounts of tens and ones as tens are decomposed into groups of 10 ones. **(MP7, MP8)**

### Prior Learning

In Sub-Unit 2, students represented two-digit numbers in a variety of ways, including base-ten drawings, words, expressions, and standard form.

### Future Learning

In Lesson 21, students will interpret representations of the same two-digit numbers that have different amounts of tens and ones.

## Rigor and Balance

- Students deepen their **conceptual understanding** of place value by exploring representations of two-digit numbers that show the amounts of tens and ones in different but equivalent ways.
- Students **apply** their understanding of the meanings of the digits to represent the same two-digit number with amounts of tens and ones in more than 1 way.

## Vocabulary

**Review Vocabulary**

- *digit*
- *greater than*
- *less than*

## Standards

**Addressing**

**NY-1.NBT.2**

**Understand that the two digits of a two-digit number represent amounts of tens and ones.**

**Mathematical Practices:** MP3, MP6, MP7, MP8

**Building Toward**

**NY-1.NBT.4**

**I can be all of me in math class.**
Why might mathematicians show their ideas in more than 1 way?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standard: NY-1.NBT.2

## Warm-Up Whole Class | 10 min

Students use the **Which One Doesn't Belong?** routine to compare different base-ten representations of two-digit numbers. They should be encouraged to use precise language as they give their reasons for the one they chose. **(MP3, MP6)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 10 min

Students are challenged to represent the number 63 using 5 towers of 10 cubes and single cubes, without making or breaking apart a tower. As they explore different ways to represent 63, they analyze equivalent representations that show different amounts of tens and ones.

**Additional Prep** Assemble: towers of 10 cubes and single cubes (5 towers for each pair)

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 20 min

Students represent the same two-digit number in as many ways as they can using different amounts of tens and ones in each representation. They notice and discuss patterns in the amounts of tens and ones as tens are decomposed.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on the different ways that a two-digit number can be represented with different amounts of tens and ones.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice comparing two-digit numbers, counting by 10 from any number, and writing two-digit numbers.

- Greatest of Them All, Stage 1
- Last Number Wins, Stage 2
- Mystery Number, Stage 1


Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 2 PDF (for display)
- **Manipulative Kit:** connecting cubes

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Which One Doesn't Belong?

**Purpose:** Students analyze and compare different base-ten representations of two-digit numbers to develop their precision with language for describing and comparing numbers.

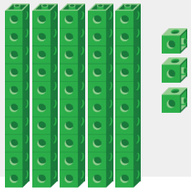
Presentation Screen X


## Which One Doesn't Belong?

A. 5 tens 3 ones

B. 30 + 5

C. 3 + 50

D. 

### Launch

X-X **Display** the 4 representations.

**Use the Which One Doesn't Belong? routine.**

**Say,** "Choose one that doesn't belong. Be ready to share your reasoning."

### Connect

X-X **Record** students' responses as they share.

**Ask** (if not yet mentioned during discussion), "Do all 4 representations show the same number? How do you know?"

**Students might say . . .**

A: It is the only representation with words.

B: It is the only representation that doesn't show 53.

C: It is the only representation that shows the ones and then the tens.

D: It is the only representation that is built with cubes.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 10 min

# Activity 1 Representing Football Cards

**Purpose:** Students represent a two-digit number using single cubes and a limited amount of towers of 10 cubes to explore representing a two-digit number using different amounts of tens and ones.

**Presentation Screens X–X**


**Materials**

**Manipulative Kit:**
- Distribute connecting cubes and five towers of 10 cubes to each pair.

## Launch

Launch Storyboard Art FPO

X–X **Say,** "Steph's friend Kat collects football cards in addition to Curioso cards. Kat said that she would represent how many football cards she has and Steph could guess the number. Kat grabbed the towers of 10 cubes and single cubes on the table. She was careful not to take any of the towers apart because she thought they might need them later during math class."

**Say,** "Kat has 5 towers of 10 cubes and as many single cubes as she needs."

**Read aloud** Problems 1–3.

**[A] Accessibility: Executive functioning** Invite partners to make a plan for how they will complete the problems. Have them take turns sharing what they know and asking clarifying questions before representing the number.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what do you need to do?"
- Ask, "What do you know about the number 63 that might help you represent it?"

## Connect

Connect Storyboard Art FPO

X–X **[L]** This activity is structured using the *MLR7: Compare and Connect* routine.

**Display** the number 63.

**Invite pairs to share** their responses to Problems 2 and 3. Select a pair that represented with a drawing, a pair that represented with words, and a pair that wrote the expression 50 + 13.

**Use the Think-Pair-Share routine.** Ask, "63 has 6 tens. How do these representations show 63 without using 6 tens?"

**Say** (if not yet mentioned during discussion), "In each of these representations, one of the tens is represented as 10 ones."

**Key Takeaway:** Say, "The digit in the tens place represents the number of tens a number has. You can represent each ten as a ten or as 10 ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

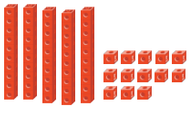
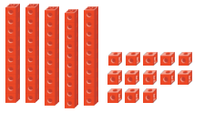
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Represent 63 using the 5 towers of 10 and 3 ones. |  | **Support:** Ask, "You used 5 towers of 10 and 3 single cubes. What number does this represent? How could you change your representation to show 63?" |
| Represent 63 using 5 towers of 10 and 13 ones by counting on from 50 by 1. |  | **Strengthen:** Ask, "You counted by 1 to figure out the number of single cubes you needed to show 63. How could you use what you know about the number of tens in a number to help you figure out the number of single cubes you need?" |
| Represent 63 using 5 towers of 10 and 13 ones by reasoning that one of the tens can be represented with 10 ones. |  63 has 6 tens and 3 ones. Because I can only use 5 towers of 10, I used 10 single cubes to make the sixth ten and 3 more single cubes for the 3 ones. | **Stretch:** Ask, "How could you use this reasoning to represent 63 with 4 towers of 10 cubes?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 20 min

# Activity 2 How Many Ways?

**Purpose:** Students represent the same number using different amounts of tens and ones to notice patterns in how the amounts of tens and ones change as more tens are decomposed.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "You have been exploring how 1 number can be represented using different numbers of tens and ones."

**Read aloud** Problems 4–6.

### Materials

**Lesson Resources:**
- Display the Activity 2 PDF during the Connect.

**Manipulative Kit:**
- Ensure pairs have connecting cubes and cube towers.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 5**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you know about the number 47 that could help you represent it?"
- Ask, "How can thinking about the value of each digit help you represent the number with tens and ones?"

## Connect

Connect
Storyboard Art
FPO

X–X **Display** the Activity 2 PDF.

**Use the Think-Pair-Share routine.** Ask, "Look at the different representations for the number 47. What patterns do you notice?"

**[L] MLR8: Discussion Supports — Active Listening**

- Invite students to begin partner interactions by restating their partner's ideas, in their own words, before adding their own ideas to the discussion.
- **[EL] Multilingual/English Learners:** As students share what they notice, add annotations to the different representations to highlight connections students make. For example, label or color code the 4 tens and 7 ones displayed and use the same labels or color coding to highlight the 3 tens and 17 ones. Invite students to continue making connections as more representations are shared.

**Say** (if not yet mentioned during discussion), "In the first row, there are 4 tens and 7 ones. The next row shows one of the tens broken apart into 10 ones, so there is 1 less ten."

**Key Takeaway:** Say, "Two-digit numbers are made up of tens and ones. Each time a ten is broken apart into 10 ones, there is 1 less ten and 10 more ones."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Create representations that show 2 different numbers. | 4 tens 7 ones<br>40 + 17 | **Support:** Ask, "Where do you see the value of each digit in 47 in each representation?" |
| **Almost there** Create representations that show the same amounts of tens and ones. | 4 tens 7 ones<br>40 + 7 | **Support:** Ask, "You represented 47 in different ways that show 4 tens and 7 ones. How could you change one of your representations to show 47 with a different number of tens and ones?" |
| Create equivalent representations that show different amounts of tens and ones. | 4 tens 7 ones<br>3 tens 17 ones | **Stretch:** Ask, "How could you know when you have found all possible combinations of tens and ones that represent 47?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

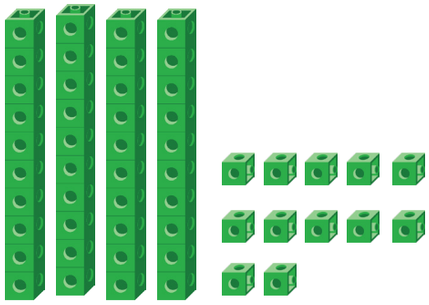
**Lesson Takeaway:** Two-digit numbers can be represented as amounts of tens and ones in more than 1 way by decomposing 1 or more tens into ones.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)



X–X **Use the Think-Pair-Share routine.** Ask:

- "What number is shown in this representation? How do you know?"
- "What is another way to show the same number with a different number of tens and ones?"

**Say,** "Any two-digit number can be represented in more than 1 way with different numbers of tens and ones."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Create equivalent representations of a two-digit number using different amounts of tens and ones.
2. **Language Goal:** Justify whether 2 representations of a two-digit number with different amounts of tens and ones have the same value. **(Speaking, Listening, and Writing)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 1 | NY-1.NBT.2 |
| **Spiral Review** | | | |
| | 2, 3 | 2 | NY-1.MD.4 |
| | 4 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

**Presentation Screen X**


**Short on time?** Consider omitting the Center Choice Time.

**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Greatest of Them All


**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students create the greatest two-digit number possible to apply place value reasoning when comparing numbers.

**Materials**

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Last Number Wins


**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 10 and writing two-digit numbers.

**Materials**

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Mystery Number

Placeholder for Center Icon

**Stage 1– Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2

Students use place value reasoning to guess two-digit numbers.

**Materials**

- two-color counters **(Manipulative Kit)**
- Directions, Reference Sheet, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 20

**Lesson Goal:** Create equivalent representations of a two-digit number using different amounts of tens and ones.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Create representations that show 2 different numbers or create representations that show the same amounts of tens and ones.

**Respond:**

- **Mini-Lesson** | 15 min
  *Creating Equivalent Representations of a Two-Digit Number*
- **Lesson 20 Refresh Video**

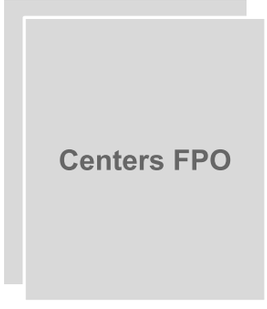

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Create equivalent representations that show different amounts of tens and ones, using drawings or words.

**Respond:**

- **Centers** | 15 min
  *Greatest of Them All*, Stage 1
  *Last Number Wins*, Stage 2
  *Mystery Number*, Stage 1
- **Lesson 20 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

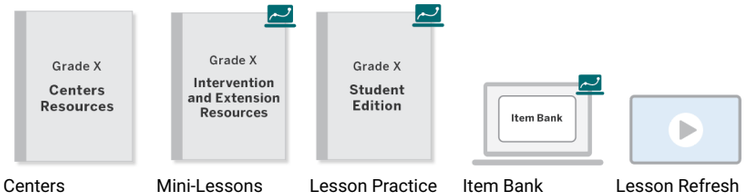
**If Students:** Create equivalent representations that show different amounts of tens and ones, using expressions.

**Respond:**

- **Sub-Unit 4 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

In the next unit, students add within 100, including adding numbers that require composing a new ten when adding by place. How will the work of this sub-unit prepare students for the upcoming work with addition?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 21**

# Collectors Everywhere!

## Interpreting Different Representations of the Same Two-Digit Number

Let's find the numbers represented with different numbers of tens and ones.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Create and interpret equivalent representations of a two-digit number using different amounts of tens and ones.
2. **Goal:** Represent and solve *Put Together/Take Apart, Result Unknown* and *One Addend Unknown* story problems that involve representing two-digit numbers with different amounts of tens and ones.
3. **Language Goal:** Justify whether different representations of the same two-digit number with different amounts of tens and ones have the same value. **(Speaking and Listening)**

Students create 3 representations of the same two-digit number using different amounts of tens and ones and then interpret their classmates' representations to determine the number shown. Students solve *Put Together/Take Apart, Total Unknown* and *One Addend Unknown* problems that require them to think flexibly about the amounts of tens and ones in the total amount. **(MP2, MP7, MP8)**

### Prior Learning

In Lesson 20, students created equivalent representations of a two-digit number by using different amounts of tens and ones.

### Future Learning

In Lesson 22, students will compare and order two-digit numbers represented as amounts of tens and ones in different ways.

## Rigor and Balance

- Students deepen their **conceptual understanding** of place value by exploring how two-digit numbers can be represented with different amounts of tens and ones.
- Students **apply** their understanding of the meanings of the digits to represent the same two-digit number with amounts of tens and ones in more than 1 way as they solve problems with real-world contexts.

## Vocabulary

**Review Vocabulary**

- *estimate*
- *greater than*
- *less than*

## Standards

**Addressing**

**NY-1.NBT.2,**

**Understand that the two digits of a two-digit number represent amounts of tens and ones.**

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP2, MP3, MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-1.OA.1 | NY-1.NBT.4 |

**I can be all of me in math class.**
Steph uses math while collecting. Which of your hobbies can you connect with math?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.2, NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Estimation Exploration** routine, in which they are asked to estimate a quantity. Students construct viable arguments to support their estimates and have an opportunity to revise their estimates when given more information. **(MP3)**


Screens X–X

## Activity 1 Pairs | 15 min

Students represent a two-digit number in 3 ways using different amounts of tens and ones. They trade with another pair to interpret their representations and discuss the need to look for all possible groups of 10 when identifying and representing a two-digit number.

**Additional Prep** Prepare: sticky notes with two-digit numbers (one number for each pair, repeat as needed: 37, 45, 50, 56, 63, 71, 84, 92)


Screens X–X

## Activity 2 Pairs | 15 min

Students solve *Put Together/Take Apart, Total Unknown* and *One Addend Unknown* story problems. In the Connect, they discuss strategies for applying what they know about two-digit numbers represented with different amounts of tens and ones to solve these problems.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on representing two-digit numbers with different amounts of tens and ones by determining whether a series of representations show a given number.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Get Your Numbers in Order, Stage 1,* in which they take turns making and recording two-digit numbers from least to greatest.

**Additional Prep** Prepare: Place Gameboards in sheet protectors



Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *The Collectors*
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** sticky notes

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 10 min

# Warm-Up Estimation Exploration

**Purpose:** Students estimate the quantity of cubes arranged as amounts of tens and ones to develop a flexible understanding of the base-ten structure of two-digit numbers.

Presentation Screen X


**Image A**

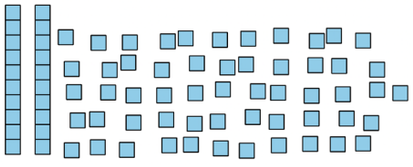
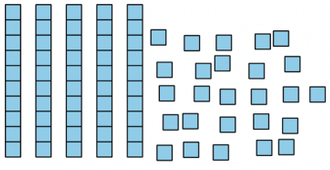


**Image B**



## Launch

X-X **Display** Image A.

**Use the Estimation Exploration routine.**

**Ask,** "About how many cubes do you think are in this image? What is your estimate? How did you come up with your estimate?"

## Connect

X-X **Record** students' responses as they share.

**Display** Image B.

**Ask,** "This image shows the same number of cubes arranged in a different way. Based on Image B, does anyone want to revise their estimate? What made you change your mind?"

**Use the Think-Pair-Share routine.** Ask, "These images show 76 cubes. Why do you think some estimates were more accurate the second time?"

**Say,** "When estimating larger numbers, thinking about how many tens you could make can help you make more accurate estimates."

**Students might say . . .**

A: I see 2 tens and a lot of ones, so my estimate is 100.

A: I think there are about 60 because I see 2 tens, and I think there are enough ones to make about 4 more tens. 6 tens is 60.

B: My first estimate was 100. Now I see 5 tens, but there are not enough ones to make 5 more tens, so 100 was too high. I want to change my estimate to 80.

B: My first estimate was 60, but now I think that is too low because I see more than 10 ones. My new estimate is 74.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 1 How Many in the Collection?

**Purpose:** Students apply their understanding of the meaning of the digits in two-digit numbers to represent a two-digit number in 3 ways using different amounts of tens and ones and to interpret their classmates' representations.

Presentation
Screens X–X


## Launch

Launch
Storyboard Art
FPO

X–X **Read aloud** page 1 of the Unit Story.

**Say,** "Steph was excited about Curioso collections after her first trip to the Briarcliff Flea Market. After a second trip to the flea market with her friends, Steph could not stop thinking about all kinds of collections! She started asking everyone she knew about anything they collected and the number of items in their collections."

**Distribute** one of the prepared sticky notes to each pair.

**Say,** "Each group has a number that represents the number of objects in someone's collection. Do not write your number in your book."

**Read aloud** Problem 1. Give pairs 5 minutes to complete Problem 1.

**Read aloud** Problem 2.

**Say,** "Place your sticky note on the back of the page in your partner's or your book. Trade books with another pair and complete Problem 2. After you and your partner discuss, look at the sticky note on the back of the page to check your thinking."

**Provide** access to connecting cube towers of 10 and single cubes.

### Materials

- Display and read aloud page 1 of the Unit Story, *The Collectors*.

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Classroom materials:**

- Prepare one sticky note for each pair by writing a two-digit number (37, 45, 50, 56, 63, 71, 84, 92) on the sticky note before the activity. Repeat the numbers as needed.
- Distribute one sticky note to each pair.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What is 1 way to represent the tens and ones in this number?"
- Ask, "What is another way that you can show one of the tens in this number?"

[A] **Accessibility: Visual-spatial processing** Guide processing by having students refer to the representations they created in Lesson 20 to guide their thinking and visualization.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** a pair's representations from Problem 1.

**Invite students to share** their responses to Problem 2. Select and sequence their responses in the order shown in the *Differentiation* table.

**Ask** (if not yet mentioned during discussion), "What is the same and what is different in these representations?"

[EL] **Multilingual/English Learners:** As students respond, display students' thinking and add annotations, such as arrows and color coding, to show where students see the tens and ones in each representation.

**Key Takeaway:** Say, "1 way to figure out what two-digit number is represented is to figure out how many tens there could be first. This might include ones that could be grouped to make 1 or more tens. Then you can figure out how many ones are remaining."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count by tens and ones to find the value of each representation. | 10, 20, 30, 31, 32, 33, 34, 35, 36, 37<br>10, 20, 21, 22, 23, …, 37<br>10, 11, 12, 13, …, 37 | **Strengthen:** Ask, "How could you figure out what number is represented without counting?" |
| Combine the value of the tens and the value of the ones to find the value of each representation. | 3 tens 7 ones is 37. 2 tens 17 ones is 20 + 17, and that equals 37. 1 ten 27 ones is 10 + 27, and that equals 37. | **Strengthen:** Ask, "How could you know that all of these representations show the same number without finding the value of each representation?" |
| Find the total number of tens (including groups of 10 ones) and remaining ones in all of the representations to identify the value. | All of these representations could have 3 groups of 10 and 7 more ones, so they all show the number 37. | **Stretch:** Ask, "Are there any other ways to represent this number? How could you know if all the ways are included?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Activity 2 Mystery Bags

**Purpose:** Students apply their understanding of how two-digit numbers can be represented as different amounts of tens and ones as they solve *Put Together/Take Apart, Total Unknown* and *One Addend Unknown* story problems.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "Now, you will use what you know about representing numbers as different numbers of tens and ones to solve problems about connecting cubes in mystery bags."

**Read aloud** the directions and Problems 3–5.

**Say,** "You can use drawings, numbers, words, or expressions."

**Provide** access to connecting cube towers of 10 and single cubes.

**[A] Accessibility: Conceptual processing** Guide processing by providing questions students can ask themselves, such as, "What tools can I use to represent the problem? How can I show the number I know? How can I figure out the unknown number?"

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider omitting Problem 3.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What part of the story could you represent first to help you solve?"

## Connect

Connect Storyboard Art FPO

X–X **[L]** This Connect is structured using the *MLR7: Compare and Connect* routine.

**Invite students to share** their responses to Problem 4. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Ask:**

- "How are these strategies alike?"
- "How are these strategies different?"
- "Where do you see each of the numbers from the story in each strategy?"
- **[EL] Multilingual/English Learners:** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing with the class.

**Use the Think-Pair-Share routine.** Ask, "Which representations of tens and ones did you find helpful for solving these problems? Why?"

**Key Takeaway:** Say, "You can think about two-digit numbers as different numbers of tens and ones to solve problems."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

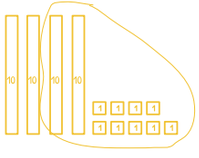
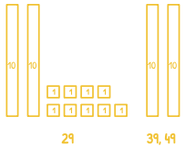
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Start with the total amount and separate or take away the part that is known. |  answer: 2 tens | **Strengthen:** Ask, "How can you use what you know about the tens and ones in the known numbers to solve the problem?" |
| Start with the part that is known and count on. |   answer: 2 tens | |
| Reason about the amounts of tens and ones. | 49 is 4 tens and 9 ones. 29 is 2 tens and 9 ones, so there must be 2 more tens in this bag. answer: 2 tens | **Stretch:** Say, "Write your own Mystery Bag problem. Then trade and solve another pair's problem." |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Two-digit numbers can be composed and decomposed into amounts of tens and ones in different ways. It can be helpful to think of two-digit numbers as different amounts of tens and ones when solving problems.

Presentation Screens X–X


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

21 ones and 3 tens

5 tens and 11 ones

4 tens and 11 ones

X–X **Use the Think-Pair-Share routine.** Ask (for each representation), "Is the value of this representation 51? How do you know?" Circle the correct response for each statement.

**Say,** "Mathematicians think flexibly about numbers. It can be helpful to create and find the values of representations of two-digit numbers with different numbers of tens and ones."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Create and interpret equivalent representations of a two-digit number using different amounts of tens and ones.
2. **Goal:** Represent and solve *Put Together/Take Apart, Result Unknown* and *One Addend Unknown* story problems that involve representing two-digit numbers with different amounts of tens and ones.
3. **Language Goal:** Justify whether different representations of the same two-digit number with different amounts of tens and ones have the same value. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–7 | 1 | NY-1.NBT.2 |
| **Spiral Review** | | | |
| | 8, 9 | 2 | NY-1.MD.4 |
| | 10 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Pairs | 15 min

# Introducing the Center
## Get Your Numbers in Order, Stage 1

**Purpose:** Students take turns making, recording, and ordering two-digit numbers from least to greatest to apply place value reasoning to compare numbers.

**Presentation Screens X–X**


### Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Gameboard.

**Demonstrate** how to play *Get Your Numbers in Order, Stage 1*. While demonstrating:

- **Say,** "You will play *Get Your Numbers in Order* today."
- **Say,** "First, I will flip over 2 cards and use them to make a two-digit number." Flip over and display Number cards 2 and 4.
- **Ask,** "What two-digit numbers can I make?"
- **Say,** "I can choose to write 24 or 42 in any open box on the Gameboard, as long as it is greater than any numbers before it and less than any numbers after it. I will record 24 in the first box because I know there are a lot of two-digit numbers that are greater than 24."
- **Use the Think-Pair-Share routine.** Ask, "Imagine my partner draws a 3 and a 7 next. What number could be made and where could it be recorded?"
- **Say,** "You and your partner will take turns making and recording numbers from least to greatest. If you make a number that cannot be placed in order on the Gameboard, you earn 1 point. The person with fewer points when all the boxes are filled is the winner."

### Materials

**Manipulative Kit:**

- Distribute one set of number cards (0–9) to each pair.

**Classroom materials:**

- Distribute two different-colored dry-erase markers to each pair.

**Centers Resources:**

- Place the Gameboards in sheet protectors **(Classroom materials)** before the activity.
- Display the Directions and Gameboard during the Launch.
- Distribute one Gameboard to each pair.

### Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students use place value reasoning to decide what numbers to create and where to place them in the sequence.

### Connect

Connect Storyboard Art FPO

X–X **Display** the Gameboard with numbers filled in as shown in Row 1 in the *Differentiation* table, and display Number cards 6 and 3.

**Use the Think-Pair-Share routine.** Ask:

- "What two-digit numbers can be made with these cards?"
- "Which number would you make? Why?"
- "How do you know where to record 36 on the Gameboard?"

**Ask,** "What do you want to keep in mind the next time you play this game?"

**Key Takeaway:** Say, "When putting two-digit numbers in order, you can think about the values of the digits in each number."

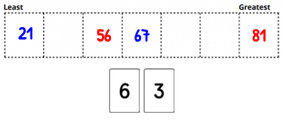
This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

**Centers Resources**

Center Direction Sheet

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Make and consider only 1 two-digit number to place on the board. |  <br><br>63 is greater than 56 and less than 67, so it has no place on the Gameboard. | **Support:** Ask, "What is another number you can make using your cards? Is there a place for that number on the board?" |
| Consider both possible numbers and use counting to determine a place in the order. | 56, 57, 58, …, 63, 64, 65, 66, 67<br>63 does not work because it would be between 56 and 67.<br>21, 22, 23, …, 36, 37, 38, …, 56<br>36 can go between 21 and 56 because it comes between 21 and 56 when I count. | **Strengthen:** Ask, "How could you use what you know about the values of the digits to compare the numbers?" |
| Consider both possible numbers and use place value reasoning to determine a place in the order. | 63 is greater than 56 and less than 67, so it does not fit. 36 has 3 tens, so it is greater than 21. There are 5 tens in 56, so 36 is less. 36 is greater than 21 and less than 56. | **Stretch:** Ask, "Are there any number cards you hope to draw on your next turn? Are there any number cards you do not want on your next turn? Why or why not?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 21

**Lesson Goal:** Create and interpret equivalent representations of a two-digit number using different amounts of tens and ones.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Create and interpret a representation of a two-digit number with amounts of tens and ones that match the digits in the written numeral.

**Respond:**

- **Mini-Lesson** | 15 min
  *Representing the Same Two-Digit Number in Different Ways*
- **Lesson 21 Refresh Video**

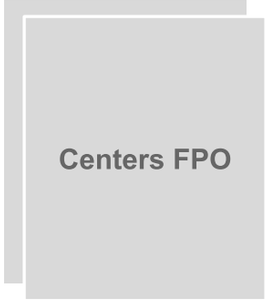

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Create and interpret more than 1 representation of a two-digit number with different amounts of tens and ones.

**Respond:**

- **Centers** | 15 min
  *Greatest of Them All*, Stage 1
  *Last Number Wins*, Stage 2
  *Mystery Number*, Stage 1
- **Lesson 21 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Create and interpret all possible representations of a two-digit number with different amounts of tens and ones.

**Respond:**

- **Sub-Unit 4 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

What question do you wish you had asked today? When and why could you have asked it?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 4 | **LESSON 22**

# Collection Showcase!

## Comparing Two-Digit Numbers Represented in Different Ways

Let's compare two-digit numbers shown as numbers of tens and ones.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goal

1. **Goal:** Interpret and compare representations of two-digit numbers that show different amounts of tens and ones and record the comparisons using the >, <, and = symbols.

Students compare two-digit numbers represented as amounts of tens and ones. They apply what they know about tens and the structure of two-digit numbers as they compose and decompose tens to make sense of the representations. Students notice and make use of structure and use repeated reasoning as they interpret the different representations and record the comparisons using the >, <, and = symbols. **(MP7)**

### Prior Learning

In Sub-Unit 3, students compared one- and two-digit numbers using place value reasoning and recorded the comparisons using the >, <, and = symbols. In Lessons 20 and 21, they created and interpreted representations that show two-digit numbers with different amounts of tens and ones.

### Future Learning

In Unit 5, students will apply their knowledge of the base-ten structure of two-digit numbers to add within 100. In Grade 2, students will compare 2 three-digit numbers using place-value based strategies.

## Rigor and Balance

- Students deepen their **conceptual understanding** of place-value based strategies for comparing 2 two-digit numbers.
- Students **apply** their understanding of the meanings of the digits to compare two-digit numbers represented with different amounts of tens and ones.

## Vocabulary

**Review Vocabulary**

- *greater than*
- *less than*

## Standards

**Addressing**

**NY-1.NBT.3**

**Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.**

*Also Addressing*: NY-1.OA.6a, NY-1.NBT.1

**Mathematical Practices:** MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-1.NBT.2 | NY-1.NBT.4 |

**I can be all of me in math class.**
Why is it important to be respectful when mathematicians share their ideas?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Standards: NY-1.NBT.3, NY-1.OA.6a, NY-1.NBT.1

## Warm-Up Whole Class | 5 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Independent | 15 min

Students interpret and compare representations of two-digit numbers represented with different amounts of tens and ones. They discuss 2 comparison strategies — finding and comparing the total value of the numbers and finding and comparing the amount of tens in each number.


Screens X–X

## Activity 2 Independent | 20 min

Students interpret and compare two-digit numbers represented in different ways to practice comparison strategies and to write true comparison statements that show the relationship between 2 numbers.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on what they have learned about two-digit numbers in this unit.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting and writing two-digit numbers.

- Get Your Numbers in Order, Stage 1
- Greatest of Them All, Stage 1
- Mystery Number, Stage 1



Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** connecting cubes (optional)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Warm-Up Number Talk

**Purpose:** Students find sums of addition expressions within 20, in which 1 addend is 10 or near 10, to practice using known sums to figure out unknown sums.

Presentation Screen X


| A | B |
|---|---|
| 10 + 6<br>16 | 9 + 6<br>15 |
| **C** | **D** |
| 10 + 7<br>17 | 8 + 7<br>15 |

**Why these problems?** These expressions lend themselves to using compensation.

## Launch

**Use the Number Talk routine.**

X-X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X-X **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions B and D.

**Ask** (if not yet mentioned during discussion), "How could you use the sum of Expression B to find the sum of Expression D?"

### Students might say . . .

A: I know 10 and 6 ones is 16.

B: 10 and 6 is 16. 9 is 1 less than 10, so 9 and 6 is 15.

C: A ten and 7 ones is 17.

D: 9 and 6 is 15. I know 8 and 7 is also 15 because 1 addend went up by 1 and the other addend went down by 1.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Independent | 15 min

# Activity 1 Getting Ready

**Purpose:** Students apply place value reasoning to interpret and compare two-digit numbers represented as words or expressions.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say:**

- "Steph's teacher noticed students were talking about collecting things. He said to the class, 'We will have a collection showcase on Friday! You will get to share a collection and make a representation of the amount in the collection.'"
- "That week, Steph, Tim, Kat, and Lee met after school to count their Curioso cards and record their representations."

**Read aloud** Problems 1 and 2.

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Executive functioning** Invite students to make a plan for completing Problems 1 and 2 by first determining how they will show their thinking and then gathering the tools they need to represent their work. Circulate and clarify task directions as needed.

**Materials**

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider omitting Problem 2.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what do you need to do?"
- Ask, "How could you use tools or a drawing to help you think about the number shown in each representation?"

## Connect

Connect Storyboard Art FPO

X–X [L] This Connect is structured using the *MLR7: Compare and Connect* routine.

**Invite students to share** their responses to Problem 1. Select and sequence their responses in the order shown in Rows 2 and 3 in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask:

- "What is the same about these comparing strategies?"
- "What is different about these comparing strategies?"

**Key Takeaway:** Say, "There is more than 1 way to compare two-digit numbers represented with different numbers of tens and ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

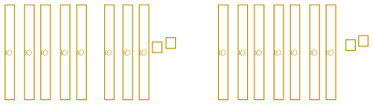
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Compare the stated amounts of tens. | 7 tens is more than 5 tens, so Lee has more. | **Support:** Ask, "You compared the number of tens stated in the problem. What do you notice about the ones?" |
| Find and compare the total value of each representation. | 50 + 32 = 82 and 70 + 2 = 72<br>82 > 72, so Steph has more. | **Strengthen:** Ask, "You found the total number of cards each person has. How could you figure out who had more without finding the total number of cards?" |
| Find and compare the total amounts of tens. |  <br>8 tens is more than 7 tens, so Steph has more. | **Stretch:** Ask, "How many more Curioso cards does Steph have than Lee?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Independent | 20 min

# Activity 2 The Big Day

**Purpose:** Students interpret a variety of base-ten representations of two-digit numbers to practice making and recording true comparison statements.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Say,** "It was the big day — collection showcase day! As Steph's classmates shared their amazing collections, she felt like she got to know everyone a little better. As she looked around the room, she saw that her classmates had represented their collections in different ways."

**Read aloud** the directions.

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Memory and attention** Vary the task demands by having students focus on completing 3 of the 4 problems and only complete the additional problem when they have more processing time.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "In your own words, what do you need to do?"
- Ask, "What number does this representation show? What number does the other representation show?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Problem 4.

**Say,** "Steph's partner said the bracelets have 4 tens and the rocks have 3 tens, so there are more bracelets than rocks."

**Use the Think-Pair-Share routine.** Ask, "How could Steph respond to her partner?"

**[L] MLR8: Discussion Supports – Active Listening**

- Invite students to begin partner interactions by restating their partner's ideas, in their own words, before adding their own ideas to the discussion.

**Say** (if not yet mentioned during discussion), "The rocks have 3 tens and 22 ones, which means the total number of rocks is 52. 5 tens is greater than 4 tens, so 52 is greater than 42, and 42 is less than 52."

**Key Takeaway:** Say, "When comparing representations of two-digit numbers, it is important to notice if there are ones that could be grouped to make 1 or more tens."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Write a comparison statement that includes a number not represented in the problem. | 42 > 32 | **Support:** Ask, "How could you use tools or a drawing to prove how many are in each of the collections?" |
| **Almost there** Write a comparison statement that shows a different relationship between the numbers. | 42 > 52 | **Support:** Ask, "Which number is greater? Which number is less? Read your comparison statement aloud." |
| Write a comparison statement that shows the relationship between the numbers. | 42 < 52 | **Strengthen:** Ask, "What other comparison statement could you write to show the relationship between the values?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Different strategies can be used to compare representations of two-digit numbers that are represented with different amounts of tens and ones.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

74

X–X **Ask,** "What do you know about this number?"

**Record** students' responses.

**Say,** "You will continue working with two-digit numbers in the next unit."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goal

1. **Goal:** Interpret and compare representations of two-digit numbers that show different amounts of tens and ones and record the comparisons using the >, <, and = symbols.

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.3, NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 5, 6 | 2 | NY-1.MD.4 |
| | 7 | 1 | NY-1.OA.7 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation
Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Get Your Numbers in Order


**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students make and record two-digit numbers from least to greatest to apply place value reasoning when considering the relationships between numbers.

**Materials**

- number cards (0–9) **(Manipulative Kit)**
- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Greatest of Them All


**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students create the greatest two-digit number possible to apply place value reasoning when comparing numbers.

**Materials**

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Mystery Number

Placeholder for Center Icon

**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2

Students use place value reasoning to guess two-digit numbers.

**Materials**

- two-color counters **(Manipulative Kit)**
- Directions, Reference Sheet, Gameboards (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 22

**Lesson Goal:** Interpret and compare representations of two-digit numbers that show different amounts of tens and ones and record the comparisons using the >, <, and = symbols.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Write a comparison statement that includes a number other than those in the representations or shows a different relationship between the numbers.

**Respond:**

- **Mini-Lesson** | 15 min
  *Comparing Different Representations of Two-Digit Numbers*
- **Lesson 22 Refresh Video**

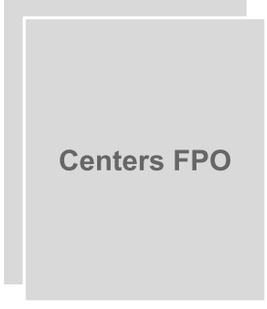

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Write a comparison statement that shows the relationship between the numbers in the representations.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 7
  *Last Number Wins*, Stages 1 and 2
- **Lesson 22 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

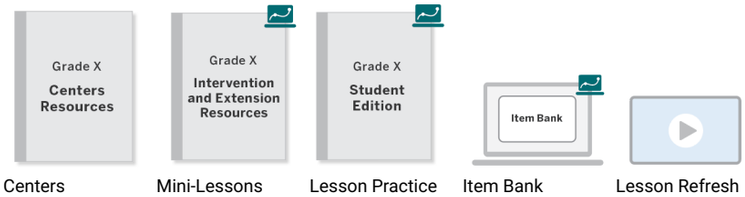
**If Students:** Write 2 comparison statements that show the relationship between the numbers in the representations.

**Respond:**

- **Sub-Unit 4 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

Think about a recent time in class when students were confused. What did you do to support them in reasoning through their confusion together as a community of learners?

Amplify Desmos Math **NEW YORK**

GRADE 1

# Unit 5

## Adding Within 100

Teacher lesson plans from Unit 5 are included here to enable your review of Amplify Desmos Math New York content that demonstrates coverage of the **Operations and Algebraic Thinking (NY-1.OA)** and **Number and Operations in Base Ten (NY-1.NBT)** foundational areas. We only included lessons in this unit that focus on the Foundational Standards.

Lessons in this unit include content that is pre-publication. We have included placeholder boxes and text to help you understand where final content and text will be placed. These lessons will be updated to match the design of Unit 1 provided in the Teacher Edition Sampler, Volume 1.

Lessons included in this unit include:

- **Lessons 5.01 – 5.14**

# Unit at a Glance

**Unit Investigation**

Launch the unit with this engaging mathematical task!

## Assess and Respond

### A Pre-Unit Check

Learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1.

NY-1.OA.6a NY-1.NBT.4 NY-1.NBT.5
MP7 MP8

## Unit Investigation

### 1 Investigate

**Squashes at the Playground**

Add within 100 to reason about how adding ones or tens will affect the sum.

Building Toward NY-1.NBT.4
MP1 MP2 MP8

## Sub-Unit 1

### 2 Gathering Buckets

**Adding Tens or Ones to a Two-Digit Number**

Interpret scenarios to determine whether an amount of ones or tens was added to a two-digit number.

NY-1.NBT.4 NY-1.OA.8
MP2 MP6 MP7

### 3 Town Helpers

**Adding 2 Two-Digit Numbers Without Composing a Ten**

Compare and discuss strategies for adding 2 two-digit numbers that are not multiples of 10.

NY-1.NBT.4 NY-1.NBT.1
MP2 MP6 MP7

### 7 Using What You Know

**Decomposing an Addend To Make a Ten**

Add a two-digit and one-digit number by decomposing to make a ten and adding the remaining ones.

NY-1.NBT.4 NY-1.OA.6a
MP5 MP7 MP8

### 8 Special Deliveries

**Recognizing If a Ten Will Be Composed Before Adding**

Analyze addition expressions to determine when composing a ten will be necessary prior to finding the sum .

NY-1.NBT.4
MP7 MP8

## Assess and Respond

### A Quiz: Sub-Unit 2

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.NBT.4 NY-1.OA.8
MP7

## Sub-Unit 3

### 9 Decorating for the Festival

**Composing a Ten When Adding 2 Two-Digit Numbers**

Add 2 two-digit numbers that require composing a ten.

NY-1.NBT.4
MP6 MP7 MP8

### 14 Wazzle-Squash Data

**Using Addition Within 100 to Interpret Data**

Use addition within 100 to ask and answer questions about data presented in a table.

NY-1.NBT.4 NY-1.MD.4
MP2 MP3 MP6

### 15 Money, Money

**Recognizing and Identifying Coins and Their Value**

Recognize and identify coins (penny, nickel, dime, and quarter) and their value. Use the cent symbol (¢) appropriately.the sum.

NY-1.MD.3b
MP3 MP6

### 16 Dimes and Pennies

**Finding the Value of a Collection of Coins**

Count a mixed collection of dimes and pennies to determine the cent value (less than 100 cents)

NY-1.MD.3b
MP3 MP7

## Summative Assessment

### A End-of-Unit Assessment

Learn about your students' understanding of the concepts and skills in the unit.

NY-1.NBT.4 NY-1.MD.4 NY-1.OA.8
MP7

## Assess and Respond

## Sub-Unit 2

### 4 Making Squash Butter

**Using Equations and Drawings to Represent Strategies for Finding Sums**

Represent, explain, and interpret strategies for finding sums of 2 two-digit numbers.

NY-1.NBT.4
MP4 MP6 MP7 MP8

### A Quiz: Sub-Unit 1

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.NBT.4 NY-1.OA.8
MP7

### 5 Appreciating the Helpers

**Composing a Ten When Adding**

Represent and solve story problems that require adding two-digit and one-digit numbers, with and without composing a ten.

NY-1.NBT.4
MP2 MP7

### 6 Exploring a New Math Tool

**Using a Tens and Ones Mat to Compose a Ten When Adding**

Use cubes and a *Tens and Ones Mat* to represent adding a two-digit and one-digit number by place, with composing a ten.

NY-1.NBT.4
MP5 MP7

### 10 Sending Invitations

**Using a Tens and Ones Mat to Add 2 Two-Digit Numbers**

Use cubes and a *Tens and Ones Mat* to represent adding 2 two-digit numbers by place, with composing a ten.

NY-1.NBT.4
MP4 MP7

### 11 Thinking About the Sum

**Assessing and Making Statements About Sums Before Solving**

Use place value understanding to evaluate and make statements about the sums of 2 two-digit numbers before adding.

NY-1.NBT.4 NY-1.OA.8
MP6 MP7

### 12 Last Minute Preparations

**Decomposing Addends to Add by Place and Make a Ten**

Share and compare addition strategies to recognize that an addend can be decomposed into more than one part.

NY-1.NBT.4 NY-1.NBT.1
MP7 MP8

### 13 Wazzle-Squash Festival

**Using Compensation to Add Within 100**

Explore compensation as a strategy for adding 2 two-digit numbers.

NY-1.NBT.4
MP6 MP7 MP8

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 1**

# Investigate: Squashes at the Playground

How many wazzle-squashes are piled up at the playground?

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goal

1. **Goal:** Find sums of two-digit multiples of 10 and one-digit numbers within 100.

To build curiosity and interest from the start of the unit, students engage in a nonroutine task that elicits multiple strategies and solutions. They apply their own knowledge and language to a new mathematical task. Giving students a nonroutine task with multiple answers and solution paths allows them to truly engage in the mathematical practices and invites all students to see themselves as mathematicians. **(MP1)**

In this investigation, students find sums of two-digit multiples of 10 within 100 and one-digit numbers to reason about how adding tens or ones will affect the sum. **(MP2, MP7)**

This investigation provides students with an opportunity to deepen their understanding of place value concepts, which they will later apply when finding the sum of one and two-digit numbers within 100.

**Caregiver Connection**

Students may enjoy naming, writing, or adding quantities within 100 at home. Consider encouraging families to ask students questions about the number of tens and ones in the values.

## Standards

**Building Toward**

**NY-1.NBT.4**

Add within 100, including

- a two-digit number and a one-digit number,
- a two-digit number and a multiple of 10.

Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP1, MP2, MP7

**Building On**

**NY-1.NBT.2**

**NY-1.NBT.3**

# Lesson at a Glance 60 min

Print Lesson

Standard: Building Toward: NY-1.NBT.4

## Warm-Up Whole Class | 15 min

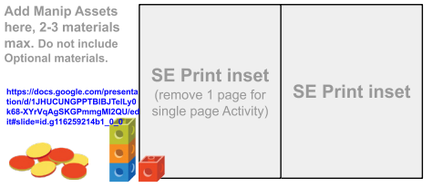
Students engage in the **Notice and Wonder** routine after hearing the Unit Story read aloud. Because there is no single correct response, this invitational routine allows all students to share their mathematical curiosity about the unit narrative to which they will return throughout the unit.


Screens X–X

## Activity Pairs | 45 min

Students use their understanding of place value and addition to find possible amounts of wazzle-squashes at the Faraway Playground, using mathematical information from the mayor.

**Additional Prep** Assemble: towers of 10 connecting cubes




Screens X–X

### Opportunities for Extension (Optional)

Students can use addition to find the sums of objects in their environment, such as the classroom or playground.

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition

### Additional required materials:

- **Lesson Resources:** Activity PDF (for display), *Investigations Organizer* PDF (optional)
- **Manipulative Kit:** connecting cubes (towers of 10 and single cubes) (optional)

Print Lesson | Whole Class | 15 min

# Warm-Up Notice and Wonder

**Purpose:** Students hear a read aloud of *The Day of the Wazzle-Squash.* They notice and wonder about mathematical situations in the story.

Presentation Screen X


Placeholder for Warm-up Projection

## Launch

X **Display** the cover of the Unit Story, *The Day of the Wazzle-Squash*.

**Use the Think-Pair-Share routine.** Activate students' background and prior experiences by asking, "What do you know about storms?"

X–X **Read aloud** the Unit Story, found on pages X–X of this Teacher Edition while displaying the illustrations on Screens X–X.

**Use the Notice and Wonder routine.**

**Pause** on pages 1, 5, and 10. For each page, ask, "What do you notice? What do you wonder?"

## Connect

**Display** Screen 6 of the Unit Story.

**Use the Think-Pair-Share routine.** Ask, "Where did you see math in the story? What do you wonder about about the amounts of wazzle-squashes that had to be cleaned up?""

**Record** students' responses as they share.

**Say,** "In this unit, you will use what you know about tens and ones to find sums. Just like Carmina and the townsfolk learned, there can be more than one way to solve a problem. Today you will help the mayor of Faraway find the amount of wazzle-squashes at the playground."

**Students might say . . .**

A: I notice the wazzle-squashes are different colors.

B: I notice the wazzle-squashes are different sizes.

C: I wonder how many squashes there are?

D: I wonder what the wazzle-squashes taste like.

Print Lesson | Pairs | 45 min

# Activity How many wazzle-squashes are at the playground?

**Purpose:** Students use their understanding of place value and addition to interpret given information and determine how many wazzle-squashes could be at the playground.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Display** page 6 of the Unit Story.

**Say,** "After the town helpers gathered wazzle-squashes from the streets and neighborhoods, Mayor Viola said they would need to clean up the Faraway playground. The mayor had information reported to her about the total amount of wazzle-squashes at the playground, but she needed help with interpreting the information to find how many squashes might need to be gathered in total."

**Display** the Activity PDF.

**Read aloud** the information on the Activity PDF.

**Say,** "Use the mayor's information to find different amounts of wazzle-squashes that could be at the playground."

**Provide** access to connecting cube towers of 10 and single cubes.

**[A] Accessibility: Visual-spatial processing** As the information on the Activity PDF is read aloud, highlight or underline key information to help students keep track of relevant facts about the problem.

### Materials

**Lesson Resources:**

- Display the Activity PDF during the Launch and leave it displayed throughout the activity.
- Provide students with access to the *Investigation Organizer* PDF during the Connect(optional).

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

### Make It Your Own!

This activity is written with the example of wazzle-squashes. If there is something more relevant to your students, the question can be changed to account for students' interests and developing their math community and identity.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

As students complete the activity, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "How can you use Mayor Viola's information to help you find the number of squashes on the bench?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** different amounts of wazzle-squashes they found.

**Use the Think-Pair-Share routine.** After each pair shares, ask:

- "How did you decide which two numbers to add?"
- "How can you prove that the sum you found could be an amount of wazzle-squashes at the playground?"
- **[EL] Multilingual/English Learners:** Use wait time to allow students to formulate and rehearse what they will say with a partner before sharing with the class.

**Invite students to share** their reflections. Provide the *Investigation Organizer* PDF to those students who wish to write or draw their reflections.

**Key Takeaway:** Say, "You used what you know about tens and ones and addition to find different amounts of wazzle-squashes that could be at the Faraway playground. In this unit, you will continue to try out and explore new strategies for adding one and two-digit numbers."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Find an amount of squashes that could be at the playground using some of the given information. | slide: 5<br>bench: 20<br>5 + 20 = 25 | **Strengthen:** Ask, "How can you use the mayor's information to prove this could be the total amount of wazzle-squashes at the playground?" |
| Find an amount of squashes that could be at the playground using all the given information. | slide: 5<br>bench: 50<br>5 + 50 = 55 | **Strengthen:** Ask, "Could there be any other amounts of wazzle-squashes at the playground?" |
| Find more than one amount of squashes that could be at the playground using all the given information. | slide: 5<br>bench: 50<br>5 + 50 = 55<br>or<br>slide: 5<br>bench: 60<br>5 + 60 = 65 | **Stretch:** Ask, "What is an amount of wazzle-squashes that could not be at the playground? How do you know?" |

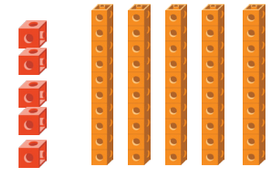
# Activity **Sample Student Work**

Students will likely represent their answer to the Investigation question in different ways. Because this is the beginning of the unit, there is no expectation for students to sort or represent the books in a specific way.

## How many wazzle-squashes are at the playground?

**Sample student responses:**

**Sample response 1**



slide 5 bench 50

55

**Sample response 2**

bench 50

slide 5

50, 51, 52, 53, 54, 55

**Sample response 3**

1 + 50 51 wazzle-squashes
2 + 50 52 wazzle-squashes
3 + 50 53 wazzle-squashes
4 + 50 54 wazzle-squashes
5 + 50 55 wazzle-squashes

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 2**

# Gathering Buckets

## Adding an Amount of Tens or Ones to a Two-Digit Number

Let's add a number of tens or ones.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add an amount of tens or an amount of ones to a two-digit number.
2. **Language Goal:** Compare addition equations in which an amount of tens or ones is added to a two-digit number. **(Writing)**
3. **Language Goal:** Justify if an amount of tens or ones was added to a two-digit number. **(Speaking and Listening)**

Students interpret story problems involving the sum of two numbers within 100 to determine if an amount of tens or ones was added to a two-digit number and justify their thinking. They notice similarities and differences when adding ones to a number compared with adding tens to a number and use that understanding to reason about the sums. This work sets the foundation for adding by place when adding 2 two-digit numbers. Grade 1 standards indicate students will represent and solve story problems within 20; however, in this unit students will solve story problems with larger amounts to engage with place value concepts in and out of context. **(MP2, MP3, MP8)**

### Prior Learning

In Unit 4, students began developing conceptual understanding of place value and added multiples of 10 and two-digit numbers within 100.

### Future Learning

In Lesson 3, students will find the sum of 2 two-digit numbers in which neither number is a multiple of 10.

## Rigor and Balance

- Students develop **conceptual understanding** of addition within 100.
- Students **apply** their understanding of place value to solve problems with real-world contexts.

## Vocabulary

**Review Vocabulary**

- *addend*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

*Also Addressing*: NY-1.OA.8

**Mathematical Practices:** MP2, MP3, MP7, MP8

### Building On

**NY-1.NBT.1**
**NY-1.NBT.2**
**NY-1.OA.1**

**We are a math community.**
In the Unit Story, everyone helped. How are you helpful in the math classroom community?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.NBT.4, NY-1.OA.8

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **True or False?** routine in which they determine whether a series of addition equations are true or false and justify their responses. **(MP3, MP7)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students interpret three story problems to determine if an amount of tens or an amount of ones was added to a two-digit number.

**Additional Prep** Assemble: towers of 10 connecting cubes

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students find the unknown sum in a series of addition equations in which one addend is a two-digit number and the other addend is an amount of tens or ones. Students analyze two equations and notice that although the digit 2 is part of an addend in the equations, it does not represent the same value.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how it could be helpful to think about the value of each digit in an addend when finding the sum of 2 numbers.

SE Print inset

Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Cover Up, Stage 8*, in which they add 2 numbers without composing a ten to practice strategies for finding sums within 100.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeiLy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** connecting cubes (towers of 10 and single cubes) (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up True or False? **Fluency**

**Purpose:** Students analyze equations involving adding an amount of tens or ones to a two-digit number, without evaluating all expressions, to develop place value strategies for adding within 100.

Presentation Screen X


| A | B |
|---|---|
| 50 + 23 = 73<br>True | 5 + 23 = 73<br>False |
| **C** | **D** |
| 64 = 6 + 40<br>False | 46 = 6 + 40<br>True |

**Why these problems?** These equations lend themselves to considering the value of each digit in an addend when finding sums within 100.

## Launch

**Use the True or False? routine.**

x–x **Display** 1 equation at a time.

**Say,** "Give me a signal when you know whether the statement is true and can explain how you know."

## Connect

x–x **Record** 2 or 3 students' responses, asking for their reasoning and allowing others to agree or disagree. Keep each equation displayed as you progress to the next.

**Repeat** with each equation.

**Ask,** "Why might someone think Equation C is true, even though it is false?"

**Students might say . . .**

A: True. 5 more tens than 23 is 7 tens and the number of ones does not change.

B: False. If 50 + 23 is 73, then 5 + 23 cannot be 73.

C: False. 64 has 6 tens and 4 ones. In the expression 6 + 40 there are 4 tens and 6 ones.

D: True. 46 has 4 tens and 6 ones. 40 is 4 tens and 6 is 6 ones.

Print Lesson | Pairs | 15 min

# Activity 1 How Many Buckets?

**Purpose:** Students use their understanding of place value to interpret story problems involving addition to determine if tens or ones were added to a two-digit number.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "The people in the town needed a lot of buckets to gather all the wazzle-squash. A few shops in neighboring towns sell buckets in sets of 10 or single buckets and were willing to donate some of them to Faraway. Mayor Viola tried to keep track of the total number of buckets that were donated by adding a number of tens or a number of ones."

**Read aloud** the directions and Problems 1–3.

**Provide** access to connecting cube towers of 10 and single cubes.

**[A] Accessibility: Executive functioning** Demonstrate for students how to represent and show their thinking for Problem 1 using the connecting cubes.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider omitting Problem 2.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "Which part of this story problem could you represent to help you find if the mayor added a number of tens or ones?"

**[L] MLR1: Stronger and Clearer Each Time**

After students complete Problem 3, have pairs meet with 1–2 other pairs to justify if the mayor added tens or ones. Encourage listeners to ask clarifying questions using stems, such as:

- "What do you mean by . . .?"
- "Can you tell me more about . . .?"
- **[EL] Multilingual/English Learners:** Strategically pair students together who speak the same primary language. This will give students an opportunity to provide and receive feedback in their primary language before revising their responses in English.

## Connect

Connect
Storyboard Art
FPO

X–X **Invite students to share** their responses to Problem 3 by justifying if an amount of tens or ones was added to the two-digit number. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Key Takeaway:** Say, "When adding to a two-digit number, it is important to think about if you are adding a number of tens or a number of ones."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Compare the relative magnitude of the sum to one of the addends to reason about the answer. | 3 more ones is not that much more, and 84 is a lot more than 54. So, the answer must be 3 tens. | **Strengthen:** Ask, "How could you prove this is the correct answer?" |
| Find one sum or reason about one sum to eliminate one of the options. | I know 54 + 3 is 57, so the answer must be 3 tens. | |
| Reason about the sums to find the answer. | 54 + 3 is 57.<br>54 plus 3 tens would be 8 tens and 4 ones which is 84. | **Stretch:**<br>Ask, "How could someone prove their answer is correct by comparing the digits in 54 and 84?" |

Print Lesson | Pairs | 15 min

# Activity 2 Adding Them Up

**Purpose:** Students solve several addition problems to notice similarities and differences between adding an amount of tens and adding an amount of ones to a two-digit number.

**Presentation**
**Screens X–X**

**Materials**
**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

## Launch

Launch Storyboard Art FPO

X–X **Read aloud** the directions and Problems 4–7.

**Say,** "After you find each sum, tell your partner how you found the sum." Have students work on Problems 4–7 in pairs for 6–8 minutes.

**Provide** access to connecting cube towers of 10 and single cubes.

[EL] **Multilingual/English Learners:** If possible, pair students with different levels of English language proficiency together as they complete this activity. This will provide a structured opportunity for Multilingual Learners to interact with and receive feedback from their peers with varied language backgrounds.

**Read aloud** Problem 8.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 8**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you know about the numbers in this equation?"
- Ask, "Which part of this equation could you represent first to help you to find the sum?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their responses to Problem 8. Select and sequence their responses using the order shown in the *Differentiation* table.

**Say** (if not yet mentioned during discussion), "When adding 2 ones to 75, the number of ones in 75 changed and the number of tens did not. When adding 2 tens to 75, the number of tens in 75 changed and the number of ones did not."

**Key Takeaway:** Say, "When finding the sum of a number of tens or ones and a two-digit number, it is helpful to think about which digit in the two-digit number will change."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Compare the equations by identifying the addends. | They are the same because the equations have a 75. They are different because one has a 2 and the other has a 20. | **Strengthen:** Ask, "How was finding the sum of 2 + 75 different from finding the sum of 20 + 75?" |
| Compare the equations by attending to the place value of addends. | They are the same because the equations have a 75. They are different because one is adding 2 ones to 75 and one is adding 2 tens to 75. | **Strengthen:** Ask, "You noticed a difference in the value of the number you are adding to 75. How will the sums be different?" |
| Compare the equations by attending to the place value of addends and the sums. | They are the same because the equations have a 75. They are different because one is adding 2 ones to 75 and one is adding 2 tens to 75. The digit in the ones place changed in the sum in the first equation and the digit in the tens place changed in the second equation. | **Stretch:** Ask, "Before adding the number, how could you know which digit in the sum will change ?" |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When adding, it is necessary to add the same place values.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

$3 + 52 = 82$
$3 + 5 = 8$

X–X Say, "One of Carmina's friends was helping the mayor keep track of how many buckets they had after more were donated. The mayor told her to add 3 ones to 52. Carmina's friend said they have 82 buckets now and recorded these equations."

**Ask:**

- "What would you say to Carmina's friend about how she figured out how many buckets the town has?"
- (If not yet mentioned during discussion) "Did Carmina's friend add 3 ones or 3 tens to 52? How do you know?"

**Say,** "When finding sums in which 1 or both addends are a two-digit number, it is important to think about the value of the digits in each addend."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add an amount of tens or an amount of ones to a two-digit number.
2. **Language Goal:** Compare addition equations in which an amount of tens or ones is added to a two-digit number. **(Writing)**
3. **Language Goal:** Justify if an amount of tens or ones was added to a two-digit number. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.4, NY-1.OA.8 |
| | 5–8 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 9 | 2 | NY-1.OA.1 |
| Fluency | 10 | 1 | NY-1.OA.4, NY-1.OA.6a |
| | 11–14 | 1 | NY-1.NBT.2 |

Print Lesson

Pairs | 15 min

# Introducing the Center
## Cover Up, Stage 8

**Purpose:** Students add two numbers without composing a ten to practice strategies for addition within 100.

**Presentation Screens X–X**


### Launch

Launch Storyboard Art FPO

X–X **Display** the Center materials, Directions, and Gameboard.

**Demonstrate** how to play *Cover Up, Stage 8*. While demonstrating:

- **Say,** "You will play *Cover Up* today."
- **Say,** "First, I will put a cube on a number in the top gray row and another cube on a number in the bottom gray row." Put a centimeter cube on 4 and 23.
- **Use the Think-Pair-Share routine**. Ask, "What is the sum of 4 and 23?"
- **Say,** "I will place a counter on 27. My color is red, so I will place the counter with the red side up."
- **Say**, "Next, my partner will move one of the cubes and add the numbers. They will cover the sum with a counter with the yellow side up."
- **Say**, "Take turns moving one cube and finding the sum of the numbers. The first player to cover 5 sums in a row wins."

### Materials

**Manipulative Kit:**

- Distribute 2 centimeter cubes and 20 two-color counters to each pair of students.

**Centers Resources:**

- Display the Directions and Gameboard during the Launch.
- Distribute one Gameboard, Directions, and Recording Sheet to each pair.

### Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** the strategies students use to select 2 numbers to add.

### Connect

Connect Storyboard Art FPO

X–X **Display** Gameboard A with 27, 18, 28, and 65 covered with red counters, 24, 44, 64, and 45 covered in yellow counters, and a cube on 1 and 23.

**Ask,** "If your counters were red, and it was your turn, which cube would you move and where would you put it?"

**Say** (if not yet mentioned during discussion), "Since you could win by covering 54, you could move the cube from 23 to 53 and add 1 and 53."

**Key Takeaway:** Say, "When trying to cover 5 in a row, it is helpful to look at the gameboard before deciding which 2 numbers to add to see if you could make a sum that could be covered on the board."

**Centers Resources**


**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**<br>Select an addend that makes a sum that is already covered on the gameboard. | I added 41 and 2. That is 43, but 43 is already covered. | **Support:** Ask, "How could noticing which numbers are uncovered on the gameboard help you choose which numbers to add?" |
| Strategically select an addend to cover a specific sum on the gameboard. | Covering 58 can help me to cover 5 in a row. I need to find 2 numbers that have a total of 5 tens and 8 ones. | **Strengthen** Ask, "How is it helpful to think about the sum you want to cover before you select the numbers to add?" |

# Differentiation Use after Lesson 2

**Lesson Goal:** Add an amount of tens or an amount of ones to a two-digit number.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Add a digit in the tens place to a digit in the ones place.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding Tens or Ones to a Two-Digit Number*
- **Lesson 2 Refresh Video**

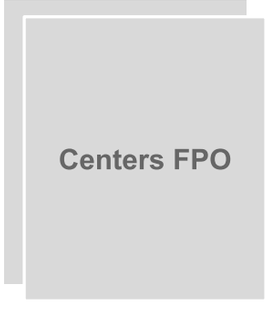

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Find the sum of a two-digit number and the value of an amount of tens or ones.

**Respond:**

- **Centers** | 15 min
  *Get Your Numbers in Order,* Stage 1
  *Greatest of Them All,* Stage 1
  *Mystery Number,* Stage 1
- **Lesson 2 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Find the sum of a two-digit number and an amount of tens or ones using place value reasoning.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

How does the work of this lesson prepare students for adding 2 two-digit numbers in the next lesson?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 3**

# Town Helpers

## Adding 2 Two-Digit Numbers Without Composing a Ten

Let's add to find the total number of helpers.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add 2 two-digit numbers that are not multiples of 10.
2. **Language Goal:** Describe how another pair added 2 numbers. **(Speaking and Listening)**
3. **Language Goal:** Ask questions about how another pair added 2 numbers. **(Speaking and Listening)**

Students add 2 two-digit numbers that are not multiples of 10 for the first time in Grade 1. After creating a representation to show how they solved a story problem, they participate in the **Gallery Tour** routine to interpret their classmates' representations and consider different strategies for finding sums. After analyzing the work of their peers, students discuss and compare strategies, including adding by place and counting on by tens and ones. **(MP2, MP6, MP7)**

### Prior Learning

In Lesson 2, students interpreted story problems to reason about sums within 100 and determine if an amount of tens or ones was added to the starting amount.

### Future Learning

In Lesson 4, students will continue to add 2 two-digit numbers and explain their strategies. They will consider the importance of representing or explaining each step used to solve.

## Rigor and Balance

- Students develop **conceptual understanding** of addition within 100.
- Students **apply** their understanding of place value and addition to solve problems with real-world contexts.

## Vocabulary

**Review Vocabulary**

- *addend*
- *equation*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP2, MP6, MP7

### Building On

**NY-1.NBT.2**

**NY-1.OA.1**

**We are a math community.**
What can you say to encourage someone who is working on a challenging math problem?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

**Standards:** NY-1.NBT.4, NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 10. As the count is displayed, students may notice patterns or structures in the count, such as how the ones and tens digits change, and consider why those patterns or structures show up. **(MP7)**


Screens X–X

## Activity 1 Pairs | 10 min

Students represent and solve a *Put Together/Take Apart, Total Unknown* story problem in which they find the sum of 2 two-digit numbers that are not multiples of 10. They create a representation showing how they solved to prepare for the **Gallery Tour** routine in Activity 2.

**Additional Prep** Assemble: towers of 10 connecting cubes


Screens X–X

## Activity 2 Pairs | 20 min

Students participate in a **Gallery Tour** to examine and ask questions about different strategies their peers used to find the sum of 2 two-digit numbers.


Screens X–X

## Synthesis Whole Class | 5 min

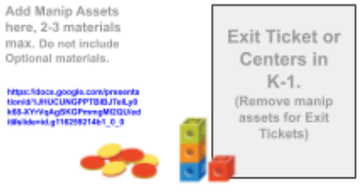
Students review and reflect on a strategy used to find the sum of 2 two-digit numbers. They identify an error made when solving and consider possible strategies that can be used to find the sum accurately.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice adding and comparing two-digit numbers.

- Cover Up, Stage 8
- Get Your Numbers in Order, Stage 1
- Greatest of Them All, Stage 1




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

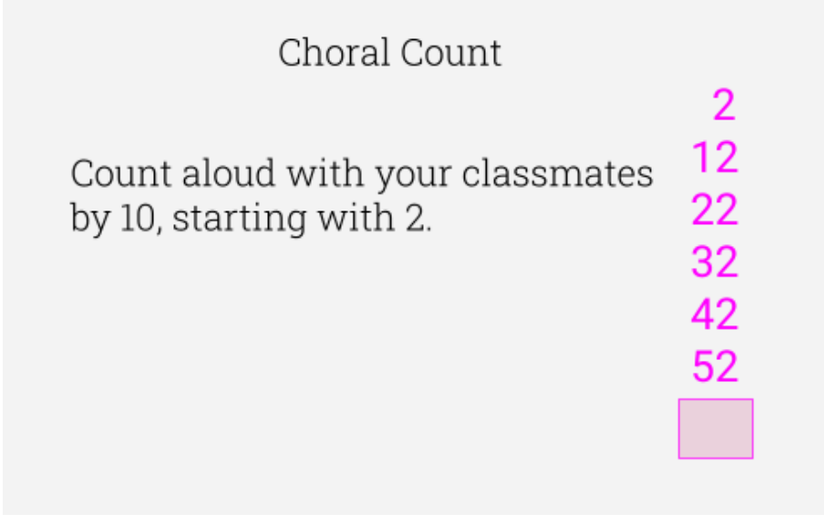
- **Manipulative Kit:** connecting cubes (towers of 10 and single cubes) (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up Choral Count

**Purpose:** Students count by 10 starting at 2 to notice patterns in the digits as numbers increase by 10.

Presentation
Screen X


## Launch

**Use the Choral Count routine.**

X-X **Say,** "Let's count by 10, starting at 2 and ending at 52."

**Display** each number as students count.

**Ask:**

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

## Connect

X-X **Record** students' responses as they share. Consider highlighting different patterns using different colors.

**Say,** after adding a box at the end of the displayed count, "Make a prediction about the number that will go in the box."

**Ask:**

- "How do you know?"
- "If you continued counting, would 95 be on the list? Why or why not?"

**Say,** "You will continue thinking about the digits in two-digit numbers in the next activity."

**Students might say . . .**

I notice that 2 is the only number that is less than 10.

I notice the digit in the tens place becomes greater by 1 with each count.

I notice the digit in the ones place is always 2.

Print Lesson | Pairs | 10 min

# Activity 1 Helpers Are Everywhere

**Purpose:** Students apply their understanding of place value and addition to solve a *Put Together/Take Apart, Total Unknown* story problem involving 2 two-digit numbers.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X

**Say**, "After the storm, many people in the town asked Mayor Viola how they could help."

**Read aloud** the directions and Problem 1.

**Say**, "After you solve the story problem, look at your representation and think about what else you could include to help others understand how you solved the problem. You will share your work with other pairs in the next activity."

**Provide** access to connecting cube towers of 10 and single cubes.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "Which part of the story problem can you represent to help you to find the sum?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Problem 1.

**Use the Think-Pair-Share routine**. Ask:

- "How is this problem similar to problems you have solved in the past?"
- "How is this problem different from problems you have solved in the past?"

**Ask**, "In this problem, you found the sum of 2 amounts. The amounts in the story problem are two-digit numbers that each represent a number of tens and ones."

**Key Takeaway:** Say, "There are many ways that you can add numbers. You will think about different ways to find the sum of 2 two-digit numbers in the next activity."

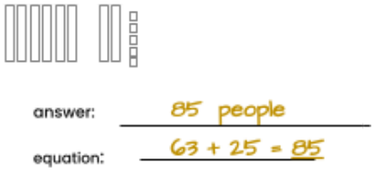
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Create a representation that shows a different sum or different addends. |  | **Support:** Ask, "Where do you see the numbers from the story problem in your representation? How could you prove your equation represents this story?" |
| Create a representation that shows some information about how they solved the story problem. | 83, 84, 85, 86, 87, 88 | **Strengthen:** Ask, "What else could you include in your representation to help others understand each step you took to solve the story problem?" |
| Create a representation that shows how they solved the story problem. | 63 + 20 = 83<br>83, 84, 85, 86, 87, 88 | **Strengthen:** Ask, "What do you think is most important for another pair to notice about your representation?" |

Print Lesson | Pairs | 20 min

# Activity 2 Gallery Tour: Finding Sums

**Purpose:** Students develop their understanding of addition within 100 as they ask questions about different strategies used to find the sum of 2 two-digit numbers.

Presentation
Screens X–X

## Launch

Launch Storyboard Art FPO

X–X **Use the Gallery Tour routine.** Say, "Look at the representations that other pairs made to show how they found the sum."

**Read aloud** Problems 2 and 3.

**Say,** "With your partner, discuss the questions in Problems 2 and 3 each time you visit a representation. When your partner asks you a question about how the other pair solved, use the representation to answer the question."

[A] **Accessibility: Memory and attention** Invite pairs to restate the directions for the Gallery Tour in their own words before they begin the activity. Provide time for students to ask clarifying questions, as needed.

**Short on time?** Consider reducing the amount of representations that students visit during the Gallery Tour, being sure that students visit at least 2 representations.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What is one thing you know about how this pair solved the problem?"
- Ask, "Where do you see the numbers from the story in their work? Where do you see the answer?"

## Connect

Connect Storyboard Art FPO

X–X [L] This Connect is structured using the *MLR7: Compare and Connect* routine.

**Display** Strategy A

**Use the Think-Pair-Share routine.** Ask, "This is one way to find the sum of 63 and 25. What do you notice about this strategy?"

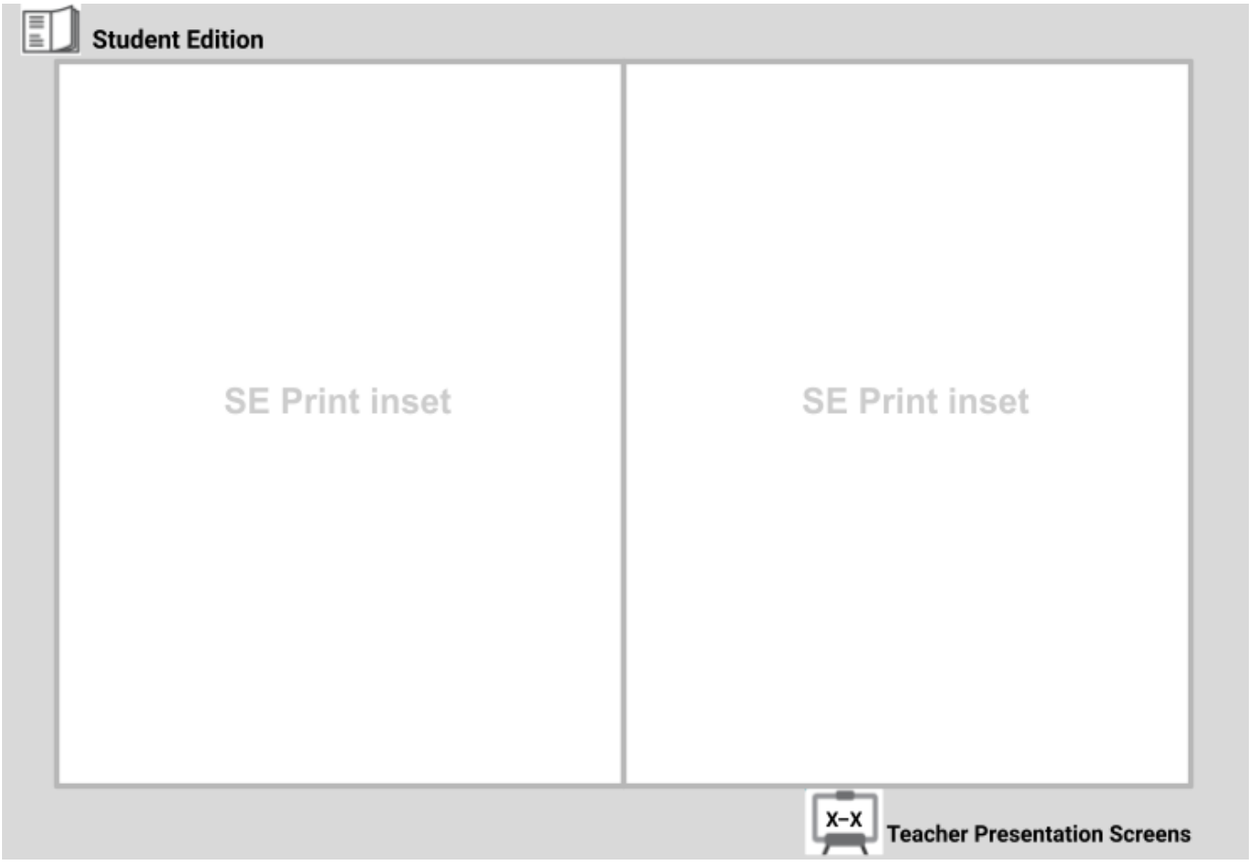
**Display** Strategy B.

**Use the Think-Pair-Share routine.** Ask, "This is another way to find the sum of 63 and 25. What do you notice about this strategy?"

**Use the Think-Pair-Share routine.** Ask:

- "How are the 2 strategies similar?"
- "How are the 2 strategies different?"

**Key Takeaway:** Say, "One way to add 2 two-digit numbers is to find the total number of tens and the total number of ones. Another way to find the sum is by starting with one number and counting on by tens and ones."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Ask a question related to the quality of the representation. | Why is their representation so hard to read? | **Support:** Ask, "What questions do you have about how this pair found the sum?" |
| **Almost there** Ask a question that could be asked about a variety of strategies or representations. | Why did they use drawings of cubes and towers? | |
| Ask a question that is specific to the pair's strategy or representation. | Where did they get 20 from? | **Stretch:** Ask, "What possible answers could the other pair have for this question?" |

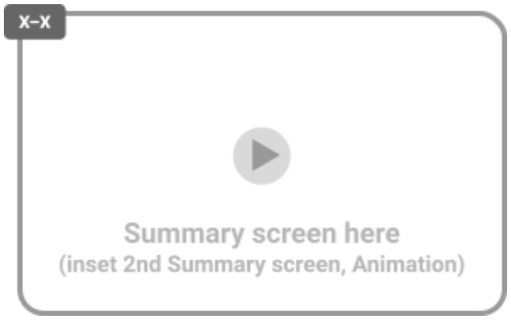
Print Lesson | Whole Class | 5 min

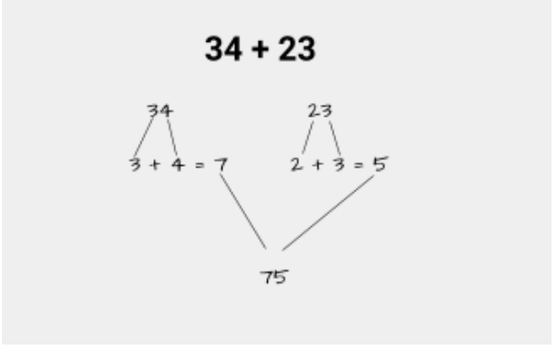
# Synthesis

**Lesson Takeaway:** Adding by place and counting on by tens and ones are two strategies for adding 2 two-digit numbers.

**Presentation Screens X–X**


X–X




**X–X Ask:**

- "How did this person find the sum?"
- "Do you agree the sum is 75? Why or why not?"
- "How would you find the sum of 34 + 23?"

**Say,** "To find the total number of tens and ones in 2 two-digit numbers, you need to add the tens from each number and the ones from each number. Then you can put the total number of tens and ones together to find the sum."

# Show What You Know (Optional)

Independent | 5 min


## Today's Goals

1. **Goal:** Add 2 two-digit numbers that are not multiples of 10.
2. **Language Goal:** Describe how another pair added 2 numbers. **(Speaking and Listening)**
3. **Language Goal:** Ask questions about how another pair added 2 numbers. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.4 |
| | 2 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 3 | 2 | NY-1.OA.1 |
| Fluency | 4 | 1 | NY-1.OA.4, NY-1.OA.6a |
| | 5–8 | 1 | NY-1.NBT.2 |

# Center Choice Time

Presentation
Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 8 – Add Within 100 Without Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add two numbers, without composing a ten, to practice strategies for addition within 100.

### Materials

- 2 centimeter cubes, two-color counters (20 for each student) **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-Unit 1.**


## Get Your Numbers in Order


**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students make and record two-digit numbers from least to greatest to apply place-value reasoning when considering the relationships between numbers.

### Materials

- number cards (0–9) **(Manipulative Kit)**
- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Greatest of Them All

Placeholder for Center Icon

**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, 1.NBT.B.3

Students create the greatest two-digit number possible to apply place-value reasoning when comparing numbers.

### Materials

- number cards (0–9) (one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

# Differentiation Use after Lesson 3

**Lesson Goal:** Add 2 two-digit numbers that are not multiples of 10.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Confuse the value of digits when adding by place value.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding Two-Digit Numbers Without Composing a Ten*
- **Lesson 3 Refresh Video**

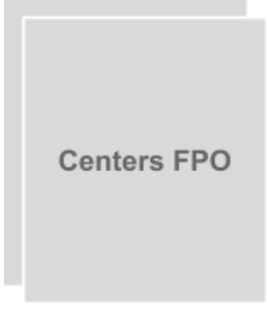

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Add by place value or count on by tens and ones to find the sum.

**Respond:**

- **Centers** | 15 min
  *Cover Up,* Stage 8
  *Get Your Numbers in Order,* Stage 1
  *Greatest of Them All,* Stage 1
- **Lesson 3 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

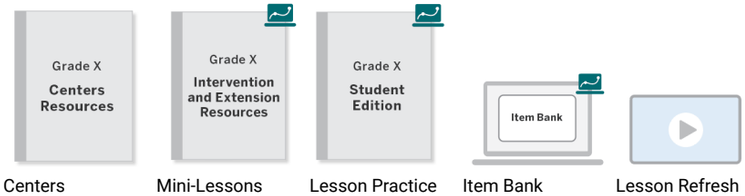
**If Students:** Use multiple strategies flexibly to find sums of two-digit numbers.

**Respond:**

- **Sub-Unit 1 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

What connections did students make between different strategies shared? What questions did you ask to help make connections more visible?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 4**

# Making Squash Butter

## Using Equations and Drawings to Represent Strategies for Finding Sums

Let's add to find the total amount of pots and jars.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Represent strategies for finding the sum of 2 two-digit numbers.
2. **Language Goal:** Explain strategies for finding the sum of 2 two-digit numbers. **(Speaking and Listening)**
3. **Language Goal:** Interpret a representation and explain how another pair found the sum of 2 two-digit numbers. **(Speaking and Listening)**

Students find the sums of 2 two-digit numbers and create a representation that shows how they solved the problem. Using their representation, they explain to another pair how they found the sum. Then students interpret another pair's representation to determine how the problem was solved. These experiences provide students with opportunities to practice using precision when showing and explaining their strategies and to recognize the value in making their mathematical thinking clear in a written representation. **(MP4, MP6)**

### Prior Learning

In Lesson 3, students added 2 two-digit numbers that were not multiples of 10 for the first time.

### Future Learning

In Lesson 5, students will add one- and two-digit numbers with and without composing a 10.

## Rigor and Balance

- Students deepen their **conceptual understanding** of adding 2 two-digit numbers by explaining strategies used to solve.
- Students **apply** their understanding of place value and addition to solve problems with real-world contexts.

## Vocabulary

**Review Vocabulary**

- *equation*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP4, MP6, MP7, MP8

### Building On

**NY-1.NBT.2**

**NY-1.OA.1**

**We are a math community.**
How do you share math tools when working with a partner?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

**Standard: NY-1.NBT.4**

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions and use place-value understanding to find the sums. **(MP7, MP8)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students represent and solve a *Put Together/Take Apart, Total Unknown* story problem by adding 2 two-digit numbers. They explain to another pair how they solved, using precise language to help the other pair understand their thinking.
**Additional Prep** Prepare: *Words to Describe Addition Strategies* chart; Assemble: towers of 10 connecting cubes

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students represent and solve another *Put Together/Take Apart, Total Unknown* story problem by adding 2 two-digit numbers. Then they examine another pair's representation and use it to explain the strategy they think the pair used to solve.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how recording equations to represent each step taken to find the sum of 2 two-digit numbers can help make their thinking clear.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Cover Up, Stage 8
- Get Your Numbers in Order, Stage 1
- Greatest of Them All, Stage 1

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** connecting cubes (towers of 10 and single cubes) (optional)
- **Classroom materials:** chart paper, markers, *Words to Describe Addition Strategies* chart (teacher made)

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Fluency**

**Purpose:** Students find the sums of 2 two-digit numbers to practice place-value based strategies for addition within 100.

Presentation Screen X


| A | B |
|---|---|
| 13 + 21<br>34 | 13 + 31<br>44 |
| **C** | **D** |
| 23 + 31<br>54 | 33 + 41<br>74 |

**Why these problems?** These expressions lend themselves to finding sums by considering how the amount of tens and ones changes in each expression.

## Launch

**Use the Number Talk routine.**

X-X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X-X **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expression D.

**Ask,** "How could knowing the sum of 23 and 31 be useful for finding the sum of 33 and 41?"

**Students might say . . .**

A: 1 ten and 2 tens is 3 tens, which is 30. 3 ones and 1 one is 4 ones. 30 and 4 more ones is 34.

B: This expression is the same 13 + 21 except the second addend has one more ten. 34 plus one more ten is 44.

C: This expression is the same as 13 + 31 except the first addend has one more ten. 44 + 10 = 54.

D: This expression is the same as 23 + 31 except the addends have one more ten. 54 plus 2 more tens is 74.

Print Lesson | Pairs | 15 min

# Activity 1 How Many Pots?

**Purpose:** Students orally explain how they found the sum of 2 two-digit numbers to practice explaining how they find sums with clarity and precision.

Presentation
Screens X–X


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "One way the townsfolk decided to help was by making wazzle-squash butter. To do this, they planned to boil the squash, scoop out the flesh, mash it, and then cook it until it becomes creamy and smooth. As they prepared to make the butter, they realized they needed to gather a lot of pots to boil the squash."

**Provide** access to connecting cube towers of 10 and single cubes.

**Read aloud** Problems 1 and 2.

**Note**: After students have completed Problem 1, have them meet with another pair to complete Problem 2.

**[L] MLR 2: Collect and Display**

- As students complete Problem 2, collect the language they use, such as "counting on by tens and ones" and "finding the total amount of tens and the total amount of ones."
- Add language students use to the *Words to Describe Addition Strategies* chart and remind them to continue to refer to and use the display during class discussions. Consider including examples next to each strategy.

**Note:** Keep this chart displayed for the remainder of the unit.

### Materials

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Classroom materials:**

- Use chart paper and markers to prepare and add language to the *Words to Describe Addition Strategies* chart during the Launch.

**Short on time?** Consider having students respond to Problem 2 with their partner, rather than with another pair.

## Monitor

Monitor
Storyboard Art
FPO
**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "How is this problem like problems you have solved before?"
- **[EL] Multilingual/English Learners:** Encourage active listening by inviting pairs to restate what the other pair shares in their own words before explaining how they solved Problem 1.

## Connect

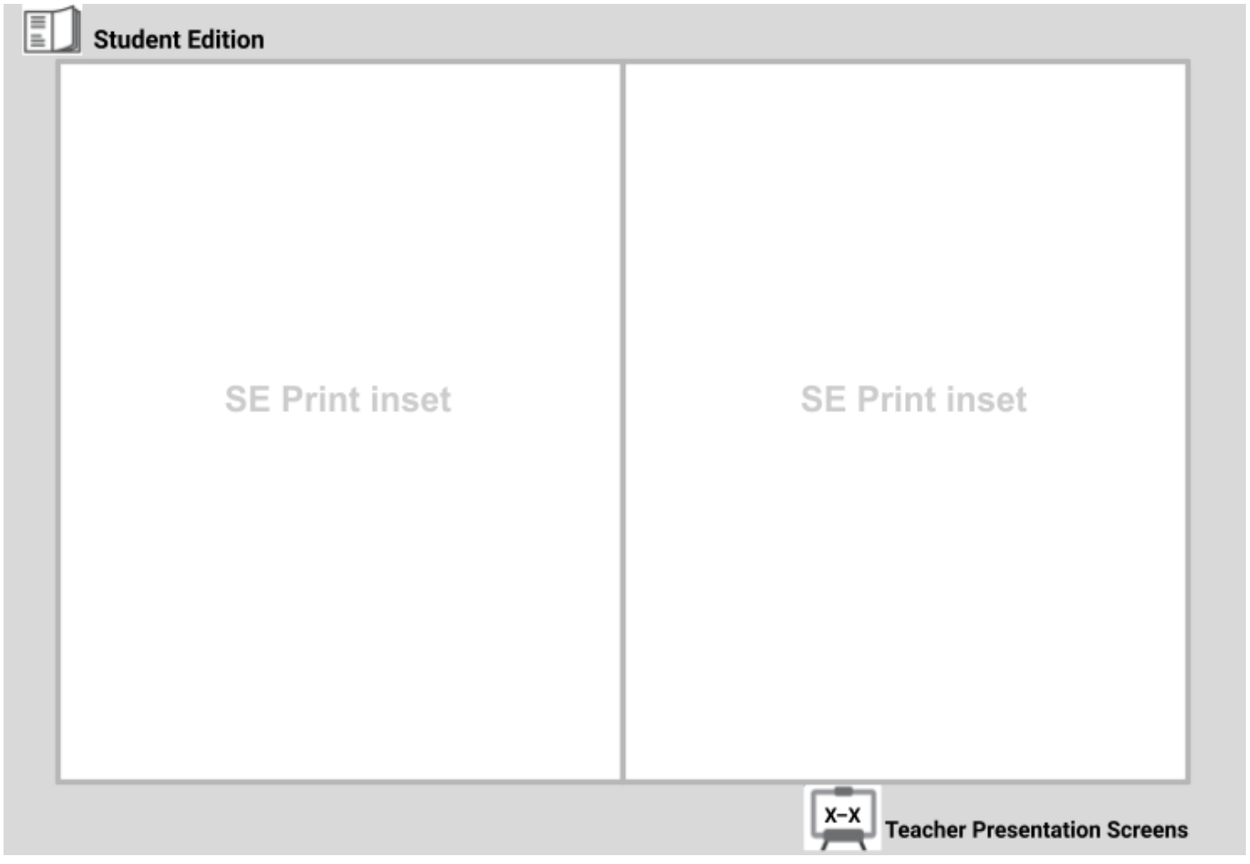
Connect
Storyboard Art
FPO

X–X **Display** Problem 1.

**Invite a pair to share** their response to Problem 2. Select a pair that explained their steps clearly, using Row 3 in the *Differentiation* table as a guide.

**Use the Think-Pair-Share routine.** Ask, "Think about how this pair explained how they added 34 and 61. What helped you understand how they found the sum?"

**Key Takeaway:** Say, "One way to help others understand how you solved a problem is to explain each step in the order that you solved."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Describe or read their representation. | It says 4 plus 5 equals 9. Then it says 9 tens and 5 ones is 95. | **Support:** Ask, "What else could you say to this pair to help them understand everything you did to find the sum?" |
| Explain what they did to find the sum. | We found the total amount of the tens and the total amount of ones. Then we wrote the number. | **Strengthen:** Ask, "What else could you say to this pair to help them understand how you found the sum?" |
| Explain what they did to find the sum and how they did it. | We found the total amount of tens by adding 4 and 5. Then we found the total amount of ones by adding 4 and 1. Then we wrote the number so that there was a 9 in the tens place and a 5 in the ones place. | **Stretch:** Ask, "What do you think should be included in representations to make them clear for others to understand?" |

Print Lesson | Pairs | 15 min

# Activity 2 How Many Jars?

**Purpose:** Students use a written representation to explain how they found the sum of 2 two-digit numbers to practice creating representations that are precise and clear.

**Presentation**
**Screens X–X**

## Launch


**Materials**
**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

X–X **Say,** "After the townsfolk collected pots to boil the wazzle-squash, they gathered jars to store the squash butter. Sealing the butter into jars would help it stay fresh for longer."

**Read aloud** Problems 3 and 4.

**Say,** "After solving Problem 3, meet with another pair to complete Problem 4. As you complete Problem 4, you will need to look at and think about their representation and then explain to them how you think they solved the problem."

**Provide** access to connecting cube towers of 10 and single cubes.

[A] **Accessibility: Conceptual processing** For students who need support connecting symbols to concrete objects, provide access to connecting cubes so that they can recreate any drawings that were made using the cubes.

## Monitor


After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "How have you solved problems like this in the past?"

## Connect


X–X **Display** 2 or 3 examples of student work from Problem 3. Select a variety of examples that each clearly show the steps taken to solve. These may include circles, lines, arrows, or equations to represent each step.

**Use the Think-Pair-Share routine.** For each example of student work displayed, ask, "What did this pair include in their work to make their thinking clear?"

**Key Takeaway:** Say, "One way to help others understand how you solved a problem is to make a clear representation that shows the steps you used."

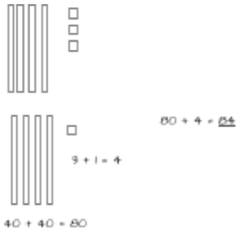
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Create a representation that shows part of the strategy they used to solve the problem. | 40 + 40 = 80<br>41 + 43 = 84<br>or<br>  | **Support:** Ask, "What else could you add to your representation to help others understand how you found the sum?" |
| Create a representation that shows each part of the strategy they used to solve the problem. |  | **Strengthen:** Ask, "What questions could someone have when interpreting this representation?" |

Print Lesson | Whole Class | 5 min

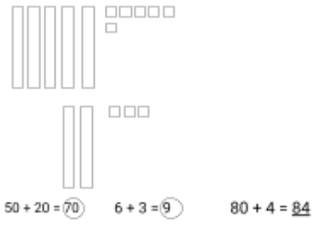
# Synthesis

**Lesson Takeaway:** When creating a representation to describe the strategy used to find the sum of 2 numbers, it is helpful to show each mathematical step.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)




**X–X Ask,** "What is included in this representation to make each step clear?"

**Say,** "There is an equation that represents the total number of tens and another equation that represents the total number of ones. Writing more than one equation can help to clearly show the steps taken to find the sum of 2 two-digit numbers."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Represent strategies for finding the sum of 2 two-digit numbers.
2. **Language Goal:** Explain strategies for finding the sum of 2 two-digit numbers. **(Speaking and Listening)**
3. **Language Goal:** Interpret a representation and explain how another pair found the sum of 2 two-digit numbers. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.4, NY-1.OA.1 |
| | 2–5 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 6 | 2 | NY-1.OA.1 |
| | 7 | 1 | NY-1.OA.4 |
| | 8–11 | 1 | NY-1.NBT.2 |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 8 – Add Within 100 Without Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add two values, without composing a ten, to practice strategies for addition within 100.

**Materials**

- 2 centimeter cubes, two-color counters (20 per student) **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-Unit 1.**

## Get Your Numbers in Order


**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students make and record two-digit numbers from least to greatest to apply place-value reasoning when considering the relationships between numbers.

**Materials**

- number cards (0–9) **(Manipulative Kit)**
- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-Unit 3.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## Greatest of Them All

Placeholder for Center Icon

**Stage 1 – Two-Digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students create the greatest two-digit number possible to apply place-value understanding when comparing numbers.

### Materials

- number cards (0–9) (one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-Unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

# Differentiation Use after Lesson 6

**Lesson Goal:** Represent strategies for finding the sum of 2 two-digit numbers.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Create a representation that shows a partial strategy used to find a sum.

**Respond:**

- **Mini-Lesson** | 15 min
  *Finding Sums Using Representations and Drawings*
- **Lesson 6 Refresh Video**

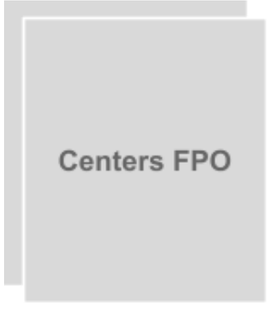

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Create a representation that shows each part of a strategy used to find a sum, including drawings, circles, lines, or arrows.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 8
  *Get Your Numbers in Order*, Stage 1
  *Greatest of Them All*, Stage 1
- **Lesson 6 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Create a representation that shows each part of a strategy used to find a sum, including an equation for each step.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 5**

# Appreciating the Helpers

## Composing a Ten When Adding

Let's add to help Carmina plan a treat for the town helpers.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add a two-digit number and a one-digit number, with and without composing a ten.
2. **Language Goal:** Explain how to know if a new ten has been composed. **(Speaking and Listening)**

Students add two-digit and one-digit numbers that require composing a ten for the first time. First, they add a two-digit and one-digit number within the context of an *Add To, Result Unknown* story problem and recognize that it is sometimes necessary to compose a new ten when adding. Then students add two-digit numbers and one-digit numbers without the context of a story problem and discuss strategies for determining if a new ten has been composed. Note: *Composing* and *decomposing* are not student-facing terms in Grade 1; this language will be formally introduced to students in Grade 2. **(MP2, MP7)**

### Prior Learning

In Lesson 4, students added 2 two-digit numbers without composing a ten. They verbally explained how they found the sums and showed their thinking using drawings and equations.

### Future Learning

In Lesson 6, students will be introduced to a *Tens and Ones Mat*, which they will use to physically model adding two-digit numbers and one-digit numbers and notice when a ten can be composed.

## Rigor and Balance

- Students build **conceptual understanding** of adding within 100 when a ten is composed.
- Students **apply** their understanding of addition to solve *Add To, Result Unknown* story problems.

## Vocabulary

**Review Vocabulary**

- *addend*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP2, MP7

### Building On

**NY-1.NBT.2**

**NY-1.OA.1**

**NY-1.OA.6a**

**We are a math community.**
In what ways do you help others know they are an important part of our math community?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard: NY-1.NBT.4

## Warm-Up Whole Class | 10 min

Students use the **How Many Do You See?** routine, in which they look at and describe the different ways they see different arrangements of two-digit numbers represented with counters and 10-frames. **(MP7)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students solve an *Add To, Result Unknown* story problem to recognize that sometimes it is necessary to compose a new ten when adding a two-digit and one-digit number. .

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students solve 2 problems, 1 that involves composing a new ten and 1 that does not and explain how they know in which problem a ten was composed. They recognize that there are different ways to know if a new ten has been composed.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how sometimes it is necessary to compose a ten when finding the sum of a two-digit and one-digit number.

SE Print inset

Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Target Numbers, Stage 1*, in which they add one-digit numbers to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeILy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

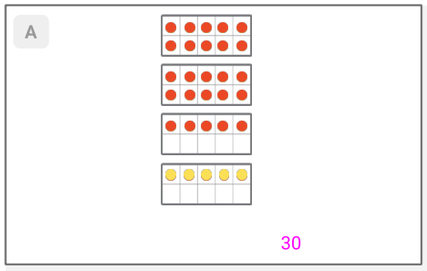
- **Manipulative Kit:** 10-frames (optional), connecting cubes (optional)

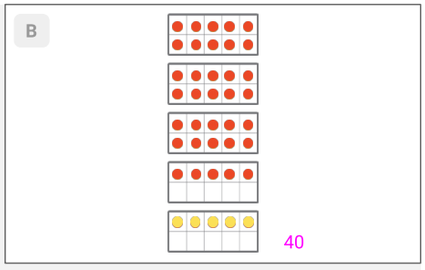
Print Lesson | Whole Class | 10 min

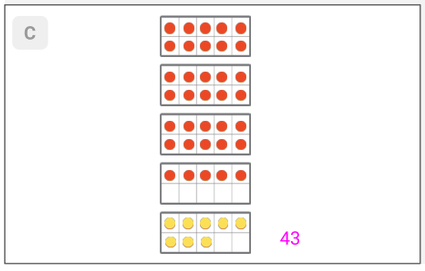
# Warm-Up How Many Do You See?

**Purpose:** Students determine the total number of red and yellow counters presented in 10-frame images to practice subitizing and grouping strategies.

Presentation Screen X


## Launch

**Use the How Many Do You See? routine.**

X-X **Flash** Image A for 2–5 seconds, and ask, "How many do you see?"

**Say,** "Give me a signal when you have an answer."

**Display** the image again, leaving it displayed to discuss.

## Connect

X-X **Record** 2 or 3 students' responses, and ask, "How did you see them?"

**Repeat** for each image, spending the most time discussing Image C.

**Ask,** "How might you represent Image C with an addition expression?"

**Students might say . . .**

A: I see 2 full 10-frames, so that is 20. I see 5 red and 5 yellow that make another ten, so there are 30 counters.

B: This image has 1 more full 10-frame than Image A, so it is 10 more than 30. 30 + 10 = 40.

C: The 3 full 10-frames are 30. Then I put 5 red and 5 yellow together to make another 10. That's 40. Then there are 3 more yellow counters, so the total is 43.

Print Lesson | Pairs | 15 min

# Activity 1 How Many Wazzle-squashes?

**Purpose:** Students solve an *Add To, Result Unknown* story problems to notice that sometimes a ten is composed when adding a two-digit number and one-digit number.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

**X–X Say:**

- "After watching people work together to clean up the town, Carmina wanted to do something to show the helpers they are appreciated. She knew exactly who to turn to for help — Carmina's Aunt Marta was well known in Faraway for making delicious and nutritious treats with unique ingredients."
- "Carmina and Aunt Marta decide to make bags of wazzle-squash crisps for the helpers. Carmina and her aunt needed to find how many wazzle-squashes they had so they could make sure they had enough to make the crisps."

**Read aloud** the directions and Problem 1.

**Provide** access to connecting cubes and double 10-frames.

**Materials**

**Manipulative Kit:**
Provide students with access to connecting cube towers of 10 and single cubes and double 10-frames (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**X–X If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What part of the story could you represent first to help you solve?"

**[A] Accessibility: Executive functioning** Guide processing by inviting students to brainstorm a strategy with a partner before solving.

## Connect

Connect Storyboard Art FPO

**X–X Invite a pair to share** their strategy for Problem 1. Select a pair using Row 3 of the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask, "How is this story problem different from others you have solved?"

**Key Takeaway:** Say, "When adding a two-digit number and a one-digit number, sometimes it is necessary to make a new 10."

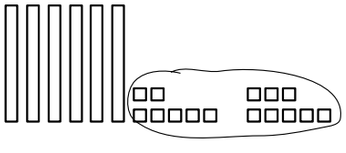
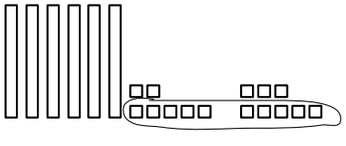
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count on by 1. | 67 (68) (69) (70) (71) (72) (73) (74) (75)<br>equation: 67 + 8 = 75 | **Strengthen:** Ask, "What is another way you might find the sum without counting on?" |
| Add by place. |  <br>7 + 8 = 15<br>60 + 15 = 75<br>equation: 67 + 8 = 75 | **Strengthen:** Ask, "Tell me about your strategy. How was it helpful to add all of the ones first?" |
| Make a ten with 10 ones and then add the remaining ones. |  <br>60 + 10 + 5 = 75<br>equation: 67 + 8 = 75 | **Strengthen:** Ask, "Tell me about your strategy. How was it helpful to make a new ten?" |

Print Lesson | Pairs | 15 min

# Activity 2 A New Ten?

**Purpose:** Students solve 2 addition problems, 1 that involves composing a ten and 1 that does not, to consider ways to know that a ten has been composed.

**Presentation**
**Screens X–X**

## Launch

Launch Storyboard Art FPO

X–X **Read aloud** the directions for Problems 2 and 3. Have students work for 4–5 minutes.

**Provide** access to connecting cubes and double 10-frames.

**Read aloud** Problem 4. Have pairs discuss for 1–2 minutes.

**Materials**
**Manipulative Kit:**
Provide students with access to connecting cube towers of 10 and single cubes and double 10-frames (optional).

**Short on time?** Consider modifying the activity so that students discuss Problem 4 as a class during the Connect, rather than as partners during the Monitor.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you notice about the numbers in this equation?"
- Ask , "What math tools or drawings could you use to represent the addends?"

## Connect

Connect Storyboard Art FPO

X–X **Invite pairs to share** their responses for Problem 4, while displaying their thinking for Problem 2. Select students using Rows 2 and 3 of the *Differentiation* table.

MLR8: Discussion Supports — Active Listening
Encourage students to discuss how 1 or both pairs determined that they made a new ten by restating another pair's idea in their own words, before adding their own ideas to the discussion.

**Key Takeaway:** Say, "There are different ways to know if you made a new ten when adding a two-digit number and a one-digit number."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| State that they made a new 10 in Problem 2. | I made a new ten in Problem 2. | **Support:** Ask, "How do you know you made a new ten?" |
| Explain that they made a new ten in Problem 2 by comparing the amount of tens in the addends to the amount of tens in the sum. | I made a new ten in Problem 2. I know this because there are 3 tens in each addend which makes 6 tens. In the sum, there are 7 tens. | **Stretch:** Ask, "How could you show someone where the new ten is to help them understand?" |
| Explain that they made a new ten in Problem 2 based on the number of ones in the addends. | I made a new ten in Problem 2. I know this because 7 ones and 8 ones makes 15 ones, which includes a new ten. | |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When adding a two-digit number and a one-digit number, sometimes it is necessary to compose a ten.

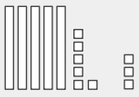
**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)

56 + 3 = 59



56 + 7 = 63

X–X **Use the Think-Pair-Share routine.** Ask, "Both equations have an addend of 56. In the first equation, the sum has 5 tens. In the second equation, the sum has 6 tens. Why do the sums have different numbers of tens?"

**Say,** "When adding two-digit and one-digit numbers, sometimes you will make a new ten. When the addends have 10 or more ones, you can group them together to make a new ten."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add a two-digit number and a one-digit number, with and without composing a ten.
2. **Language Goal:** Explain how to know if a new ten has been composed.. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.4 |
| | 2 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 3 | 2 | NY-1.OA.1 |
| | 4 | 1 | NY-1.OA.4 |
| | 5–8 | 1 | NY-1.NBT.2 |

Print Lesson | Pairs | 15 min |

# Introducing the Center
## Target Numbers, Stage 1

**Purpose:** Students add one-digit numbers to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

**X–X** **Display** the Center materials, Directions, and 2 Recording Sheets.

**Demonstrate** how to play the Center, *Target Numbers, Stage 1* with a student as a partner. While demonstrating:

- **Say,** "You will play *Target Numbers* today."
- **Say,** "First, I will flip over a card and record it on my recording sheet." Record the number.
- **Use the Think-Pair-Share routine.** Ask, "What is the sum?" Record the sum.
- **Say,** "Then I will use the sum as the starting number for my next equation." Record the sum as the next starting number.
- **Say,** "Then my partner will flip over a card, record it on their recording sheet, and find and record the sum." Have your partner follow the steps.
- **Ask,** "What should my partner record as the starting number for their next equation?"
- **Say,** "You and your partner will take turns completing the equations and finding the sums. The player with the final sum closer to 95 wins."

### Materials

**Manipulative Kit:**

- Distribute one set of number cards (1–9) to each pair.

**Centers Resources:**

- Display the Directions and Recording Sheet during the Launch.
- Distribute one Recording Sheet to each student.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** strategies students use to find sums including counting on, adding by place, decomposing to make a ten, or a combination of these strategies. Note if students recognize when they composed a ten to find the sum.

## Connect

Connect
Storyboard Art
FPO

**X–X** **Display** 85 + 7.

**Ask,** "What is the sum? How do you know?"

**Invite students to share** the strategies they used to solve.

**Record** drawings or equations to make student thinking visible.

**Ask,** "Did you need to make a new ten? How do you know?" Encourage students to point to parts of the recorded drawings and equations as they explain.

**Invite pairs to share** equations in which it was necessary to make a new ten.

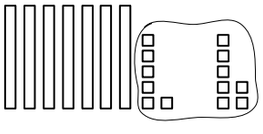
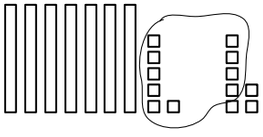
**Key Takeaway:** Say, "When adding one-digit numbers to two-digit numbers to try to get close to a target number, sometimes you have to make a new ten."

**Centers Resources**

Center Direction Sheet

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . (76 + 7 = __) | Provide support . . . |
|---|---|---|
| Count on. | 76, 77, 78, 79, 80, 81, 82, 83 | Ask, "How could you find the sum without counting on?" |
| Add by place. |  <br>6 + 7 = 13<br>70 + 13 = 83 | Ask, "This sum has a new ten. Where do you see the new ten in your work?" |
| Make a ten with 10 ones and then add the remaining ones. |  <br>70 + 10 = 80<br>80 + 3 = 83 | Ask, "How could you show your thinking with drawings or equations to help someone else understand your thinking?" |

# Differentiation Use after Lesson 5

**Lesson Goal:** Add a two-digit number and a one-digit number, with and without composing a ten.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Find a sum that is different from the actual sum.

**Respond:**

- **Mini-Lesson** | 15 min
  *Making Ten to Solve Addition Problems*
- **Lesson 5 Refresh Video**

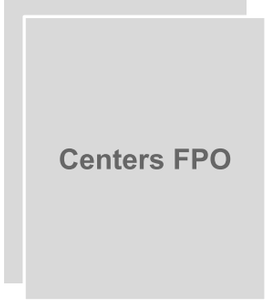

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Find a sum in which it is necessary to compose a ten by counting on by 1.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 8
  *Get Your Numbers In Order*, Stage 1
  *Greatest of Them All*, Stage 1
- **Lesson 5 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Find a sum in which it is necessary to compose a ten by adding by place or by making a ten with 10 ones and then adding the remaining ones.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

Reflect on who participated in math class today. What assumptions are you making about those who did not participate? How can you leverage each of your students' ideas to support them in being seen and heard in tomorrow's math class?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 6**

# Exploring a New Math Tool

## Using a Tens and Ones Mat to Compose a Ten When Adding

Let's try out a tool for making a ten when adding.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Recognize that in adding a two-digit and a one-digit number, sometimes it is necessary to compose a ten.
2. **Goal:** Use concrete tools to add a two-digit and a one-digit number, composing a ten when necessary.
3. **Language Goal:** Explain how the *Tens and Ones Mat* can be a useful tool for determining if it will be necessary to compose a ten when adding. **(Speaking and Listening)**

Students are introduced to a place value mat, called *Tens and Ones Mat,* as a tool for adding within 100. They represent addends as amounts of tens and ones on the Mat to notice when there are enough ones to compose a ten. They physically combine 10 ones to compose a ten and move it to the tens column on the Mat. Although some students may be able to find sums using drawings, equations, or mental strategies, all students will work with the physical tools in this lesson. The physical act of unitizing 10 ones using cubes and the Mat provides a concrete experience that all students can build on and make connections to as they explore increasingly abstract strategies for finding sums within 100. The *Tens and Ones Mat* and cubes should be made available for students for the remainder of the unit. **(MP5, MP7)**

### Prior Learning

In Lesson 5, students recognized that sometimes it is necessary to compose a ten when adding a two-digit number and a one-digit number.

### Future Learning

In Lesson 7, students will continue adding two-digit and one-digit numbers, relating their work with addition on the *Tens and Ones Mat* to expressions and equations. They will also explore how to use sums of 10 to make the next ten when adding.

## Rigor and Balance

- Students build **conceptual understanding** of place-value based strategies for adding within 100.
- Students **apply** the understanding that a group of 10 ones can be composed to make a ten.

## Vocabulary

**Review Vocabulary**

- *addend*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP5, MP7

**Building On**

**NY-1.NBT.2**

**NY-1.OA.6**

**We are a math community.**
Carmina talked to her aunt when she wanted to treat the helpers. Who can you talk to about your ideas?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard: NY-1.NBT.4

## Warm-Up Whole Class | 10 min

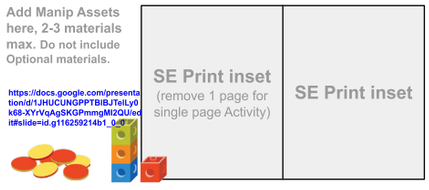
Students use the **Notice and Wonder** routine to share what they notice and wonder about an image of a two-digit number represented on the *Tens and Ones Mat*, which is then introduced as a tool for addition.


Screens X–X

## Activity 1 Pairs | 15 min

Students use cubes and the *Tens and Ones Mat* to find the sum of a two-digit and one-digit number. They share strategies and discuss how the structure of the Mat shows when it is necessary to compose a ten.

**Additional Prep** Assemble: towers of 10 (9 towers for each pair)

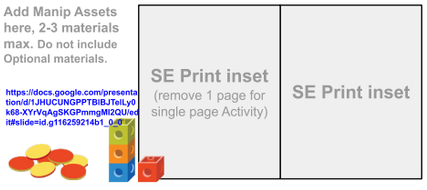



Screens X–X

## Activity 2 Pairs | 15 min

Students find more sums of two-digit and one-digit numbers using cubes and the *Tens and Ones Mat*. They notice whether they can make a ten with the given addends and then find the sums by physically composing a ten when it is necessary. Students notice that there is more than one way to compose a ten.

**Additional Prep** Assemble: towers of 10 (9 towers for each pair)




Screens X–X

## Synthesis Whole Class | 5 min

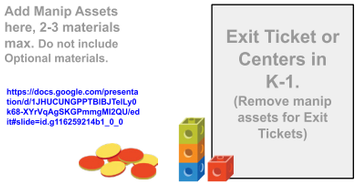
Students review and reflect on how grouping ones in an organized way when adding can help them know whether or not a ten will be composed when finding a sum.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice finding sums within 100 and deepen place value understanding.

- Cover Up, Stage 8
- Get Your Numbers In Order, Stage 1
- Target Numbers, Stage 1




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Graphic Organizer PDF, *Tens and Ones Mat*
- **Manipulative Kit:** connecting cubes

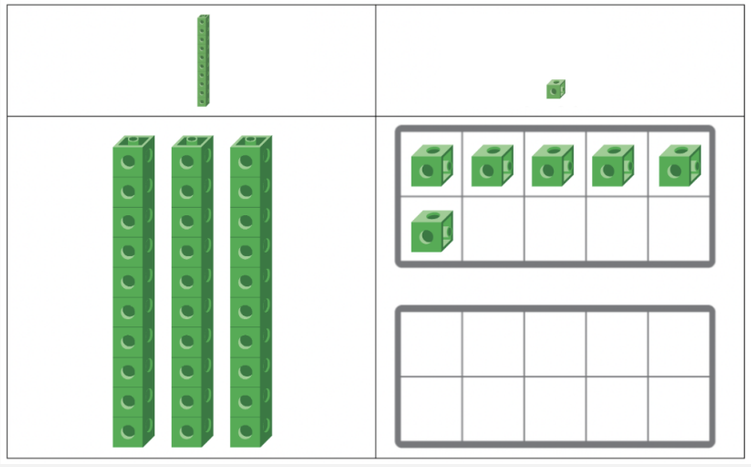
Print Lesson | Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students examine an image of a two-digit number represented on the *Tens and Ones Mat* to introduce the Mat as a new tool that students will use for addition within 100.

Presentation Screen X


## What do you notice? What do you wonder?



## Launch

X-X **Display** the image.

**Use the Notice and Wonder routine.**

**Ask,** "What do you notice? What do you wonder?"

**Use the Think-Pair-Share routine.**

## Connect

X-X **Record** students' responses as they share.

**Say,** "This is a new tool called a *Tens and Ones Mat*."

**Ask** (if not yet mentioned during discussion):

- "What do you notice about how the Mat is organized?"
- "What number is represented on this Mat? How do you know?"

**Say,** "The Mat has a space for tens on the left side and a space for ones on the right side. You will use this Mat in today's lesson to add two-digit numbers to one-digit numbers."

**Students might say . . .**

I notice one side has tens and one side has ones.

I notice there are 3 tens and 6 ones.

I wonder why one of the 10-frames is empty.

I wonder if we will use this tool for adding two-digit and one-digit numbers.

Print Lesson | Pairs | 15 min

# Activity 1 Cubes on the Mat

**Purpose:** Students use a new tool, the *Tens and Ones Mat*, to physically represent adding a two-digit number and a one-digit number and they recognize when it is necessary to compose a ten.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "Represent 48 on your *Tens and Ones Mat* using only one color of cubes."

**Display** the *Tens and Ones Mat*, and have students explain how they represented 48. Place 4 towers in the tens column and 8 single cubes in the top 10-frame in the ones column. Have students adjust their Mats to match the display.

**Record** the expression 48 + 6.

**Say,** "Let's explore how to use the *Tens and Ones Mat* as a tool for adding."

**Read aloud** Problem 1.

### Materials

**Lesson Resources:**
- Display and distribute the Graphic Organizer PDF, *Tens and Ones Mat* to each pair.

**Manipulative Kit:**
- Distribute connecting cubes to each pair.

## Monitor

Monitor Storyboard Art FPO

****NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you notice about the ones on the Mat?"
- Ask, "How might you move some of the cubes to help you find the sum?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** strategies they used to find the sum of 48 + 6. Select and sequence their responses by having students share in the order shown in the *Differentiation* table.

**MLR8: Discussion Supports – Pressing for Details**

As students share, press for details in their reasoning. For example:
- If a student says, "We moved 2 cubes from the bottom 10-frame to the top 10-frame." or "We joined 10 ones to make another tower of 10." . . .
- Press for details by asking, "Why did you do that?"
- **[EL] Multilingual/English Learners:** Use wait time to allow students to formulate a response. Consider having students rehearse with a partner before sharing with the whole class.

**Say,** "Some of you noticed that for 48 + 6, there are enough ones to fill one of the 10-frames on the Mat. So the *Tens and Ones Mat* helps you see that this sum will have a new ten. If you have not already, join 10 ones on your Mat to make a new tower of 10 and then move it to the tens side of the Mat."

**Use the Think-Pair-Share routine** as students complete Problem 2.

**Key Takeaway:** Say, "When adding, it can be helpful to represent in a way that helps you see if there are enough ones to make a new ten. If you need to make a new ten, it can also be helpful to show the new ten in the representation."

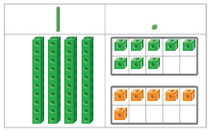
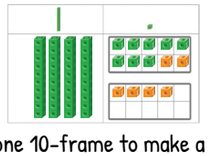
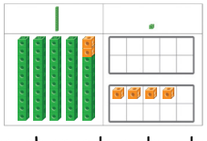
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Represent both addends separately and use a counting strategy to find the sum. |  48, 49, 50, 51, 52, 53, 54 | **Strengthen:** Ask, "How can you use the 10-frames on the Mat to help you find the sum?" |
| Fill one of the 10-frames to find the sum. |  We filled one 10-frame to make a new ten, so there are 5 tens and 4 ones. That is 54. | **Strengthen:** Ask, "Why did you choose to fill the top 10-frame?" |
| Connect 10 single cubes to make a tower of 10 to find the sum. |  We had enough ones to make a ten, so we moved the ten to the tens side. The sum is 5 tens and 4 ones. That is 54. | **Strengthen:** Ask, "Why did you join the 10 of the ones to make a tower?" |

Print Lesson | Pairs | 15 min

# Activity 2 Can You Make a New Ten?

**Purpose:** Students find sums of two-digit and one-digit numbers using cubes and the *Tens and Ones Mat* to deepen their understanding of when and how a ten is composed.

Presentation
Screens X–X

## Launch

Launch Storyboard Art FPO

X–X **Say,** "You are going to continue using cubes and the *Tens and Ones Mat* to find the value of addition expressions."

**Read aloud** the directions.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on their response for row 1 before moving them on to rows 2–3.

### Materials

**Lesson Resources:**
- Display and distribute the Graphic Organizer PDF, *Tens and Ones Mat* to each pair.

**Manipulative Kit:**
- Distribute connecting cubes to each pair.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you need to do first?"
- Ask, "How can you use the *Tens and Ones Mat* to see if you can make a new ten?"

## Connect

Connect Storyboard Art FPO

X–X **[L]** This Connect is structured using the *MLR7: Compare and Connect* routine.

**Invite students to share** responses for the expression 25 + 7, focusing on how they used the structure of the *Tens and Ones Mat* to decide if they could make a ten. Select and sequence their responses using rows 2 and 3 in the *Differentiation* table, and have students physically demonstrate composing a ten to find the sum.

**Use the Think-Pair-Share routine.** Ask:

- "How are these strategies alike?"
- "How are they different?"
- **[EL] Multilingual/English Learners:** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing.

**Say** (if not yet mentioned during discussion), "You could choose to break apart the 7 to make a ten with 5 and 5 or you could A.choose to break apart the 5 to make a ten with 7 and 3."

**Key Takeaway:** Say, "When you need to make a new ten to find the sum of a two-digit number and one-digit number, you can break apart either one of the addends to make the new ten.."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Represent the expression and find the sum, but do not recognize that a ten is composed. |  5 plus 7 equals 12. 20 plus 12 equals 32. | **Support:** Ask, "You added the ones first and got 12. How would you represent 12 with towers and cubes? Did you make a new ten?" |
| Find the sum by decomposing the 7 ones into 5 and 2 to make a ten. |  I broke 7 into 5 and 2. I used 5 and 5 to make a ten. 3 tens and 2 ones is 32. | **Stretch:**Ask, "What equations could you write to show how you used the Mat to find the sum?" |
| Find the sum by decomposing the 5 ones into 3 and 2 to make a ten. |  I broke apart the 5 from 25 into 2 and 3. I used 7 ones and 3 ones to make a ten. 3 tens and 2 ones is 32. | |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When adding a two-digit and one-digit number, grouping the ones in an organized way helps to determine if there are enough ones to compose a ten, and to think about how to decompose the ones to make a ten when it is necessary.

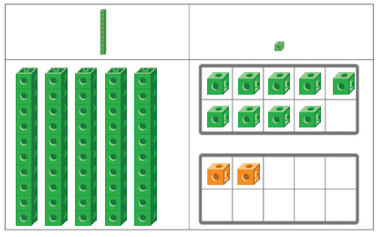
**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)

59 + 2



X–X **Ask,** "Will this sum have a new ten? How do you know?"

**Say,** "A student said they can find the sum by counting on 2 more from 59 to get 61, so they did not make a new ten."

**Ask,** "How would you use the *Tens and Ones Mat* to help this student understand that the sum does have a new ten?"

**Say,**

- "One way to show that a new ten has been made is by moving one of the 2 orange cubes to join the 9 green cubes to show 10 ones and 1 one."
- "You will continue to explore adding two-digit and one-digit numbers."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Recognize that in adding a two-digit and a one-digit number, sometimes it is necessary to compose a ten.
2. **Goal:** Use concrete tools to add a two-digit and a one-digit number, composing a ten when necessary.
3. **Language Goal:** Explain how the *Tens and Ones Mat* can be a useful tool for determining if it will be necessary to compose a ten when adding. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 4 | 2 | NY-1.OA.1 |
| Fluency | 5, 6 | 1 | NY-1.OA.4, NY-1.OA.6a |
| | 7–10 | 1 | NY-1.NBT.2 |

UNIT 5 | **LESSON 6**

# Exploring a New Math Tool

## Using a Tens and Ones Mat to Compose a Ten When Adding

Let's try out a tool for making a ten when adding.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Recognize that in adding a two-digit and a one-digit number, sometimes it is necessary to compose a ten.
2. **Goal:** Use concrete tools to add a two-digit and a one-digit number, composing a ten when necessary.
3. **Language Goal:** Explain how the *Tens and Ones Mat* can be a useful tool for determining if it will be necessary to compose a ten when adding. **(Speaking and Listening)**

Students are introduced to a place value mat, called *Tens and Ones Mat,* as a tool for adding within 100. They represent addends as amounts of tens and ones on the Mat to notice when there are enough ones to compose a ten. They physically combine 10 ones to compose a ten and move it to the tens column on the Mat. Although some students may be able to find sums using drawings, equations, or mental strategies, all students will work with the physical tools in this lesson. The physical act of unitizing 10 ones using cubes and the Mat provides a concrete experience that all students can build on and make connections to as they explore increasingly abstract strategies for finding sums within 100. The *Tens and Ones Mat* and cubes should be made available for students for the remainder of the unit. **(MP5, MP7)**

### Prior Learning

In Lesson 5, students recognized that sometimes it is necessary to compose a ten when adding a two-digit number and a one-digit number.

### Future Learning

In Lesson 7, students will continue adding two-digit and one-digit numbers, relating their work with addition on the *Tens and Ones Mat* to expressions and equations. They will also explore how to use sums of 10 to make the next ten when adding.

## Rigor and Balance

- Students build **conceptual understanding** of place-value based strategies for adding within 100.
- Students **apply** the understanding that a group of 10 ones can be composed to make a ten.

## Vocabulary

**Review Vocabulary**

- *addend*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP5, MP7

**Building On**

**NY-1.NBT.2**

**NY-1.OA.6**

**We are a math community.**
Carmina talked to her aunt when she wanted to treat the helpers. Who can you talk to about your ideas?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

Placeholder for Center Divider and Instructions Sheet.

Placeholder for Center Divider and Instructions Sheet.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Target Numbers

Placeholder for Center Icon

**Stage 1 – Add Ones**
**Pairs** | **15 min** | NY-1.NBT.4

Students add one-digit numbers to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

Placeholder for Center Divider and Instructions Sheet.

# Differentiation Use after Lesson 6

**Lesson Goal:** Use concrete tools to add a two-digit and a one-digit number, composing a ten when necessary.

## Support

Provide targeted intervention for students by using these resources.

**If Students:** Find sums using concrete tools, but do not recognize when a ten is composed.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding With Composing a Ten Using a Place Value Mat*
- **Lesson 6 Refresh Video**

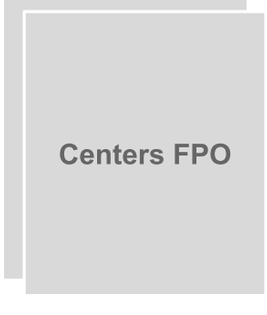

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** Find sums using concrete tools by decomposing the ones to compose a ten.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 8
  *Get Your Numbers in Order*, Stage 1
  *Target Number*, Stage 1
- **Lesson 6 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** Find sums by decomposing the ones to compose a ten, without concrete tools.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

UNIT 5 | **LESSON 7**

# Using What You Know

## Decomposing an Addend to Make a Ten

Let's use sums of 10 to add two-digit and one-digit numbers.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add a two-digit number and a one-digit number in which it is necessary to compose a ten.
2. **Language Goal:** Explain how to find the amount of ones that can be added to a two-digit number to get to the next multiple of ten. **(Speaking and Listening)**

Students apply their previous understanding of composing a ten to add within 100. Given a two-digit number, they find how many are needed to get to the next ten and explain their reasoning.Students then have an opportunity to apply and extend this thinking to add two-digit and one-digit numbers. While students can use any strategy, they discuss the usefulness of decomposing the one-digit addend to get to the next ten, and adding the remaining ones. During the Synthesis, students share equations that match a visual representation of this strategy,to support them in making connections to more abstract representations. **(MP5, MP7, MP8)**

### Prior Learning

In Lesson 6, students added two-digit and one-digit numbers using the *Tens and Ones Mat* to notice that they could decompose the ones in either addend to make a ten when finding sums.

### Future Learning

In Lesson 8, students will find unknown addends and make generalizations about how to know, before adding, if a ten will be composed.

## Rigor and Balance

- Students develop their **conceptual understanding** of place-value based strategies for adding within 100.
- Students **apply** their knowledge of sums of 10 to add within 100.

## Vocabulary

**Review Vocabulary**

- *addend*
- *digit*
- *sum*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

*Also Addressing*: NY-1.OA.6a

**Mathematical Practices:** MP5, MP7, MP8

**Building On**

| | |
|---|---|
| **NY-1.NBT.2** | |

**We are a math community.**
How can you show someone you value their ideas even when their ideas are different from yours?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.NBT.4, NY-1.OA.6a

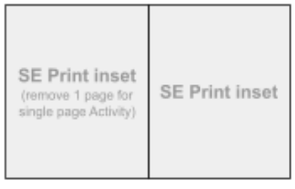
## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Pairs | 15 min

Students find the number of ones that need to be added to a two-digit number to get to the next ten and explain how they figured out how many needed to be added..
**Additional Prep Cut out:** Activity 1 PDF; **Assemble:** towers of 10




Screens X–X

## Activity 2 Pairs | 15 min

Students find the sum of a two-digit and a one-digit number using any strategy. During the Connect, they discuss the strategy of breaking apart the one-digit number to get to the next ten, then adding the remaining ones.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how to break apart the one-digit addend to make the next ten and then add on the remaining ones to find the sum of a two-digit and a one-digit number, and how this strategy can be represented with equations.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice finding sums within 100 and deepen place value understanding.

- Cover Up, Stage 8
- Get Your Numbers in Order, Stage 1
- Target Numbers, Stage 1


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** markers, *Words to Describe Addition Strategies* chart (from prior lessons)

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students find sums within 20 to practice decomposing an addend to make a ten and adding on the remaining ones.

Presentation Screen X



## Launch

**Use the Number Talk routine.**

X–X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X–X **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expression D.

**Ask,** "How could you use a sum of 10 to help you find the value of 7 + 6?"

**Students might say . . .**

A: I know 8 plus 2 equals 10.

B: 8 plus 2 equals 10, so then I added 3 more to get 13.

C: I took 1 from the 8 and added it to the 9 to make 10. Then I need to add 7 more, so 8 plus 9 equals 17.

D: I know that 7 plus 3 equals 10. So I took 3 from the 6 to make 10, and then I added 3 more to get 13.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Print Lesson | Pairs | 15 min

# Activity 1 The Next Ten

**Purpose:** Students apply their understanding of sums of 10 to identify the number of ones needed to make the next ten t.

Presentation
Screens X–X


## Launch

Launch Storyboard Art FPO

X–X

**Record** the number 74 for all to see.

**Use the Think-Pair-Share routine.** Ask, "How many more ones are needed to make a new ten? How do you know?"

**Record** 74 + 6 = 80.

**Say,** "The numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 are all amounts of tens, so these numbers are sometimes called *tens*. We can describe 80 as the *next ten* because it is the next number after 74 that is an amount of tens."

**Read aloud** Problem 1.

**Provide** access to connecting cube towers of 10 and single cubes and the *Tens and Ones Mat*.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on their responses for the first card before moving on to additional cards.

### Materials

**Lesson Resources:**
- Distribute one set of pre-cut cards from the Activity 1 PDF to each pair.
- Provide students with access to Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Short on time?** Consider having students discuss fewer cards.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask,"What are you trying to find?"
- Ask, "What tools or representations can you use to help you find how many more ones you need to get to the next ten?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Number card 63.

**Ask,** "How many ones do you need to add to get to the next ten?"

**Invite students to share** responses. Select and sequence their responses by having students share in the order shown in the *Differentiation* table.

**Record** the equations 63 + 7 = 70 and 60 + 3 + 7 = 70.

**Ask:**

- "What do you notice about these equations?"
- "Why might someone choose to think about 63 as 60 + 3?"

**Key Takeaway:** Say, "You can use sums of 10 to think about how many ones you need to add on to a number to get to the next ten."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

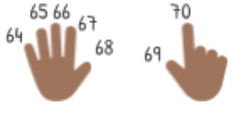
**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count on or count back. |   | **Strengthen:** Ask, "How many ones are in 63? What number can you add to 3 to make 10?" |
| Use the *Tens and Ones Mat* or a base-ten drawing to make 10. |  We need 7 ones to fill the 10-frame and get to the next ten. | **Strengthen:** Ask, "How could you use what you know about sums of 10 to find how many you need to add to 3 to make 10, without using a tool or drawing?" |
| Use a related sum of 10. | I know 3 plus 7 equals 10. So, 63 plus 7 equals 70. | **Stretch:** Ask, "If you know 63 plus 7 equals 70, how could you use that to find the missing addend for 63 + __ = 71?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Print Lesson | Pairs | 15 min

# Activity 2 To the Next Ten and Beyond

**Purpose:** Students find sums of two-digit and one-digit numbers and have the opportunity to explore decomposing the one-digit addend to make a ten.

**Presentation**
**Screens X–X**

## Launch

Launch Storyboard Art FPO

X–X

**Read aloud** the directions and Problems 2-4.

**Say,** "As you find each sum, think about how getting to the next ten might be helpful."

**Provide** access to connecting cube towers of 10 and single cubes and *Tens and Ones Mats*.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on Problem 3 before moving them on to Problem 4.

### Materials

**Lesson Resources:**
- Provide students with access to Graphic Organizer PDF, *Tens and Ones Mat* (optional).
- **Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Use markers to record student language on the *Words to Describe Addition Strategies* chart (from prior lessons) during the Connect.

.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Point to the two-digit addend and ask, "How many ones do you need to add to get to the next ten?"
- Ask, "How could you break apart the one-digit addend to make the next ten?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their responses for Problem 4 using Row 2 of the *Differentiation* table.

After responses are shared, ask the class:
- "Where in this representation do you see the 6?"
- "Why might someone choose to break apart the 6 into 3 and 3?"

**Record** language students use to describe decomposing to make a ten on the *Words to Describe Addition Strategies* chart, such as "breaking apart an addend" and "add the remaining ones." Consider including an example next to the strategy.

**Key Takeaway:** Say, "When adding a two-digit and a one-digit number that requires making a new ten, you can break apart the one-digit addend to get to the next ten and then add on any remaining ones."

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

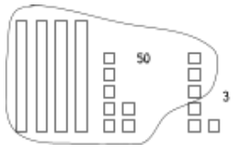
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the number of ones needed to get to the next ten, and record the next ten as the sum. | We need to add 3 more to 47 to get to the next ten.<br>47 + 6 50 | **Support:** Ask, "You added 47 + 3 to get to the next ten. Look back at Problem 4. How many more ones do you need to add?" |
| Use the *Tens and Ones Mat* or a base-ten drawing to find the number of ones needed to get to the next ten, and then add on the remaining ones. |  | **Strengthen:** Ask, "Where is 6 in your representation? How did you break 6 apart?" |
| Write equations that show the number of ones needed to get to the next ten and then the addition of the remaining ones. | 40 + 7 + 3 = 50<br>50 + 3 = 53<br>47 + 6 53 | **Strengthen:** Ask, "Where is 6 in your work? After adding 3 to get to the next ten, how did you know that you had to add on 3 more to 50?" |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Print Lesson | Whole Class | 10 min

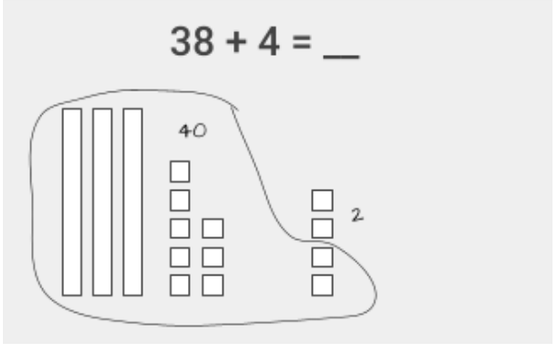
# Synthesis

**Lesson Takeaway:** When finding the sum of two-digit and one-digit numbers, the one-digit addend can be decomposed to make the next multiple of 10, and then any remaining ones can be added on.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)




X–X **Say**, "Carmina and Aunt Marta asked some neighbors for more wazzle-squashes for their crisps project. This equation shows how many wazzle-squashes they received and the drawing shows how Carmina found the sum"

**Ask:**

- "How did Carmina find this sum?"
- "What equations could you write to represent her strategy?".

**Record** 38 + 2 = 40 and 40 + 2 = 42.

**Say,** "When adding two-digit and one-digit numbers, you can use equations to show how you broke apart the one-digit addend to get to the next ten and then added the remaining ones."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add a two-digit number and a one-digit number in which it is necessary to compose a ten.
2. **Language Goal:** Explain how to find the value that can be added to a two-digit number to get to the next multiple of ten. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 5 | 2 | NY-1.OA.1 |
| Fluency | 6, 7 | 1 | NY-1.OA.4, NY-1.OA.6a |
| | 8–11 | 1 | NY-1.NBT.2 |

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 8 – Add Within 100 Without Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add two numbers, without composing a ten, to practice strategies for addition within 100.

### Materials

- 2 centimeter cubes, two-color counters (20 for each student) **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 1.**


## Get Your Numbers in Order


**Stage 1 – Two-digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.3

Students make and record two-digit numbers from least to greatest to apply place value reasoning when considering the relationships between numbers.

### Materials

- number cards (0–9) **(Manipulative Kit)**
- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 3.**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Target Numbers

**Stage 1 – Add Ones**
**Pairs** | **15 min** | NY-1.NBT.4

Placeholder for Center Icon

Students add one-digit numbers to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

**Materials**

- number cards (1–9) (one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025–26 school year.

# Differentiation Use after Lesson 7

**Lesson Goal:** Text goes here

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students:** If statement goes here.<br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>*Mini-Lesson Title Goes here*<br>• **Lesson 7 Refresh Video** | **If Students:** If statement goes here.<br>**Respond:**<br>• **Centers** \| 15 min<br>*Cover Up*, Stage 8<br>*Get Your Numbers in Order*, Stage 1<br>*Target Number*, Stage 1<br>• **Lesson 7 Practice** \| 15 min<br>• **Item Bank** | **If Students:** If statement goes here.<br>**Respond:**<br>• **Sub-Unit 2 Extension Activities** \| 15 min |
| Mini-Lesson FPO | Centers FPO | Extension FPO |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 8**

# Special Deliveries

## Recognizing If a Ten Will Be Composed Before Adding

Let's think about how to know if you will make a new ten before finding a sum.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Identify addition expressions in which it is necessary to compose a ten to find the sum.
2. **Goal:** Identify one-digit numbers that could be added to a two-digit number to fit a rule of either requiring or not requiring the composition of a new ten when finding the sum.
3. **Language Goal:** Explain how to know whether a ten will be composed before finding the sum of a two-digit and a one-digit number. **(Speaking and Listening)**

Students analyze a series of addition expressions and identify the ones in which composing a ten is necessary to find the sum. Some students may reason about the amount of ones in the addends without finding the sums, while others may need to find the sums to decide. They also find a one-digit number that could be added to a given two-digit number,when given information about whether it is necessary to compose a ten when finding the sum. This experience provides an opportunity for students to develop generalizations that help them determine when composing a ten is necessary prior to finding sums. **(MP7, MP8)**

### Prior Learning

In Lesson 7, students explored how they can find the sum of a two-digit and one-digit number by decomposing the one-digit addend to make the next ten and then adding on any remaining ones.

### Future Learning

In Sub-unit 3, students will add 2 two-digit numbers within 100 that require composing a ten.

## Rigor and Balance

- Students deepen their **conceptual understanding** of place-value based strategies for adding within 100.
- Students **apply** their knowledge of sums within 20 to add within 100.

## Vocabulary

**Review Vocabulary**

- *addend*
- *conjecture*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP7, MP8

**Building On**

| | |
|---|---|
| **NY-1.NBT.2** | |
| **NY-1.OA.C.6a** | |

**We are a math community.**
The community of Faraway worked together to handle a bad situation. What was the result?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard: NY-1.NBT.4

## Warm-Up Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Pairs | 15 min

Students shade expressions that require making a ten on a map and share different strategies used to identify these expressions. Students notice they can look at the ones to see if there are enough to make a ten before adding.
**Additional Prep** Assemble: towers of 10 cubes


Screens X–X

## Activity 2 Pairs | 15 min

Students use what they know about adding, including recognizing when they need to make a ten, to find numbers that could be added to a given number to fit a rule of either making or not making a new ten when finding the sum.


Screens X–X

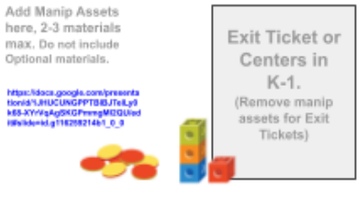
## Synthesis Whole Class | 5 min

Students reflect on how noticing whether or not a new ten will be made when finding the sum of 2 numbers can be helpful when making choices about what strategy to use to find the sum.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Target Numbers, Stage 2*, in which they add one-digit numbers or two-digit multiples of 10 to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *The Day of the Wazzle-squash*
- **Lesson Resources:** Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** colored pencils or crayons

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students add within 100 to practice decomposing an addend to make a ten and then adding on the remaining ones.

Presentation Screen X


| A | B |
|---|---|
| 37 + 3<br>40 | 37 + 3 + 2<br>42 |
| **C** | **D** |
| 37 + 5<br>42 | 48 + 6<br>54 |

## Launch

**Use the Number Talk routine.**

x–x **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

x–x **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions C and D.

**Ask,** "For Expression D, what expression could you write to show breaking apart the 6 to make the next ten?"

**Record** the expression 48 + 2 + 4.

**Students might say . . .**

A: I know 7 + 3 = 10. Then I did 30 + 10 = 40.

B: Since I know 37 + 3 = 40, I just added on 2 more, which is 42.

C: I know the sum is 42 because it is the same as Expression B, except the 5 is not broken apart this time.

D: I broke apart the 6. I added 2 to 48 to get 50 and then I had to add 4 more. So the sum is 54.

Print Lesson | Pairs | 15 min

# Activity 1 Planning a Delivery Route

**Purpose:** Students identify addition expressions in which finding the sum would require composing a ten, to prepare for finding possible answers to problems in Activity 2..

Presentation
Screens X–X


## Launch

Launch
Storyboard Art
FPO

X–X **Say,** "Carmina and Aunt Marta have been hard at work making packages of delicious and nutritious wazzle-squash crisps for the community helpers. When all of the packages were ready, Aunt Marta printed out a map, so she and Carmina could plan out their stops to deliver the crisps."

**Read aloud** Problems 1 and 2.

**Provide** access to connecting cube towers of 10 and single cubes and the *Tens and Ones Mats*.

[A] **Accessibility: Memory and attention** Have students focus on coloring at least 3 equations that require making a new ten rather than finding all equations that require making a new ten.

### Materials

**Lesson Resources:**
- Provide students with access to Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Distribute colored pencils or crayons to each pair.
-

## Monitor

Monitor
Storyboard Art
FPO

*NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you being asked to do?"
- Ask, "Choose one expression to focus on first. How can you know if you will need to make a ten when finding this sum?"

## Connect

Connect
Storyboard Art
FPO

X–X **Display** 9 + 63.

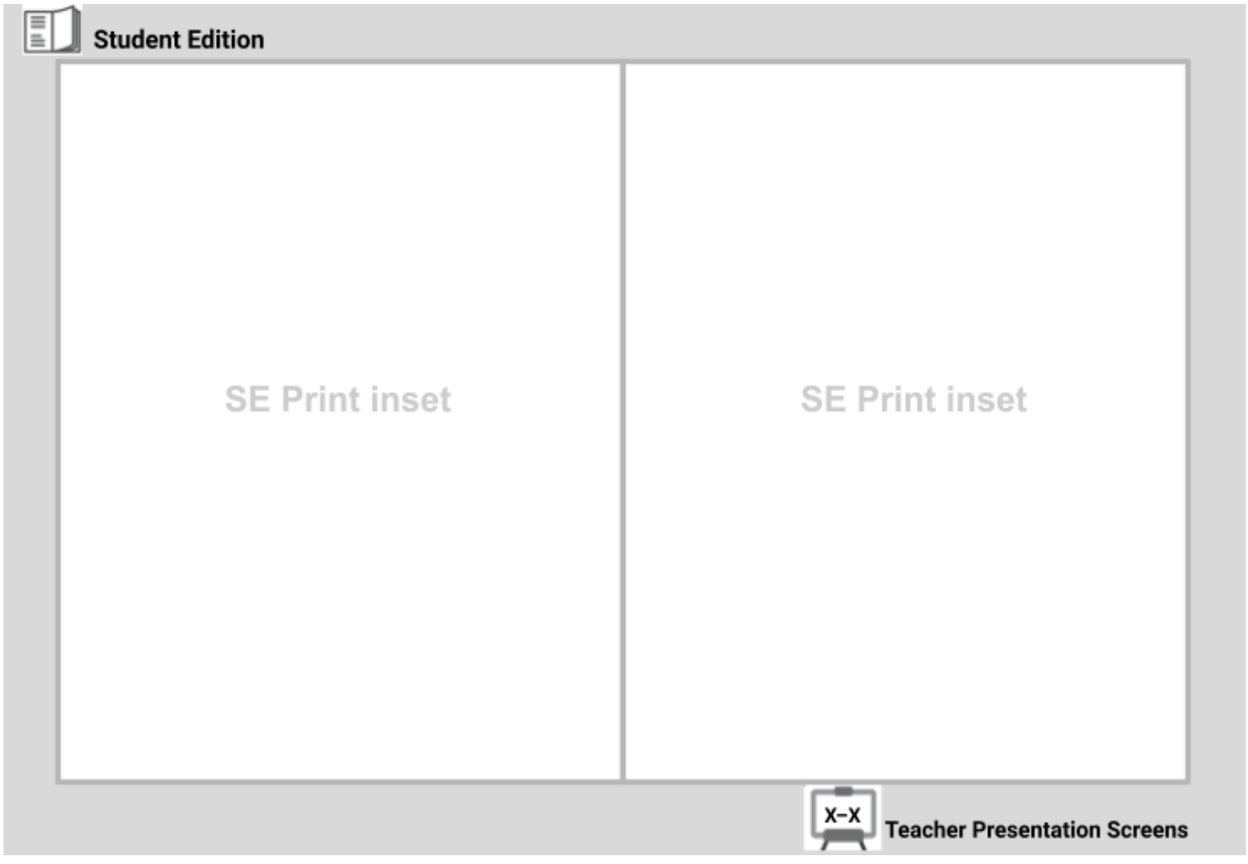
**Ask,** "How did you decide whether or not to shade this expression on the map?"

**Invite students to share** their responses. Select and sequence their responses by having students share in the order shown in the *Differentiation* table. Record students' thinking with drawings or equations. Repeat these steps for 22 + 6.

**[L] MLR8: Discussion Supports — Active Listening**

- Invite students to restate others' responses. Ask the original speaker to listen to how their response was rephrased and confirm or clarify.
- [EL] **Multilingual/English Learners:** Give students time to formulate and rehearse a response.

**Key Takeaway:** Say, "You can think about whether a new ten will be made before finding a sum by noticing if there are enough ones in both addends to make a ten."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . (9 + 63) | Provide support . . . |
|---|---|---|
| Find the sum to determine if an expression should be shaded. | 63 + 7 = 70<br>70 + 2 = 72<br>The sum has a new ten so we can shade the space for 9 + 63. | **Strengthen:** Ask, "How could you figure outif the sum will have a new ten without finding the sum?" |
| Find the total amount of ones to determine if an expression should be shaded. | 9 ones plus 3 ones equals 12 ones. 12 is a ten and 2 ones, so 9 + 63 will have a new ten. | **Stretch:** Ask, "You found it will be necessary to make a new ten without finding the sum of the expression. How did you know that this strategy would work?" |
| Reason about the amount of ones to determine if an expression should be shaded. | 63 needs 7 to get to the next ten. 9 is greater than 7, so there are enough ones to make a new ten. | |

Print Lesson | Pairs | 15 min

# Activity 2 What Could the Number Be?

**Purpose:** Students generate addends that fit specific rules about whether or not the sum requires composing a ten to make generalizations about addition within 100.

**Presentation**
**Screens X–X**

## Launch

Launch Storyboard Art FPO

X–X **Read aloud** page 7 of the Unit Story.

**Say:**

- "After Carmina and Aunt Marta delivered the crisps, they had one more errand to run. The artists in town offered to make wazzle-squash sculptures to display at the festival, and they needed to know how many to make."
- "Aunt Marta and Carmina headed to the art studio to drop off a list from the mayor that showed the amounts of wazzle-squash sculptures that could be displayed in different places for the festival. But on their way to the studio, it began to rain and the raindrops smudged part of the list."

**Read aloud** the directions and Problems 3 – 6.

**Provide** access to connecting cube towers or 10 and single cubes and the *Tens and Ones Mats*.

[A] **Accessibility: Executive functioning** Vary the task demands by having students solve Problems 3 and 4 and only solve the additional problems when they have more processing time.

### Materials

- Unit Story, *The Day of the Wazzle-squash*

**Lesson Resources:**

- Provide students with access to Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**

- Provide students with access to connecting cubes (optional).

**Short on time?** Consider omitting Problems 5 and 6.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What has to be true about the missing number?"
- Ask, "What number could be added to 34 that would make a new ten?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** responses and explanations for Problem 4, making sure to choose students with different correct responses to share. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

**Ask,** "Why is there more than one correct answer to this problem?."

**Say (if not yet mentioned during discussion),** "When adding 2 numbers, you will make a new ten if the total number of ones is 10 or more. You will not make a new ten if the total number of ones is less than 10."

- 

**Key Takeaway:** Say, "You can use what you know about sums of 10 to figure out when a new ten will be made.""

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Generate an addend that requires composing a ten to find the sum. |  + 16<br>answer: 5 | **Support:** Ask, "How can you prove that the sum of this expression does not have a new ten?" |
| Generate an addend that does not require composing a ten to find the sum by guessing and checking. | 5 + 16 = 21<br>4 + 16 = 20<br>3 + 16 = 19<br>answer: 3 | **Strengthen:** Ask, "You added different amounts until you found an addend that did not require making a new ten. How can you use what you notice about the number 16 to find the other addend without adding?" |
| Generate an addend that does not require composing a ten to find the sum by reasoning about the total amount of ones. | 6 plus 4 equals 10, so the missing number has to be less than 4.<br>answer: 2 | **Stretch:**Ask, "What rule could you write about when you need to make a ten and when you do not?" |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** If the addends in an addition expression have a total of 10 or more ones, it is necessary to compose a ten when finding the sum. If the total amount of ones in both addends is less than 10, a new ten will not be composed when finding the sum.

Presentation Screens X–X

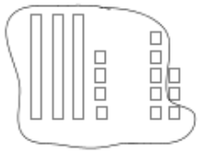

X–X

Summary screen here
(inset 2nd Summary screen, Animation)

34 + 3

4 + 3 = 7
30 + 7 = 37

34 + 8



34 + 6 = 40
40 + 2 = 42

**X–X Say, "Carmina was figuring out how many wazzle-squash sculptures would need to be made for the festival. She recorded her work."**

**Use the Think-Pair-Share routine.** Ask:

- "What do you notice about the numbers in the expressions?""
- "Why do you think Carmina used different strategies to find the sum of the expressions??"

Say (if not yet mentioned during discussion), "When finding the sum of 34 + 3, a new ten will not be made. When finding the sum of 34 + 8, a new ten will be made. Carmina might have wanted to make a drawing of 34 + 8 to help her make the new ten and see how many more ones should be added."

**Say,** "It can be helpful to know that you will make a new ten before finding the sum because then you can make choices about how you solve the problem."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Identify addition expressions in which it is necessary to compose a ten to find the sum.
2. **Language Goal:** Describe similarities in addition expressions when adding a two-digit and one-digit number that require composing a ten when finding the sum. **(Speaking and Listening)**
3. **Language Goal:** Explain how to know whether a ten will be composed before finding the sum of a two-digit and a one-digit number. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 5 | 2 | NY-1.OA.1 |
| | 6, 7 | 1 | NY-1.OA.4 |
| | 8–11 | 1 | NY-1.NBT.2 |
| Fluency | 12, 13 | 1 | NY-1.NBT.5 |

Print Lesson | Pairs | 15 min

# Let's Play
## Target Numbers, Stage 2

**Purpose:** Students choose to add one-digit numbers or two-digit multiples of ten to two-digit numbers, to get as close as possible to a target number.

**Presentation**
**Screens X–X**


## Launch

Launch Storyboard Art FPO

**X–X** **Display** the Center materials, Directions, and Recording Sheet.

**Demonstrate** how to play *Target Numbers*, *Stage 2*.
While demonstrating:

- **Say,** "You will play *Target Numbers* today."
- **Say,** "First I will flip over a number card and choose to add that number of tens or ones." Flip over and display Number card 3.
- **Say,** "The goal of this game is to get a sum in the final row that is close to the Target Number: 95. I will add 3 tens because I am still far away from 95."
- **Record** 3 tens on the Recording Sheet.
- **Use the Think-Pair-Share routine.** Ask:
  - "What is the value of 3 tens?" Record 30 as the second addend.
  - "What is the sum? How do you know?" Record the sum.
- **Say,** "I will use the sum as the starting number for the next equation." Record the sum as the next starting number.
- **Display** 76 + ▢ and Number card 4.
- **Ask,** "If you choose to add 4 tens to 76, what will happen?"
- **Say,** "When choosing to add tens or ones, be careful. You want to get close to 95 but you want to try to avoid sums that are greater than 95."
- **Say,** "You and your partner will take turns completing the equations and finding the sums. The player with a final sum closest to 95 is the winner."

### Materials

**Manipulative Kit:**

Distribute one set of number cards (0–9) to each pair.

**Centers Resources:**.

- Display the Directions and Recording Sheet during the Launch.
- Distribute 2 Recording Sheets to each pair.
-

## Monitor

Monitor Storyboard Art FPO

**Observe** strategies students use to find sums including counting on by tens or ones, adding by place, decomposing to make a ten, or a combination of these. Note if students recognize when they will need to make a ten before adding.

## Connect

Connect Storyboard Art FPO

**X–X** **Ask:**

- "What strategies did you use today?"
- "What strategies do you want to try the next time you play this game?"

**Key Takeaway:** Say, "Today you practiced strategies for adding to get close to the target number."

Centers Resources


Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . (45 + 6 = __) | Provide support . . . |
|---|---|---|
| Count on. | 45, 46, 47, 48, 49, 50, 51 | **Support:** Ask, "How could you find the sum by breaking apart the addends into tens and ones?" |
| Add by place. | 5 + 6 = 11<br>40 + 11 = 51 | **Strengthen:** Say, "How could you break apart one of the addends to make a ten?" |
| Decompose an addend to make a ten and add the remaining ones. | 6<br>5 1<br>40 + 5 + 5 = 50<br>50 + 1 = 51 | **Stretch:** Say, "You broke apart the one-digit addend to make a ten. Can you think of a different way to break apart an addend to make a ten?" |

# Differentiation Use after Lesson 8

**Lesson Goal:** Text goes here

## Support

Provide targeted intervention for students by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson 8 Refresh Video**

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson X Refresh Video**
- Students will have more opportunities to __ in Lesson(s) X. (If this/these lessons come in a later unit, replace "Lesson(s)" with "Unit(s)". Remove the (s) if the lesson/unit is singular.)

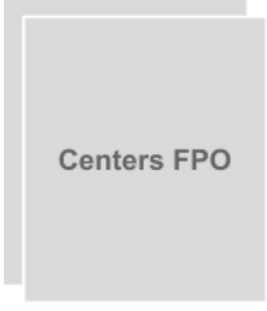

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 8
  *Get Your Numbers in Order*, Stage 1
  *Target Number*, Stage 1
- **Lesson 8 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** If statement goes here.

**Respond:**

- **Sub-Unit 2 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 9**

# Decorating for the Festival

## Composing a Ten When Adding 2 Two-digit Numbers

Let's add to help Carmina prepare decorations for the Wazzle-squash Festival.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Add 2 two-digit numbers within 100, with and without composing a ten.
2. **Language Goal:** Ask and answer questions about representations and strategies for adding 2 two-digit numbers. **(Speaking and Listening)**
3. **Language Goal:** Explain addition strategies. **(Speaking and Listening)**

Students add 2 two-digit numbers that require composing a ten for the first time. They are not required to add by place and should be encouraged to use any strategies and representations that make sense to them. After solving, they analyze peers' representations and ask each other questions. Students then compare strategies and notice the same strategies for adding one- and two-digit numbers can be used to add 2 two-digit numbers. **(MP6, MP7, MP8)**

### Prior Learning

In Sub-unit 2, students added two-digit and one-digit numbers to find sums within 100, recognizing that sometimes it is necessary to compose a ten.

### Future Learning

In Lesson 10, students will add 2 two-digit numbers using cubes and the *Tens and Ones Mat* to continue developing a conceptual understanding of addition within 100.

## Rigor and Balance

- Students deepen their **conceptual understanding** of place-value based strategies for adding within 100.
- Students **apply** their knowledge of sums to 20 to add within 100.

## Vocabulary

**Review Vocabulary**

- *addend*
- *digit*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP6, MP7, MP8

### Building On

| | |
|---|---|
| **NY-1.NBT.2** | |
| **NY-1.NBT.5** | |
| **NY-1.OA.6a** | |

**We are a math community.**
We use math in many ways in our classroom. How do you use math outside of the classroom?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard: NY-1.NBT.4

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **How Many Do You See?** routine, in which they look at and describe the different ways they see different arrangements of pairs of two-digit numbers represented with counters and 10-frames. **(MP7)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 10 min

Students find the sums of 2 two-digit numbers and recognize that it is sometimes necessary to compose a ten when adding 2 two-digit numbers. They analyze and revise their representations for the problem that required composing a ten to prepare to share with other pairs in Activity 2.

**Additional Prep:** Assemble: towers of 10 cubes (9 towers for each pair)

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 20 min

Students analyze, ask questions about, and compare peers' representations from Activity 1 to make sense of the strategies used and identify how the ten was composed in each. They recognize that the same strategies were used to add one-digit and two-digit numbers.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on what strategy they would use to find the sum of 2 two-digit numbers and explain their choice.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice strategies for addition within 100.

- Cover Up, Stage 8
- Target Numbers, Stage 1
- Target Numbers, Stage 2

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

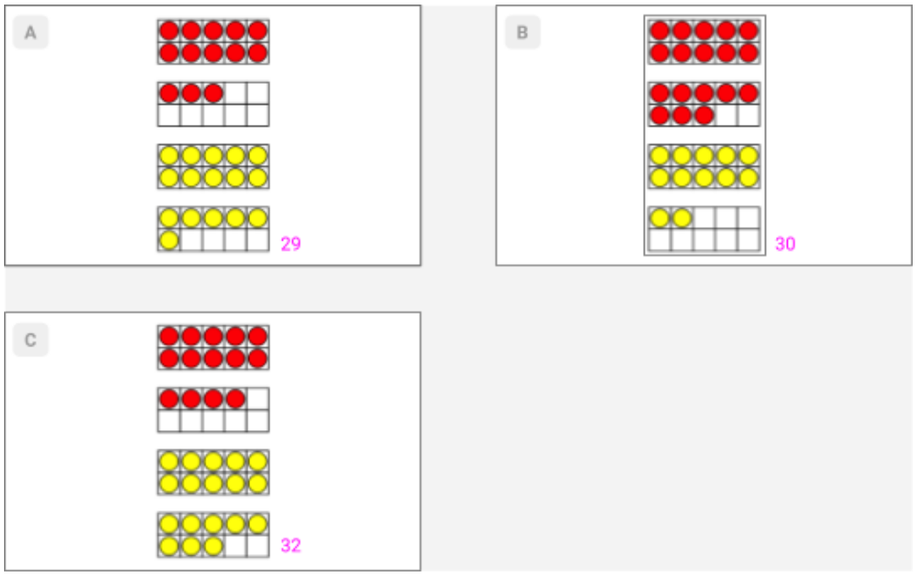
- **Lesson Resources:** Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** *Words to Describe Addition Strategies* chart (from prior lessons)

Print Lesson | Whole Class | 10 min

# Warm-Up How Many Do You See?

**Purpose:** Students determine the total number of red and yellow counters presented in 10-frame images to practice recognizing and making groups of ten to add within 100.

Presentation Screen X


## Launch

**Use the How Many Do You See? routine.**

X-X **Flash** Image A for 2–5 seconds, and ask, "How many do you see?"

**Say,** "Give me a signal when you have an answer."

**Display** the image again, leaving it displayed to discuss.

## Connect

X-X **Record** 2 or 3 students' responses, and ask, "How did you see them?"

**Repeat** for each image, spending the most time discussing Image C.

**Ask:**

- "How can you make a ten with the counters?"
- "What addition expression could you write to represent Image C?" Record 14 + 18.
- "How could you know, by looking at only the expression, that you will make a ten when finding the sum?"

**Students might say . . .**

A: I see 2 full 10-frames, and I know that is 20. I see 3 red and 6 yellow counters, and 3 plus 6 equals 9. So the total is 29.

B: I see 2 tens. I pictured the 2 yellow counters on the 10-frame with the 8 red counters, which makes another ten. So the total is 3 tens, which is 30.

C: I know there are 2 full 10-frames. I can take 2 of the red counters to make another ten with the 8 yellow counters. So there are 3 tens and 2 remaining ones, which is 32.

Print Lesson | Pairs | 10 min

# Activity 1 Reusing Wazzle-squashes

**Purpose:** Students find the sums of addition expressions to notice that it is sometimes necessary to compose a ten when adding 2 two-digit numbers.

**Presentation**
**Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X Say:

- "After making and delivering wazzle-squash crisps to the town helpers, Aunt Marta and Carmina came home to buckets and bowls filled with hollowed out wazzle-squashes. Rather than just throwing them out, Carmina thought of a way to reuse them — she could string them together to make wazzle-squash garlands for the festival!"
- "Work with your partner to help Carmina find the number of wazzle-squashes she needs to make two garlands."

**Read aloud** the directions for Problems 1 and 2.

**Say,** "Cubes and the *Tens and Ones Mats* are available. If you use these tools, show how you used the tools with a drawing in your book."

**Provide** access to connecting cube towers of 10 and single cubes and *Tens and Ones Mats*.

### Materials

**Lesson Resources:**
- Provide students with access to the Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What strategies have you used in previous lessons to find sums of 2 two-digit numbers?"
- Ask, "What tools or representations can you use to help you find the sums?"

[A] **Accessibility: Executive functioning** Guide processing by inviting students to plan a strategy and share their plan with their partner before solving. This will give students time to brainstorm different solution pathways.

## Connect

Connect Storyboard Art FPO

X–X **Display** Problem 1 and ask, "What is the sum?" Record the sum.

**Ask**, "Did you need to make a new ten when finding this sum? Why?"

**Repeat** the questions for Problem 2.

**Say,** "In Problem 1, you made a new ten when finding the sum. Look at your representation for Problem 1 and think about what else you could include to help others understand how you solved the problem. You will share your work with other pairs in Activity 2." Have students edit their work independently for 1 minute.

**Key Takeaway:** Say, "Just like when you added a two-digit number and a one-digit number, sometimes you will make a new ten when adding 2 two-digit numbers."

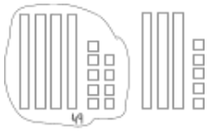
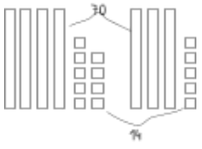
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count on by tens and ones. |  <br>49, 59, 69, 79, 80, 81, 82, 83, 84 | **Strengthen:** Ask, "Was it necessary to make a ten when finding this sum? Where do you see this in your representation?" |
| Add by place. |  <br>40 + 30 = 70  9 + 5 = 14<br>70 + 14 = 84 | |
| Decompose one of the addends to make a ten. | 49 + 35<br>49 + 1 + 34<br>50 + 34 = 84 | **Stretch:** Ask, "You broke apart 35 to make a ten and then added the remaining amount. Would this strategy work if you started with 35 and broke apart 49? Why?" |

Print Lesson | Pairs | 20 min

# Activity 2 Asking to Understand

**Purpose:** Students analyze and ask questions about peers' addition strategies and representations from Activity 1 to understand different strategies for adding 2 two-digit numbers.

**Presentation**
**Screens X–X**

## Launch

Launch Storyboard Art FPO

X–X **Say,** "You are going to think about how others solved Problem 1 from Activity 1."

**Read aloud** Problems 3 and 4.

**Say:**

- "Half of the pairs will stand next to their representations, and the other half of the pairs will visit and look at others' representations. For each representation you visit, look at the work and ask questions to understand how they found the sum."
- "As you discuss each representation, it may be helpful to use the *Words to Describe Addition Strategies* chart." Have pairs move after 2–3 minutes, so each pair discusses at least two different representations. Then have groups switch roles and repeat.

[EL] **Multilingual/English Learners:** If possible, group students with different levels of English language proficiency together as they complete this activity. Allow Multilingual Learners to share in their primary language first before sharing in English. This will provide a structured opportunity for all students to interact with and receive feedback from their peers with varied language backgrounds.

### Materials

**Classroom materials:**

- Refer to the *Words to Describe Addition Strategies* chart (from prior lessons) during the Launch.

**Short on time?** Consider modifying the Launch by having each pair meet with one other pair to complete Problems 3 and 4.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What is one thing you notice about how this pair solved the problem?"
- Ask, "What is one part of this representation that you would like to know more about? What do you want to know?"

## Connect

Connect Storyboard Art FPO

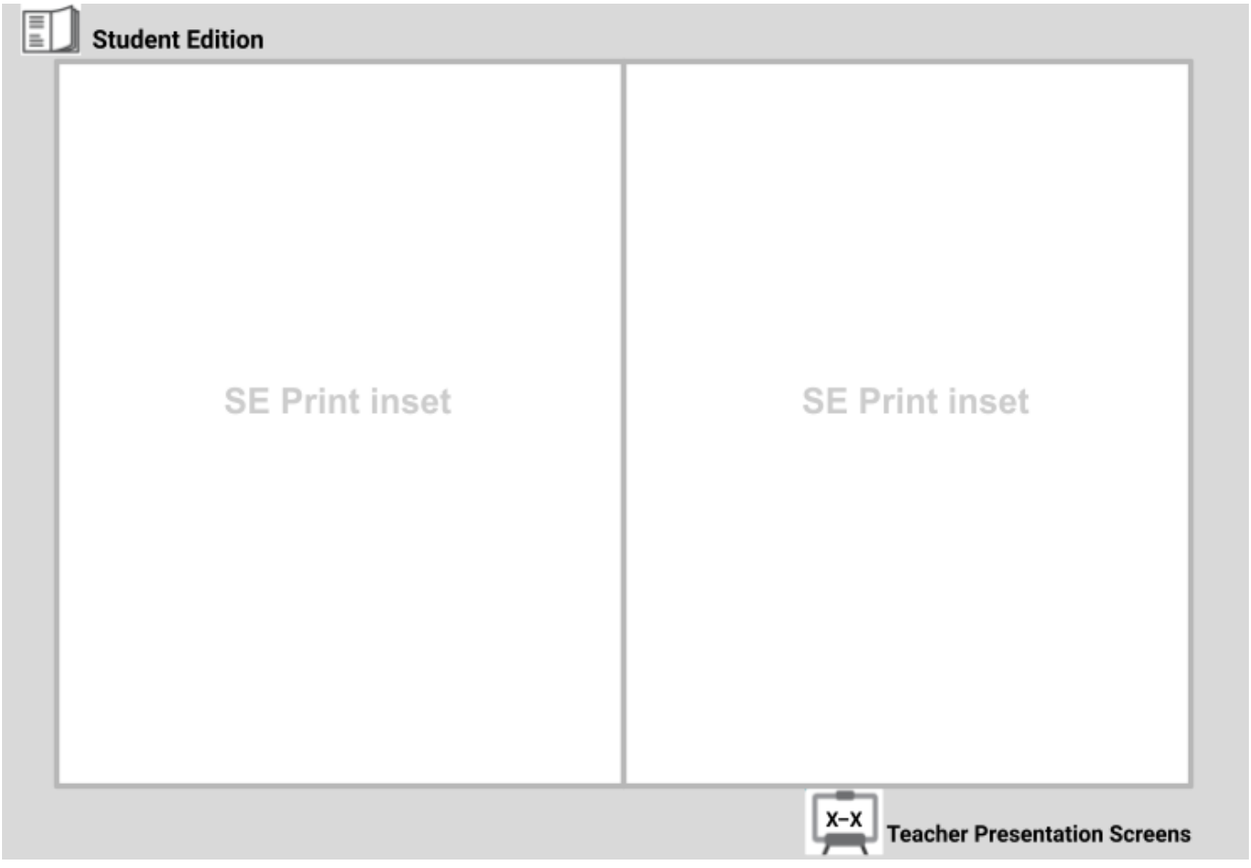
X–X **[L]** The Connect is structured using the *MLR7: Compare and Connect* routine.

**Display** 3 pairs' representations, each showing one of the following strategies: counting on by tens and ones, adding by place, and decomposing an addend to make a ten.

**Ask:**

- "How are these strategies alike?"
- "How are they different?"
- "Which strategies make the most sense to you right now? Which strategies do you still have questions about?"

**Key Takeaway:** Say, "To find the sum of 2 two-digit numbers, you can use the same strategies you used when adding two-digit and one-digit numbers such as counting on by tens and ones, finding the total amount of tens and the total amount of ones, or breaking apart one of the addends to make a ten and then adding on any remaining tens and ones."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Ask a question related to the quality of the representation. | Why did you use arrows to show the parts you added together instead of circling them? | **Strengthen:** Ask, "What questions do you have about how this pair found the sum?" |
| Ask a question that could be asked about a variety of strategies or representations. | Why did you use the cubes and the *Tens and Ones Mat*? | |
| Ask a question that is specific to the pair's strategy or representation. | Why did you break apart the 35 into tens and ones, but not the 49? | **Strengthen:** Ask, "What might this pair add to their representation to make their thinking more clear?" |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When adding 2 two-digit numbers, sometimes, it is necessary to compose a ten. The same strategies that work for finding the sums of two-digit and one-digit numbers can be used to find the sums of 2 two-digit numbers.

**Presentation Screens X–X**


X–X

**X–X Use the Think-Pair-Share routine.** Say, "Carmina made a mistake when finding the sum of 27 and 34. Talk with your partner about the steps Carmina took to find the sum and where she made a mistake."

**Ask,** "What questions could you ask Carmina to help her see her mistake so she understands what to do when she tries again?"

**Say,** "When adding 2 two-digit numbers, it is important to make sure you add the tens and the ones in both numbers." ."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add 2 two-digit numbers within 100, with and without composing a ten.
2. **Language Goal:** Ask questions about representations and strategies for adding 2 two-digit numbers. **(Speaking and Listening)**
3. **Language Goal:** Explain addition strategies. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.4 |
| | 2 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 3 | 2 | NY-1.OA.1 |
| | 4, 5 | 1 | NY-1.OA.4 |
| | 6–9 | 1 | NY-1.NBT.2 |
| Fluency | 10, 11 | 1 | NY-1.NBT.5 |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 8 – Add Within 100 Without Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add two numbers, without composing a ten, to practice strategies for addition within 100.

### Materials

- 2 centimeter cubes, two-color counters (20 for each student) **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 1.**

Placeholder for Center Divider and Instructions Sheet.

## Target Numbers


**Stage 1 – Add Ones**
**Pairs** | **15 min** | NY-1.NBT.4

Students add one-digit numbers to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Target Numbers

**Stage 2 – Add Tens or Ones**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.4

Placeholder for Center Icon

## Differentiation | Teacher Moves

Students choose to add one-digit numbers or two-digit multiples of ten to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

# Differentiation Use after Lesson 9

**Lesson Goal:** Text goes here

## Support

Provide targeted intervention for students by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson 9 Refresh Video**

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson X Refresh Video**
- Students will have more opportunities to __ in Lesson(s) X. (If this/these lessons come in a later unit, replace "Lesson(s)" with "Unit(s)". Remove the (s) if the lesson/unit is singular.)

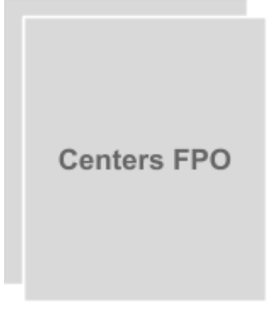

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 8
  *Target Numbers*, Stages 1 and 2
- **Lesson 9 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

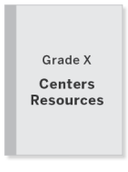
**If Students:** If statement goes here.

**Respond:**

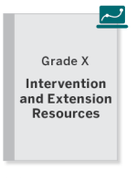
- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers




Mini-Lessons
Extensions


Lesson Practice


Item Bank

Lesson Refresh Video

## Professional Learning

In Sub-unit 2, students noticed that they could determine whether or not composing a ten was necessary before finding sums. How did students use that understanding to support them in adding 2 two-digit numbers? What support might students need to make those connections?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 10**

# Sending Invitations

## Using a Tens and Ones Mat to Add 2 Two-Digit Numbers

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


Let's think about the total number of tens when adding 2 two-digit numbers.

## Focus and Coherence

### Today's Goals

1. **Goal:** Find sums of 2 two-digit numbers, with and without composing a ten.
2. **Language Goal:** Explain how to find the total amount of tens in the sum of 2 two-digit numbers. **(Writing, Speaking, and Listening)**

Students find sums of 2 two-digit numbers, with and without composing a ten, and make connections between concrete and abstract representations used to solve. They recognize that the digit in the tens place in a sum represents the total amount of tens in both addends, which sometimes includes a ten composed from ones.
**(MP4, MP7)**

### Prior Learning

In Lesson 8, students noticed that when the total amount of ones is 10 or more, it is necessary to compose a ten. In Lesson 9, students found the sums of 2 two-digit numbers using strategies that made sense to them.

### Future Learning

In Lesson 11, students will build on their understanding of place value to think about the total amount of tens in a sum before adding in order to consider the reasonableness of their answer.

## Rigor and Balance

- Students build **conceptual understanding** of place-value based strategies for adding within 100.
- Students **apply** their understanding that a group of 10 ones can be composed to make a ten to add 2 two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *addend*
- *digit*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP4, MP7, MP8

**Building On**

| | |
|---|---|
| **NY-1.NBT.2** | |

**I can be all of me in math class.**
When have you been a creative thinker in math class?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.NBT.4

## Warm-Up Whole Class | 10 min

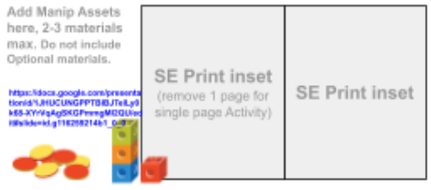
Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**


Screens X–X

## Activity 1 Independent | 15 min

Students build their conceptual understanding of adding 2 two-digit numbers by place, with and without composing a ten, through manipulating connecting cubes on a *Tens and Ones Mat*.

**Additional Prep** Assemble: towers of 10




Screens X–X

## Activity 2 Independent | 15 min

Students add 2 two-digit numbers and explain how the digit in the tens place in the sum reflects the total amount of tens in both addends. While concrete tools may be used, students are encouraged to represent their work using a written method.


Screens X–X

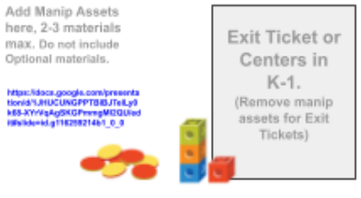
## Synthesis Whole Class | 5 min

Students review and reflect on the composition of the amount of tens in a sum and consider why it might be helpful to think about the total amount of tens before solving.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Cover Up, Stage 9*, in which they add 2 numbers, with and without composing a ten, to practice strategies for adding within 100.




Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Graphic Organizer PDF, *Tens and Ones Mat* (optional)**Manipulative Kit:** connecting cubes

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Purpose:** Students add numbers within 100 to develop strategies for decomposing an addend to make a ten.

Presentation
Screen X


| A | B |
|---|---|
| 38 + 2<br>40 | 40 + 3<br>43 |
| **C** | **D** |
| 38 + 5<br>43 | 38 + 15<br>53 |

## Launch

**Use the Number Talk routine.**

x–x **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

x–x **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions A, B, and C.

**Ask,** "How can you use 38 + 2 to help you solve 38 + 15?"

**Students might say . . .**

A: I know 38 + 2 is 40.

B: I know 40 + 3 is 43.

C: I broke apart the 5 into 2 and 3 so I could make a ten. 38 + 2 = 40. Then there were 3 more. 40 + 3 = 43.

D: I broke apart 15 into 13 and 2 so I could make a ten. 38 + 2 = 40 and 40 + 13 = 53.

Print Lesson | Independent | 15 min

# Activity 1 Stacks of Invitations

**Purpose:** Students add 2 two-digit numbers and compare representations to notice where the total amount of tens and ones are represented in different representations.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,**

- "At the mayor's office, the printer clicked, beeped, and whirred as Wazzle-squash Festival invitations were printed to be sent to neighboring towns."
- "As the workers at Mayor Viola's office combined stacks of invitations, they added the amounts in each stack together to make sure they had enough invitations for the people in each town. You are going to help them find the number of invitations in each stack."

**Read aloud** the directions and Problems 1–3. Have students work independently for 5–7 minutes.

**Say,** "Now you are going to meet with a partner."

**Read aloud** Problem 4.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on their responses for Problem 1–3 before moving them on to Problem 4.

### Materials

**Lesson Resources:**

- Provide access to the Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**

- Provide students with access to connecting cube towers of 10 and single cubes (optional).

**Short on time?** Consider omitting Problems 3 and 4.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Say, "Point to where the tens belong on your Mat. Point to where the ones belong on your Mat."
- Ask, "How might you group some of the cubes to help you find the sum?"

## Connect

Connect Storyboard Art FPO

X–X **[L] Note:** This Connect is structured using the *MLR7: Compare and Connect* routine.

**Display** the Activity 1 PDF.

**Ask:**

- "What is the same about these representations?"
- "What is different about these representations?"

**Say,** "In the first representation, the work is done with cubes. The second representation shows the same strategy, but with a drawing. Both representations show the tens from each addend grouped together, and they also show 10 ones grouped together to make another ten."

**Use the Think-Pair-Share routine.** Ask, "Why might it be helpful to group the tens together?"

**Key Takeaway:** Say, "There are many ways to add 2 two-digit numbers to find the total number of tens and ones in both numbers. It can be helpful to use drawings or tools to find the sum. "

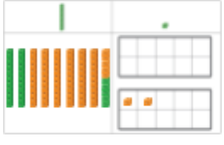
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Represent the ones from each addend on separate 10-frames and use a counting strategy to find the sum. |  80, 81, 82 . . . 92 | Ask, "How else could you arrange the addends to know how many tens there are in the sum?" |
| Combine the ones from both addends to fill a 10-frame. |  80 + 12 = 92 | |
| Connect 10 single cubes to make a new tower of 10. |  9 tens and 2 ones is 92. | **Extend Thinking** Ask, "The sum shows that there are 9 tens. Where did those 9 tens come from?" |

Print Lesson | Independent | 15 min

# Activity 2 Thinking About Tens

**Purpose:** Students add 2 two-digit numbers and explain how they found the total amount of tens in the sum to notice that the digit in the tens place represents the amount of tens in each addend and, sometimes, a ten composed from ones.

**Presentation**
**Screens X–X**

## Launch

Launch Storyboard Art FPO

X–X **Read aloud** the directions for Problems 5 and 6.

**Say,** "You may show your thinking using connecting cubes and a *Tens and Ones Mat*. If you do, represent your thinking with drawings or equations too."

**Provide** access to connecting cubes and *Tens and Ones Mats*.

**[EL] Multilingual/English Learners:** Strategically pair students with partners who speak the same primary language. Allow students to share and receive feedback in their primary language before sharing in English.

### Materials

**Lesson Resources:**
- Provide access to the Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cube towers of 10 and single cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "Use cubes and a *Tens and Ones Mat* to help find the sum. How can you represent the towers of ten with a drawing? The ones?"
- For Problem 2 ask, "Point to a ten in your work. Are there other tens in your work?"

**[L] MLR1: Stronger and Clearer Each Time**
After students complete Problem 3, have them meet with 2 or 3 other students to share their responses. Encourage listeners to ask clarifying questions using stems, such as:
- "What do you mean by . . .?"
- "Can you tell me more about . . .?"

Have students revise their responses based on the feedback they receive.

## Connect

Connect Storyboard Art FPO

X–X **Display** the Activity 2 PDF.

**Ask:**

- "What is the same about these problems?"
- "What is different about these problems?"
- "Each sum has 6 tens. Why do they each have 6 tens?"

**Say,** "In Problem 1, the digit in the tens place of the sum represents the sum of the 2 tens in 27 and the 4 tens in 41. In Problem 2, the digit in the tens place represents the sum of the 3 tens in 35, the 2 tens in 29, and the new ten made from the ones in both addends."

**Key Takeaway:** Say, "When adding 2 two-digit numbers, the digit in the tens place of the sum represents the total number of tens in both addends or, when a new ten is made, the total number of tens in both addends and the new ten."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Write a general statement about how they found the total amount of tens. | I added both numbers and then noticed there were 6 tens. | Ask, "Where did each of those 6 tens come from?" |
| Write a statement that describes one step taken to find the total amount of tens. | I added 3 + 2 since there were 3 tens in one addend and 2 tens in the other addend. | Ask, "You noticed there are 3 tens in 35 and 2 tens in 29, which makes 5 tens. How can you explain the 6 in the tens place of 64?" |
| Write a statement that describes all the steps taken to find the total amount of tens. | I added 3 + 2 to find the total of the tens from each addend. Then I added the ones and noticed that there were enough to make 1 more ten. | ****Extend Thinking****<br>Ask, "Why might it be helpful to think about the total amount of tens in a sum?" |

Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** The amount of tens in a sum is composed of the total tens in each addend and, sometimes, a ten composed from the ones in both addends.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

46 + 28

**X–X Ask:**

- "How many tens do you think will be in the sum? Why?"
- "Why is it helpful to think about the total amount of tens before solving?"

**Say,** "In the next lesson, you will spend time thinking about how many tens will be in a sum before adding and how knowing the total amount of tens before adding could be helpful."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Use concrete tools to find the sum of 2 two-digit numbers, with and without composing a ten.
2. **Goal:** Find sums of 2 two-digit numbers, with and without composing a ten.
3. **Language Goal:** Explain how to find the total amount of tens in the sum of 2 two-digit numbers. **(Writing, Speaking, and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–4 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 5 | 2 | NY-1.OA.1 |
| | 6, 7 | 1 | NY-1.OA.4 |
| | 8–11 | 1 | NY-1.NBT.2 |
| Fluency | 12, 13 | 1 | NY-1.NBT.5 |

Print Lesson | Pairs | 15 min

# Introducing the Center

## Cover Up, Stage 9

**Purpose:** Students add 2 numbers, with and without composing a ten, to practice strategies for addition within 100.

**Presentation**
**Screens X–X**


### Materials

- centimeter cubes (two per pair), two-color counters **(Manipulative Kit)**
- **Recording Sheet,** Gameboards (A, B) **(Centers Resources)**

## Launch

Launch
Storyboard Art
FPO

X–X **Demonstrate** how to play *Cover Up*.

- **Display** Gameboard A. Point to the two gray rows at the bottom.
- **Say,** "To start the game, I am going to put a cube on a number in the top gray row and another cube on a number in the bottom gray row."
- **Demonstrate** placing a centimeter cube on 8 and 25.
- **Use the Think-Pair-Share routine**. Ask, "What is the sum of 8 and 25?"
- **Say,** "Because the sum is 33, I will place a counter on 33. I chose red, so I will place the counter on the red side, and my partner will use the yellow side of the counters."

**Say**, "Next, my partner will move one cube. We will continue taking turns until one player wins by getting 5 of their own counters in a line."

## Monitor

Monitor
Storyboard Art
FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** whether students are selecting addends at random, considering the total tens, or considering the total ones.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** Gameboard A with 4 yellow counters in a line and a cube in one number in the gray box.

**Invite students to share** the number on which they would place the second cube.

**Key Takeaway:** Say, "Finding the total number of tens can give a number close to the actual sum."

Centers Resources


Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . .<br>I want to cover up 61.<br>There is already a cube on 25. | Provide support . . . |
|---|---|---|
| Select an addend at random. | 25 + 17<br>I chose 17 as the other addend. | Ask, "How can thinking about the total amount of tens in the sum you want to cover help you select an addend?" |
| Select an addend by using the digits in the tens place to find the total amount of tens. | 25 + 49<br>I chose 49 as the other addend because 2 tens and 4 tens makes 6 tens. | Ask, "You noticed there are 2 tens in 25 and 4 tens in 49. What else is there to consider when thinking about the total amount of tens?" |
| Select an addend by using the digits in the tens and ones place to find the total amount of tens. | 25 + 36<br>I chose 36 as the other addend because 2 tens and 3 tens makes 5 tens, and the ones make 1 more ten. | ****Extend Thinking****<br>Ask, "You used what you know about the total amount of tens in a sum to make your line of counters longer. How else might you use what you know about tens to try to win the game?" |

# Differentiation Use after Lesson 10

**Lesson Goal:** Text goes here

## Support

Provide targeted intervention for students by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Adding Two-digit and One-digit Numbers*
- **Lesson 10 Refresh Video**

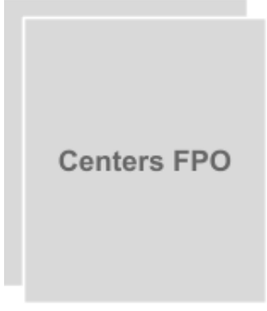

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 8
  *Target Numbers*, Stages 1 and 2
- **Lesson 10 Practice** | 15 min
- **Item Bank**




## Stretch

Challenge students and extend their learning with these resources.

**If Students:** If statement goes here.

**Respond:**

- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

### Professional Learning

In the next lesson, students think about the reasonableness of their answers. How does this lesson prepare them for considering the reasonableness of their answers?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 11**

# Thinking About the Sum

## Identifying the Amount of Tens in Sums Before Solving

Let's use what we know about tens to think sums.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Find the sum of 2 two-digit numbers, with composing a ten.
2. 
3. **Language Goal:** Make and explain statements about how many tens the sums of 2 two-digit numbers will have before solving. **(Speaking and Listening)**

Without solving, students use their understanding of place value to determine how many tens will be in the sums of 2 two-digit numbers. They consider how this might be a useful strategy for attending to the reasonableness of their sums. **(MP7)**

### Prior Learning

In Lesson 10, students added 2 two-digit numbers to build their conceptual understanding of finding sums within 100.

### Future Learning

In Lesson 12, students will continue to add within 100, focusing on strategies that involve decomposing an addend.

## Rigor and Balance

- Students develop their **conceptual understanding** of composing a ten when adding 2 two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *greater than*
- *less than*
- *a one/ones*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

*Also Addressing*: NY-1.OA.8

**Mathematical Practices:** MP3, MP6, MP7

### Building On

**NY-1.NBT.2**

**We are a math community.**
What should partner work look and sound like in our math community?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.NBT.4, NY-1.OA.8

## Warm-Up Whole Class | 10 min

Students use the **Which One Doesn't Belong?** routine to analyze and describe addition expressions and apply their knowledge of composing a ten when finding a sum. They should be encouraged to use precise language as they give their reasons for the one they chose. **(MP3, MP6)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students continue to develop their conceptual understanding of adding 2 two-digit numbers, as they find the total amount of tens, including when a ten needs to be composed, before finding the sum.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students think about the addends in addition expressions and identify how many tens will be in the sum before solving. Then they solve andconsider how thinking about the total amount of tens in a sum before adding could be helpful.**(MP6)**

**Additional Prep** Assemble: towers of 10

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how they can determine whether a sum is reasonable by thinking about how many tens will be in the sum before adding and then comparing the final sum to what they already know about the amount of tens.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice strategies for addition within 100.

- Cover Up, Stage 9
- Target Numbers, Stage 1
- Target Numbers, Stage 2

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeiLy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up Which One Doesn't Belong?

**Purpose:** Students analyze expressions with one-digit and two-digit addends to develop their place value language and consider whether a new ten needs to be composed when finding the sum.

Presentation Screen X


A. 63 + 5

B. 63 + 19

C. 27 + 63

D. 63 + 20

## Launch

X–X **Display** the four addition expressions.

**Use the Which One Doesn't Belong? routine.**

**Say,** "Choose one that doesn't belong. Be ready to share your reasoning."

## Connect

X–X **Record** students' responses as they share.

**Ask,** "For which expression, or expressions, do you need to make a new ten to find the sum? How do you know?"

**Students might say . . .**

A: It is the only one with a one-digit addend.

B: It is the only one that still has ones after you make a new ten.

C: It is the only one that doesn't have any ones left after you make a new ten.

D: It is the only one with an addend that has zero ones.

Print Lesson | Pairs | 15 min

# Activity 1 How Many Tens?

**Purpose:** Students reason about the total amount of tens in addition expressions before finding sums.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X

**Read aloud** the directions and Problems 1 and 2.

**Say,** "You will share your thinking about each statement without solving."

[A] **Accessibility: Visual-spatial processing** Consider providing students access to the Graphic Organizer PDF, *Tens and Ones Mat* or connecting cubes for those who might benefit from seeing the addends set up concretely.

### Materials

Lesson Resources

Provide students with access to Graphic Organizer PDF, *Tens and Ones Mat* (as needed).

**Manipulative Kit**

Provide students with access to connecting cubes (as needed).

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to figure out?"
- Ask, "How could you use math tools, like the *Tens and Ones Mat*, to help you find how many tens will be in the sum?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** their response to Problem 1 using Row 3 of the *Differentiation* table.

**MLR8: Discussion Supports — Pressing for Details**
As students share how they thought through the statement, press for details in their reasoning. For example:

- If a student says, "I looked at the tens." . . .
- Press for details by asking, "Where did you look for tens? Why might someone think about the digits in the tens place? Why might someone think about the digits in the ones place?"
- [EL] **Multilingual/English Learners:** Use wait time to allow students to formulate a response after pressing them for details. Consider having students rehearse with a partner before sharing with the whole class.

**Key Takeaway:** Say, "You can think about the number of tens that will be in a sum before finding that sum."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**.Consider the digits in the tens places to determine how many tens will be in the sum. | 3 tens and 2 tens is 5 tens so the sum will have 5 tens. | **Support:** Ask, "You noticed the total tens in the tens places. What else could you consider when thinking about how many tens there will be in the sum?" |
| Find the sum to determine how many tens will be in the sum. | 38 + 25<br>30 + 20 = 50<br>8 + 5 = 13<br>50 + 13 = 63<br>6 tens | **Strengthen:** Ask, "How could you find how many tens will be in the sum without finding the sum?" |
| Consider the tens and ones places to determine how many tens will be in the sum without solving. | 3 tens and 2 tens is 5 tens. 8 ones and 5 ones make a new ten with more ones that need to be added on, so the sum will have 6 tens | **Stretch:**<br>Ask, "How would you explain why you need to look at the ones to find how many tens will be in a sum?" |

Print Lesson | Pairs | 15 min

# Activity 2 What I Know About the Sum

**Purpose:** Students consider addends to determine how many tens will be in the sum before solving, to assess the reasonableness of their answers.

Presentation
Screens X–X

## Launch

Launch Storyboard Art FPO

X–X **Read aloud** Problems 3–5.

**Provide** access to connecting cube towers of 10 and single cubes and the *Tens and Ones Mats*.

**Materials**
Lesson Resources

Provide students with access to Graphic Organizer PDF, *Tens and Ones Mat* (optonal).

**Manipulative Kit**

Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

****NOTE:** The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 5**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you know about the number 24? What do you know about the number 47?"
- Ask, "What should you look at other than the tens to help you find how many tens will be in the sum?"

## Connect

Connect Storyboard Art FPO

X–X

**Display and read aloud** the statements.

**Use the Think-Pair-Share routine.** Ask, "What do you notice about what this student knows about their sum and their answer?"

**Say,** "The student's answer, 61, does not have 7 tens, so they know their answer is not *reasonable* and that they should try solving again."

**Use the Think-Pair-Share routine.** Ask, "How was thinking about the total number of tens before solving helpful?"

**Key Takeaway:** Say, "Thinking about the total number of tens in both addends can help you know if your answer is reasonable."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Find a sum with a different amount of tens in Problem 4 as Problem 3. | The sum in Problem 4 had 6 tens and Problem 3 said it would have 7 tens, so Problem 3 didn't help me with Problem 4. | **Support:** Ask, "Could both of your answers be correct? Explain your thinking." |
| Find a sum with the same amount of tens in Problem 4 as Problem 3, not recognizing how finding the amount of tens before finding the sum could be helpful. | The sum in Problem 4 has the same number of tens as Problem 3 but Problem 3 didn't help me with Problem 4 because I still had to find the number of ones in the sum. | **Strengthen:** Ask, "What would you do if your sum in Problem 4 had a different number of tens than Problem 3?" |
| Find a sum with the same amount of tens in Problem 4 as Problem 3, and identify how finding the amount of tens before finding the sum could be helpful.. | The sum in Problem 4 has 7 tens and Problem 3 said it should have 7 tens. Problem 3 helped me feel like I got the right answer for Problem 4. | |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** When adding 2 two-digit numbers, thinking about the total amount of tens in both addends can be helpful for knowing whether an answer is reasonable.

Presentation Screens X–X


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

**52 + 29**

X–X **Use the Think-Pair-Share routine.** Ask, "How many tens will be in the sum of 52 + 29, and how do you know?"

**Record** a statement about the total amount of tens.

**Invite** students to solve.

**Ask,** "Is your answer reasonable? How do you know?"

**Say,** "If your answer does *not* match what you know about the total number of tens, you should try solving again. If your answer *does* match what you know about the total number of tens, this probably means your answer is reasonable."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Find the sums of 2 two-digit numbers, with and without composing a ten.
2. **Language Goal:** Justify whether statements about sums within 100 are true or false. **(Speaking and Listening)**
3. **Language Goal:** Make and explain statements about the sums of 2 two-digit numbers before solving. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–6 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 7 | 2 | NY-1.OA.1 |
| Fluency | 8 | 1 | NY-1.OA.4, NY-1.OA.6a |
| | 9–12 | 1 | NY-1.NBT.2 |

# Center Choice Time

Presentation Screen X


**Short on time?** Consider omitting the Center Choice Time.

**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 9 – Add Within 100 With Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add 2 numbers, with and without composing a ten, to practice strategies for addition within 100.

### Materials

- centimeter cubes (two per pair), two-color counters **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Target Numbers


**Stage 1 – Add Ones**
**Pairs** | **15 min** | NY-1.NBT.4

Students add one-digit numbers to two-digit numbers, sometimes composing a new ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Target Numbers

**Stage 2 – Add Tens or Ones**
**Pairs** | **15 min** | NY-1.NBT.2, NY-1.NBT.4

Placeholder for Center Icon

## Differentiation | Teacher Moves

Students choose to add one-digit numbers or two-digit multiples of ten to two-digit numbers, sometimes composing a ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

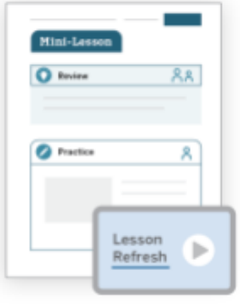
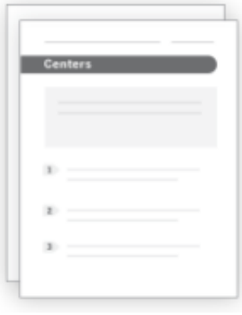
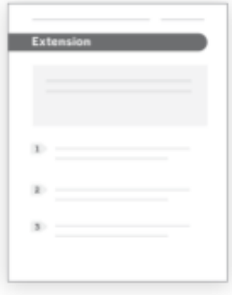
- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

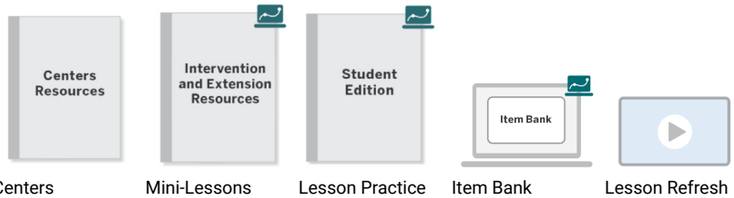
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 12**

# Last Minute Preparations

## Decomposing Addends to Add by Place and Make a Ten

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


Let's help Carmina add bags of wazzle-squash crisps.

## Focus and Coherence

### Today's Goals

1. **Goal:** Add 2 two-digit numbers, with and without composing a ten.
2. **Language Goal:** Explain the steps taken in a partially solved addition problem. **(Speaking and Listening)**
3. **Language Goal:** Explain the reasoning for choosing a particular addition strategy. **(Writing)**

Students interpret a partially solved addition problem in which one of the two-digit addends has been decomposed by place. They complete the problem and share and compare methods to notice that, sometimes, it can be helpful to break an addend into more than one part to make a ten. Next, students find the sums of 2 two-digit numbers, with and without composing a ten, to notice that they can think about the addends before finding sums to make strategic decisions about how to solve. **(MP7)**

### Prior Learning

In Lesson 11, students reasoned about whether a new ten would be composed when adding two values and applied that understanding to reason about the sums of 2 two-digit numbers.

### Future Learning

In Lesson 13, students will explore the use of compensation to add 2 two-digit numbers.

## Rigor and Balance

- Students develop their **conceptual understanding** of adding 2 two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *addend*
- *a one/ones*
- *a ten/tens*

## Standards

### Addressing

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP7

### Building On

| | |
|---|---|
| **NY-1.NBT..2** | |

**We are a math community.**
What can mathematicians do when they have different ideas?

Support students in building their ***mathematical community*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.NBT.4, NY-1.NBT.1

## Warm-Up Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 10. As the count is displayed, students may notice patterns or structures in the counts such as the change in the amount of digits between 90 and 100, and consider why those patterns or structures show up. **(MP7)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students interpret a partially solved addition problem in which one addend has been decomposed by place. Then, students complete the problem and share and compare their strategies, including decomposing an addend again to make a ten.

**Additional Prep** Assemble: towers of 10

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students have an opportunity to practice addition strategies as they find sums of 2 two-digit numbers. They reflect on their strategy choices and discuss how noticing if they can make a ten can help them choose which strategies to use when finding sums.

**Additional Prep** Assemble: towers of 10

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how addends can be decomposed in more than one way to find the sum of 2 two-digit numbers and that addends can be broken into more than 2 parts to make a ten.

SE Print inset

Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *How Close?, Stage 3*, in which they apply their place value understanding to create 2 two-digit addends to find sums that are as close to 100 as possible.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBiBJTeILy0k68-XYrVqAgSKGPnmgMI2QU/edit#slide=id.g116259214b1_0_0

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF (optional), Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up Choral Count

**Purpose:** Students count by 10 up to 110 to notice patterns when counting by 10.

Presentation
Screen X


## Choral Count

Count aloud with your classmates by 10.

10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ____

## Launch

**Use the Choral Count routine.**

X-X "Let's count by 10, starting at 10 and ending at 110.

**Display** each number as students count.

**Ask:**

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

## Connect

X-X **Record** students' responses as they share. Consider highlighting different patterns using different colors.

**Say**, "Make a prediction about the number that will go in the box."

**Ask,** "How do you know?"

**Students might say . . .**

I notice that every number ends with zero.

I notice some numbers have 2 digits and some numbers have more than 2 digits.

I notice the digit in the tens place of each number becomes greater by 1 until the number 100.

I notice the numbers 10 and 110 both end with 10.

Print Lesson | Pairs | 15 min

# Activity 1 Wazzle-squash Crisps

**Purpose:** Students analyze incomplete work in which one addend has been decomposed by place to share and compare strategies for completing the problem to find the sum.

Presentation Screens X–X


## Materials

- (optional) Activity 1 PDF (for display), Graphic Organizer PDF, *Tens and Ones Mat* (one per pair) **(Lesson Resources)**
- connecting cubes (towers of 10 and single cubes, optional) **(Manipulative Kit)**

## Launch

Launch Storyboard Art FPO

X–X **Say,** "As Carmina and Aunt Marta each sealed their final bag of crisps to serve at the fair, Carmina wondered how many bags she and Aunt Marta had made in all. Carmina began to add 25 and 48, but did not complete her work."

**Read aloud** the introduction and Problems 1 and 2.

**Provide** access to connecting cubes and the *Tens and Ones Mats*.

[A] **Accessibility: Conceptual processing** As students discuss Problem 1, display Carmina's work and annotate it with student thinking by highlighting or circling parts of her work and making connections to students' words and ideas.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What tools might help you model what Carmina did first?"
- Ask, "What do you notice about how Carmina broke apart the number 25?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Problem 2.

**[L] MLR7: Compare and Connect**

**Invite students to share** different methods for completing Carmina's problem. Select and sequence the responses in the order shown in rows 2 and 3 in the *Differentiation* table. Alternatively, you may display the Activity 1 PDF.

**Use the Think-Pair-Share routine.** Ask:

- "What is the same about the strategies used to complete the problem?"
- "What is different about the strategies used to complete the problem?"

**Say,** "In both examples, 5 from 25 was added to 68. In one example, 5 was added by counting on from 68. In the other example, 5 was broken into 2 and 3. Then 2 was added to 68 before adding the remaining 3."

**Ask,** "Why might someone want to break 5 into 2 and 3 when solving this problem?"

**Say,** "Because 68 + 2 is 70, 2 could be added first to make a ten, instead of adding 5 by counting on. Then add 3 more."

[EL] **Multilingual/English Learners:** Use gestures to model, and distinguish, the language of breaking a number into parts, making a ten, and counting on.

**Key Takeaway:** Say, "You can break addends into parts when finding sums. When deciding what parts to break an addend into, think about parts that could make a ten."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the sum without using Carmina's first step. | 20 + 40 = 60<br>60 + 5 = 65<br>65 + 8 = 73 | Ask, "How could you use Carmina's work to find the sum?" |
| Count on 5 to find the sum. | 68 + 5<br>68, 69, 70, 71, 72, 73<br>68 + 5 = 73 | Ask, "What is another way to complete Carmina's work?" |
| Decompose 5 to make a ten to find the sum. | 68 + 2 = 70<br>70 + 3 = 73 | Ask, "How did you decide to break 5 into 2 and 3?" |

Print Lesson | Pairs | 15 min

# Activity 2 Choosing Strategies

**Purpose:** Students find the sums of 2 two-digit numbers to practice strategies, including those explored in Activity 1, and to reflect on their choice of strategies.

Presentation
Screens X–X

## Materials

- Graphic Organizer PDF, *Tens and Ones Mat* (optional) **(Lesson Resources)**
- connecting cubes (towers of 10 and single cubes, optional) **(Manipulative Kit)**

**Short on time?** Consider omitting Problem 4 and having students answer the problem orally in the Connect.

## Launch

Launch
Storyboard Art
FPO

X–X **Use the Think-Pair-Share routine.** Ask, "What strategies for adding 2 two-digit numbers would you like to try today?"

**Provide** access to connecting cubes and the *Tens and Ones Mats*.

**Read aloud** the directions and Problems 1–4.

**[EL] Multilingual/English Learners:** Strategically pair students with partners who speak the same primary language. Allow students to share and receive feedback in their primary language before sharing in English.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 4**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What strategy did you tell your partner that you wanted to try today?"
- Ask, "What tools could you use to help you find the sum?"

**[L] MLR1: Stronger and Clearer Each Time**
After students complete Problem 4, have them meet with 1 or 2 other students, or pairs of students, to share their responses. Encourage listeners to ask clarifying questions using stems, such as:

- "What do you mean by . . .?"
- "Can you tell me more about . . .?"

Have students revise their responses based on the feedback they receive.

## Connect

Connect
Storyboard Art
FPO

X–X **Display** Problems 2 and 3.

**Use the Think-Pair-Share routine.** Ask:

- "What do you notice about the amount of ones in each of these expressions?"
- "How might noticing that there are enough ones to make a new ten in Problem 2 help you choose a strategy for solving?"
- "How might noticing that there are *not* enough ones to make a new ten in Problem 3 help you choose a strategy for solving?"

**Key Takeaway:** Say, "Noticing if it will be possible to make a ten before adding can help you choose a strategy for finding the sum of 2 two-digit numbers."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Indicate that they used the same strategies in both problems. | Yes, I counted on by tens and ones because I always get the right answer when I use that strategy. | Ask, "Why might someone choose to solve these problems using different strategies?" |
| Indicate that they did not use the same strategies to solve the problems because they made decisions that were unrelated to the addends in the expressions. | No, I used different strategies because I wanted to use the strategy that I always use and then I wanted to try something new. | |
| Indicate that they did not use the same strategies to solve both problems because they made decisions related to the addends in the expressions. | No, because I noticed I could break apart an addend to make a ten in Problem 2. For Problem 3, I noticed I would not need to make a ten, so I just added ones and ones and tens and tens. | **Extend Thinking**<br>Ask, "What do you think is important to notice about addends before deciding which strategy to use to solve?" |

Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** Addends can be decomposed in more than one way to find a sum. When finding sums, it can be helpful to decompose addends strategically.

Presentation Screens X–X


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

25 + 46

X–X **Use the Think-Pair-Share routine.** Ask:

- "How could you break 46 into more than two parts to find the sum of 25 + 46?"
- "Why might it be helpful to break an addend into more than two parts?"

**Say,** "There are many ways to break addends into parts to find the sums of 2 two-digit numbers. Sometimes it can be helpful to break addends into more than two parts to make a ten."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Add 2 two-digit numbers, with and without composing a ten.
2. **Language Goal:** Explain the steps taken in a partially solved addition problem. **(Speaking and Listening)**
3. **Language Goal:** Explain the reasoning for choosing a particular addition strategy. **(Writing)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.4 |
| | 2 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 3 | 2 | NY-1.OA.1 |
| Fluency | 4 | 1 | NY-1.OA.4, NY-1.OA.6a |
| | 5–8 | 1 | NY-1.NBT.2 |

Print Lesson | Pairs | 15 min

# Introducing the Center
## How Close?, Stage 3

**Purpose:** Students create 2 two-digit addends to apply their place value understanding to find sums that are as close as possible to 100.

Presentation Screens X–X


### Materials
- number cards (0–9, one set per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

## Launch

Launch Storyboard Art FPO

X–X **Demonstrate** how to play *How Close?*.

**Display** the number cards and the Recording Sheet.

**Say:**

- "I am going to draw 7 cards."
- "Then I will choose the cards I want to use to make 2 two-digit addends. I want to choose the cards carefully because I want my sum to be as close to 100 as possible."

**Use the Think-Pair-Share routine.** Ask, "Which cards should I choose?"

**Record** 2 two-digit addends on the Recording Sheet and model finding and recording the sum.

**Say:**

- "In each round, partners take turns drawing cards, making 2 two-digit addends, and finding the sums. The partner that has the sum that is closest to 100 earns a point."
- "At the end of the game, the partner with more points wins."

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students are reasoning about which cards to select and what strategies they are using to add.

## Connect

Connect Storyboard Art FPO

X–X **Ask,** "How did you decide which cards to select?"

**Display** the number cards 3, 4, 8, 1, 2, 5, 7.

**Say,** "For your first addend, imagine you selected 2 and 5 to make 52."

**Invite students to share** which 2 cards they would select to make the other addend and why.

**Key Takeaway:** Say, "You can use what you know about tens and ones to strategically choose addends so that you can find a sum that is close to 100."

**Centers Resources**


**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . 5 1 8 3 4 2 7 | Provide support . . . |
|---|---|---|
| **Almost there** Create addends with any 4 cards. | 31 + 27 | Ask, "Since you want a sum that is close to 100, what could you consider as you choose each card?" |
| Consider the tens places when creating each addend. | 51 + 42 | Ask, "How could you select number cards that have a sum that is closer to 100?" |
| Consider the tens and ones places when creating each addend. | 51 + 48 | Ask, "How did you decide which numbers to select?" |

# Differentiation Use after Lesson 12

**Lesson Goal:** Text goes here

## Support

Provide targeted intervention for students by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson 12 Refresh Video**

**If Students:** If statement goes here.

**Respond:**

- **Mini-Lesson** | 15 min
  *Mini-Lesson Title Goes here*
- **Lesson X Refresh Video**
- Students will have more opportunities to __ in Lesson(s) X. (If this/these lessons come in a later unit, replace "Lesson(s)" with "Unit(s)". Remove the (s) if the lesson/unit is singular.)


## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students:** If statement goes here.

**Respond:**

- **Centers** | 15 min
  *Cover Up*, Stage 9
  *Target Numbers*, Stages 1 and 2
- **Lesson 12 Practice** | 15 min
- **Item Bank**


## Stretch

Challenge students and extend their learning with these resources.

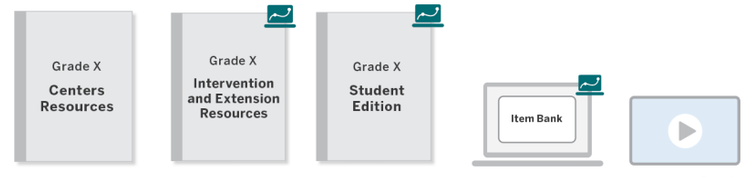
**If Students:** If statement goes here.

**Respond:**

- **Sub-Unit 3 Extension Activities** | 15 min


**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh Video

## Professional Learning

In this unit, you have used the *Collect and Display* routine to help students develop precise language that they can use to communicate their ideas. How can you encourage students to revisit the *Words for Addition Strategies* chart as they continue to share and compare strategies for finding sums?

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 13**

# Wazzle-Squash Festival

## Using Compensation to Add Within 100

Let's find sums by changing addends.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Find the sums of 2 two-digit numbers, with and without composing a ten.
2. **Language Goal:** Justify whether given equations can be used to find the sum of 2 two-digit numbers. **(Speaking and Listening)**

Students represent and solve an *Add To, Result Unknown* story problem and then analyze and discuss a compensation strategy– changing 1 addend and adjusting the sum accordingly– shown for solving the same problem. Then they examine sets of equations and justify whether the equations correctly compensate for the increase or decrease of 1 addend. Though students are not required to use compensation as a strategy for finding sums, this lesson allows them to develop their understanding that considering the numbers before solving can be helpful for choosing a strategy.

### Prior Learning

In Unit 3, students explored using compensation to find sums within 20. In Lesson 12, students considered strategies for decomposing addends to add 2 two-digit numbers.

### Future Learning

In Lesson 14, students will have an opportunity to practice different strategies for addition within 100.

## Rigor and Balance

- Students develop their **conceptual understanding** of adding 2 two-digit numbers.

## Vocabulary

**Review Vocabulary**

- *addend*
- *equation*
- *a one/ones*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.4**

Add within 100, including • a two-digit number and a one-digit number, • a two-digit number and a multiple of 10. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten. Relate the strategy to a written representation and explain the reasoning used.

**Mathematical Practices:** MP6, MP7, MP8

**Building On**

| | |
|---|---|
| **NY-1.NBT.2** | |

**I can be all of me in math class.**
How are you and a character from the Unit Story alike?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard: NY-1.NBT.4

## Warm-Up **Fluency** Whole Class | 5 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(MP7, MP8)**

SE Print inset

Screens X–X

## Activity 1 Independent | 15 min

Students solve an *Add To, Result Unknown* story problem to apply their understanding of addition within 100. They then analyze and discuss a compensation strategy to consider how changing an addend could be helpful for finding a sum. **(MP6, MP8)**

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Small Groups | 20 min

Students participate in a **Gallery Tour** to analyze compensation strategies for adding 2 two-digit numbers that involve changing 1one addend and then adjusting the sum. They interpret equations and justify whether they correctly represent a compensation strategy. **(MP6, MP8)**

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on compensating through changing both addends .

SE Print inset

Screens X–X

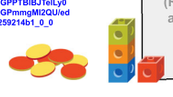
## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice strategies for addition within 100.

- Cover Up, Stage 9
- How Close?, Stage 3
- Target Numbers, Stage 3

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeILy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0



Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, *Changing an Addend Tour* Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes
- **Classroom materials:** markers, *Words to Describe Addition Strategies* chart (from prior lessons)

Print Lesson | Whole Class | 5 min

# Warm-Up Number Talk

**Fluency**

**Purpose:** Students find the value of addition expressions within 20 to prepare for applying those strategies when they add within 100.

Presentation Screen X


A

7 + 10

17

B

7 + 8

15

C

7 + 12

19

**Why these problems?** These expressions lend themselves to using compensation to add.

## Launch

**Use the Number Talk routine.**

X–X **Display** 1 expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X–X **Record** sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions B and C's relationship to Expression A.

**Ask,** "How and why might someone use Expression A to help solve Expression B? Expression C?"

**Students might say . . .**

A: I know 7 + 10 = 17.

B: I thought of it as 7 + 10, which is 17. Then I took 2 away because 8 is 2 less than 10. 17 – 2 = 15.

C: I imagined the 12 was 10 because I know 7 + 10 = 17. Then I added 2 more because 12 is 2 more than 10. 17 + 2 = 19.

Print Lesson | Independent | 15 min

# Activity 1 Wazzle Toss

**Purpose:** Students represent and solve an *Add to, Result Unknown* story problem and then analyze a given strategy for solving the problem to explore a compensation strategy for adding within 100.

Presentation
Screens X–X

## Launch

Launch Storyboard Art FPO

**Materials**

**Lesson Resources:**
- Provide students with access to the Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

X–X **Say:**

- "As Carmina and Aunt Marta toured the festival stalls, they heard laughter and cheers coming from a grassy field up ahead. A big sign overhead read: Wazzle Toss!"
- "Teams of two people were tossing a ball back and forth. They started close and moved a bit farther away from each other after each catch. As they played, each teammate kept track of their own catches, or points. The game ended when the ball fell on the ground. Carmina and Aunt Marta decided to play!"

**Read aloud** the directions and Problem 1. Have students work on Problem 1 for 2–3 minutes independently before reading aloud Problem 2. Have students discuss Problem 2 with a partner for 3–4 minutes.

**Provide** access to connecting cubes and the *Tens and Ones Mats*.

**[A] Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by checking in with and providing students feedback on their responses after they complete each problem.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- For Problem 2, ask, "What do you notice about what Carmina did first to solve the problem?"
  - Ask, "What do you notice about the numbers that Carmina added?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Carmina's strategy.

**Invite students to share** their responses for Problem 2. Select and sequence their responses in the order shown in the *Differentiation* table.

**Ask** (if not yet mentioned during the discussion):

- "Why do you think Carmina started with 37 + 40?"
- "Why did she subtract 2?"

**Say**, "Carmina changed the 38 to 40 because she knew how to find the sum of 38 + 40 without tools or drawings. She added 2 to 38 to make 40, so she had to subtract 2 from 77."

**Key Takeaway:** Say, "You can add 2 two-digit numbers by thinking about how you can change an addend to an amount of tens. If you make one addend greater by some amount, you need to subtract that amount from the sum."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Explain that Carmina did something different than they did. | I notice Carmina's strategy is different from my strategy. | **Strengthen:** Ask, "What did Carmina do first?" |
| Explain that Carmina changed 1 of the addends. | I notice Carmina added 37 and 40 even though 40 is not in the problem. She still got the right answer. | **Strengthen:** Ask, "Why do you think Carmina changed 1 of the addends?" |
| Explain that Carmina used compensation. | I notice Carmina added 37 + 40 first. But she was finding the sum of 37 + 38, so she subtracted 2. | **Stretch:** Ask, "Carmina chose to start with 37 + 40. Could Carmina have used this same strategy but started with a different expression? How do you know?" |

Print Lesson | Small Groups | 20 min

# Activity 2 Changing an Addend Tour

**Purpose:** Given an expression, students interpret equations, some accompanied by representations, to justify whether those equations can be used to find the sum.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Display** each of the posters in order, by letter, in various places in the classroom.

**Assign** each group of students to 1 poster.

**Read aloud** the directions for Problems 3 - 8.

**Say**, "First take time to think about each poster on your own. Then discuss your ideas with your partner. Use the sentence frames to help discuss your thinking with your group. When you finish discussing, rotate to the next poster." Have students tour for 8-10 minutes before reading aloud Problem 9.

[EL] **Multilingual/English Learners:** Use intentional grouping so students with different English language proficiency levels can interact and have an opportunity to listen to peers with more advanced proficiency.

### Materials

**Lesson Resources:**
- Display each Poster from the Activity 2 PDF in order by letter in various places around the classroom with enough space for students to gather.

**Manipulative Kit:**
- Provide students with access to connecting cubes (as needed).

**Classroom materials:**
- Use markers to add language to the *Words to Compare* chart during the Connect.

(Lesson

**Short on time?** Consider modifying the activity so that groups visit 4 posters rather than 6. You may also consider omitting Problem 9.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

While students complete the activity, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What do you notice about the expression at the top of the poster and the equation used in the first step?"
- Ask, "Which number was changed? Why do you think it was changed to that amount?"

## Connect

Connect Storyboard Art FPO

X–X **Ask,** "How would you describe the strategy shown on the posters?"

**Say,** "The posters all show an addend being changed to an amount of tens."

**Display** Posters A and F.

**Use the *Think-Pair-Share* routine.** Ask, "Why was subtraction the final step on Poster A but addition the final step on Poster F?"

**Record** language students use to describe compensation on the *Words to Describe Addition Strategies* chart, such as "change an addend to an amount of tens" and "if you make an addend greater, be sure to subtract at the end." Consider including an example next to the strategy.

**Say,** "On Poster A, the addend, 48, was made greater by 2 when changed to 50, so 2 was subtracted to find the sum in the final step. On Poster F, the addend, 22, was made less by 2 when changed to 20, so 2 was added back on to find the sum in the final step."

**Key Takeaway:** Say, "To decide whether you need to add or subtract from the sum, you need to think about how you changed the addend"

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . .<br>Problem 3, Poster C | Provide support . . . |
|---|---|---|
| **Almost there** Agree. | I agree because they added 1 to change 19 to 20, so they have to do 77 + 1 to find the answer. | **Support:** Encourage modeling with connecting cubes, using a different color for the 1 that was added to 19. |
| Disagree because the sum is incorrect. | I disagree because 57 plus 10 is 67 and 67 plus 9 is 76, so the sum is 76, not 78. | **Strengthen:** Ask, "You found the sum using a different strategy. What steps were taken to try to find the sum in the strategy shown on the poster?" |
| Disagree because an addend increased by 1 and the sum also increased by 1. | I disagree because they added 1 to change 19 to 20, so they have to subtract 1 from the sum to get the answer, not add it. | **Stretch:** Ask, "Could 57 have been changed? Why do you think this person chose to change 19?" |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** One strategy for finding the sum of 2 two-digit numbers is using compensation, or changing an addend and adjusting the sum accordingly.

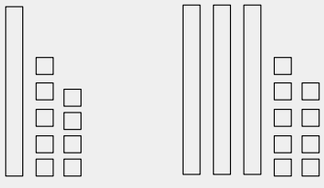
**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)

19 + 39



X–X

**Use the Think-Pair-Share routine.** Ask, "You saw many examples of changing 1 addend to help find the sum. How could you solve 19 + 39 by changing both addends?"

**Record** 20 + 40 = 60. .

**Use the Think-Pair-Share routine.** Say, "Discuss what the next step should be with a partner."

**Record** 60 - 1 - 1 = 58 or 60 - 2 = 58.

**Say,** "Thinking about the addends before solving is helpful when you are deciding which addition strategy you want to use. Sometimes it can be helpful to change 1 or both addends to a new number to help find the sum."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Find the sums of 2 two-digit numbers, with and without composing a ten.
2. **Language Goal:** Justify whether given equations can be used to find the sum of 2 two-digit numbers. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.NBT.4 |
| | 2–5 | 1 | NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 6 | 2 | NY-1.OA.1 |
| | 7 | 1 | NY-1.OA.4 |
| | 8–11 | 1 | NY-1.NBT.2 |

# Center Choice Time

Presentation
Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 9 – Add Within 100 With Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add 2 numbers, with and without composing a ten, to practice strategies for addition within 100.

**Materials**

- centimeter cubes (two per pair), two-color counters **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## How Close?


**Stage 3 – Add to 100**
**Pairs** | **15 min** | NY-1.NBT.4

Students create 2 two-digit addends to apply their place value understanding to find sums that are as close to 100 as possible.

**Materials**

- number cards (1–9, one per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Target Numbers

**Stage 3 – Add Two-digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.4

Placeholder for Center Icon

Students add 2 two-digit numbers, sometimes composing a new ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

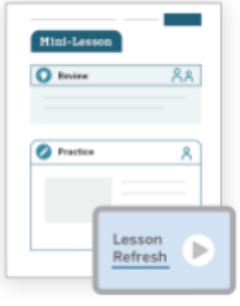
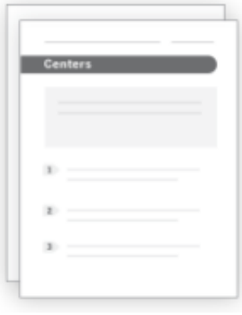
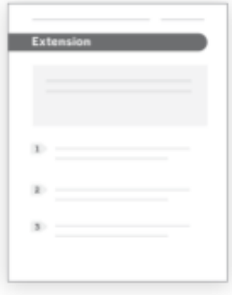
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

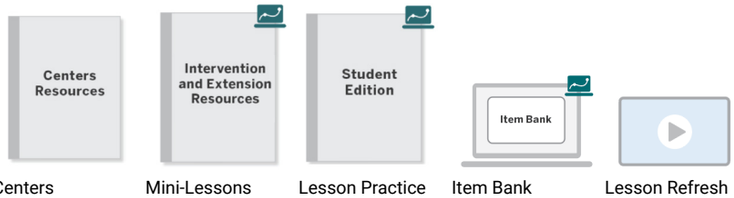
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 5 | **LESSON 14**

# Wazzle-Squash Data

## Using Addition Within 100 to Interpret Data

Let's ask and answer questions about wazzle-squash data.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Use addition within 100 to interpret a data representation.
2. **Language Goal:** Ask and answer questions about a data representation. **(Speaking and Listening)**

Students apply their understanding of data and addition within 100 to interpret data about wazzle-squash. They ask questions about the data that require finding sums and then answer their own questions. Students then apply the same skills to answer given questions about two categories of data. **(MP2)**

### Prior Learning

In Unit 2, students asked and answered questions about 2 categories of data and solved story problems about data. In Sub-units 2 and 3, students found sums within 100, with and without composing a ten.

### Future Learning

In Grade 2, students will be expected to fluently add within 100 and interpret and answer questions about picture and bar graphs.

## Rigor and Balance

- Students **apply** their understanding of interpreting data and addition within 100 to solve real-world problems.

## Vocabulary

**Review Vocabulary**

- *category*
- *data*
- *a one/ones*
- *sum*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.MD.4**

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

*Also Addressing*: NY-1.NBT.4

**Mathematical Practices:** MP2, MP3, MP6

| Building On | Building Toward |
|---|---|
| NY-1.NBT.2 | NY-2.NBT.5<br>NY-2.MD.10 |

**I can be all of me in math class.**
The storm created a challenging problem. When have you felt challenged in math class?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.MD.4, NY-1.NBT.4

## Warm-Up Whole Class | 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about wazzle-squash data represented with tally marks. (MP3, MP6)

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students interpret data about foods made from wazzle-squashes and generate questions about the data as a class. Then pairs choose one of the questions to answer using addition within 100 to solve.

**Additional Prep Prepare:** *Questions About Wazzle-squash Data* chart; **Assemble:** towers of 10 cubes

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students interpret data about wazzle-squash seeds that are represented with one- and two-digit numbers. They then answer questions about the data by finding the sum of the data points in 2 categories.

**Additional Prep** Assemble: towers of 10

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on the addition strategies they have explored in this unit and identify strategies they want to try or continue to practice.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice strategies for addition within 100.

- Cover Up, Stage 9
- How Close?, Stage 3
- Target Numbers, Stage 3

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeILy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Graphic Organizer PDF, *Tens and Ones Mat* (optional)
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** chart paper, markers, *Questions About Wazzle-squash Data* chart (teacher made)

Print Lesson | Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students examine a table of data represented with tally marks to prepare to generate questions that can be answered using the data.

Presentation Screen X


Containers of Wazzle-squash Food

| Wazzle-squash food | Number of containers |
|---|---|
| butter | 𝍸 𝍸 𝍸 𝍸 \|\| |
| crisps | 𝍸 𝍸 𝍸 𝍸 𝍸 \|\|\|\| |
| seeds | 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 \| |

## Launch

X–X **Display** the image.

**Use the Notice and Wonder routine.**

**Ask,** "What do you notice? What do you wonder?"

**Use the Think-Pair-Share routine.**

## Connect

X–X **Record** students' responses as they share.

**Ask:**

- "What do you know about tally marks?"
- "How have you counted tally marks in the past?"

**Students might say . . .**

I notice there are 3 categories of data.

I notice there are tally marks.

I wonder how many seeds are in each container.

I wonder to whom the food is being donated.

Print Lesson | Pairs | 15 min

# Activity 1 Questions About Donations

**Purpose:** Students apply their understanding of place value, addition within 100, and data to ask and answer questions about data.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **[L] Note:** This activity is structured using the MLR5: *Co-craft Questions* routine.

**Display** the table of data from the Student Edition.

**Say,** "The town was preparing to donate containers of wazzle-squash butter, crisps, and seeds to neighboring communities. As Carmina gathered the containers, she wondered how many there were. She decided to collect some information to keep track of the amounts of containers they were donating."

**Use the Think-Pair-Share routine**. Ask, "What counting strategies might help you interpret the data?"

**Provide** access to connecting cubes and *Tens and Ones Mats*.

**Read aloud** the directions and Problem 1.

**Invite students to share** their responses. Record and display students' responses on the *Questions About Wazzle-squash Data* chart and consider placing a check mark next to similar questions.

**[EL] Multilingual/English Learners:** Foster students' metalinguistic awareness by using a think-aloud strategy to model how to craft questions about two categories of data after students have had time to come up with their own questions. Invite students to compare their questions to the modeled questions.

**Read aloud** Problems 2 and 3.

### Materials

**Lesson Resources:**
- Provide students with access to the Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

**Classroom materials:**
- Use chart paper and markers to prepare and add student responses to the *Questions About Wazzle-squash Data* chart during the Launch.

**Short on time?** Consider omitting Problem 2 and allowing students to share their question verbally with a partner.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "Which two categories of data do you want to ask a question about?"
- Ask, "Which question stem do you want to try?"

## Connect

Connect Storyboard Art FPO

X–X **Display** the table of data from the Student Edition.

**Invite students to share** their responses for Problems 2 and 3. Consider selecting students to share who asked and answered different questions.

**Use the Think-Pair-Share routine.** Ask:

- "How can addition be used to interpret data?"
- "Why might someone want to find the sum of more than one category of data?"

**Key Takeaway:** Say, "In this unit, you tried out new strategies to help you find sums within 100. You can use those same strategies to answer questions about data."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Ask a question about one category of data. | How many containers of butter are there? | **Support:** Ask, "What questions can you ask that you can answer by finding the sum of two categories?" |
| **Almost there** Ask a question about two categories of data that can be answered without using addition. | Are there more containers of butter or crisps? | |
| Ask and answer a question about the total amount of data points in two categories of data. | How many containers of butter and seeds are there altogether? | **Strengthen:** Ask, "Why might it be helpful for someone to find the sum of more than one category of data?" |

Print Lesson | Pairs | 15 min

# Activity 2 Questions About Seeds

**Purpose:** Students apply their understanding of place value, addition within 100, and data to answer questions about two categories of data.

Presentation
Screens X–X

## Launch

Launch Storyboard Art FPO

X–X **Say,** "Although the town donated many of the wazzle-squash seeds, they kept some seeds to plant in future years. Unlike many other seeds, seeds from wazzle-squashes are easy to identify because they have the same vibrant colors as the squashes they come from. The town decided to save purple, black, and orange wazzle-squash seeds because those were everyone's favorite squashes."

**Display** the table of data from the Student Edition.

**Provide** access to connecting cubes and *Tens and Ones Mats*.

**Read aloud** the directions and Problems 1–3.

[A] **Accessibility: Executive functioning** Guide processing by inviting students to plan a strategy for showing their thinking and share their plan with their partner before solving. This will give students time to brainstorm different solution pathways.

### Materials

**Lesson Resources:**
- Provide students with access to the Graphic Organizer PDF, *Tens and Ones Mat* (optional).

**Manipulative Kit:**
- Provide students with access to connecting cubes (optional).

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After students have completed **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "Which numbers from the data table are needed to solve this problem?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Problem 3.

**Invite students to share** their responses. Select and sequence their responses in the order shown in the *Differentiation* table.

**Say,** "Today, you used your understanding of addition and place value to answer questions about data."

**Use the Think-Pair-Share routine.** Ask:

- "What strategies do you use most often when adding two numbers?"
- "What addition strategies have you tried before but want to practice more?"
- "What addition strategies do you want to try for the first time?"

**Key Takeaway:** Say, "There are many ways to add 2 numbers. You might be more familiar with some strategies and less familiar with others. It is important to continue to try out and practice new strategies when finding sums."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count on or add by place. | 29, 39, 49, 59, 60, 61, 62, 63, 64, 65, 66<br><br>20 + 30 = 50<br>9 + 7 = 16<br>50 + 16 = 66 | **Strengthen:** Ask, "In this unit, we explored some strategies in which one or more addends is changed to help find the sum. How could you change this expression to solve it another way?" |
| Use decomposition or compensation. | 29 + 37<br>30 7<br>29 + 30 = 59<br>59 + 7<br>1 6<br>59 + 1 = 60<br>60 + 6 = 66<br><br>37 + 30 = 67<br>67 - 1 = 66 | Ask, "What other addition strategies could you try with this problem that you haven't tried before or would like to practice?" |

Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** To deepen understanding of addition concepts and to build fluency, it is helpful to continue to use addition in a variety of contexts and to try out new strategies.

Presentation Screens X–X


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

28 + 55

X–X **Use the Think-Pair-Share routine**. Ask, "Today you used addition to interpret data. What are some other reasons that you might need or want to add 2 numbers?"

**Say,** "As you continue to find the sum of 2 numbers at home, at school, or in your community, consider trying out new strategies and practicing strategies that you are not as familiar with."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Use addition within 100 to interpret a data representation.
2. **Language Goal:** Ask questions that can be answered with a data representation. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 2 | NY-1.MD.4, NY-1.NBT.4 |
| **Spiral Review** | | | |
| | 3 | 2 | NY-1.OA.1 |
| | 4 | 1 | NY-1.OA.4 |
| | 5–8 | 1 | NY-1.NBT.2 |

# Center Choice Time

Presentation
Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Cover Up


**Stage 9 – Add Within 100 With Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add 2 numbers, with and without composing a ten, to practice strategies for addition within 100.

**Materials**

- centimeter cubes (two per pair), two-color counters **(Manipulative Kit)**
- Directions, Recording Sheet, Gameboard (A, B) **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## How Close?


**Stage 3 – Add to 100**
**Pairs** | **15 min** | NY-1.NBT.4

Students create 2 two-digit addends to apply their place value understanding to find sums that are as close to 100 as possible.

**Materials**

- number cards (1–9, one per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Target Numbers

**Stage 3 – Add Two-digit Numbers**
**Pairs** | **15 min** | NY-1.NBT.4

Placeholder for Center Icon

Students add 2 two-digit numbers, sometimes composing a new ten, to get as close as possible to a target number.

### Materials

- number cards (1–9, one per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

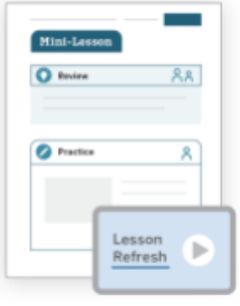
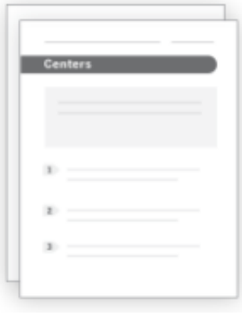
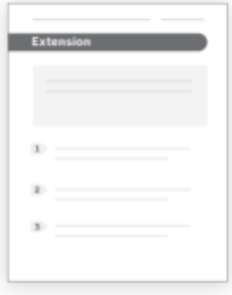
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

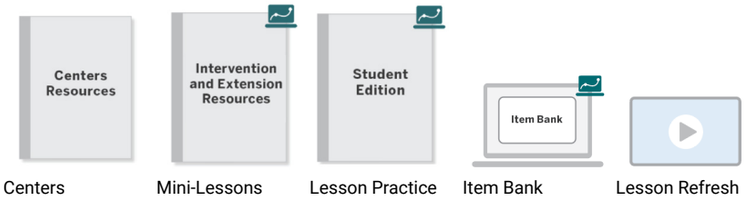
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

Lesson
15

# Money, Money

## Recognizing and Identifying Coins and Their Value

Let's learn about coins and their value.

## Focus and Coherence

### Today's Goals

1. **Goal:** Recognize and identify coins (penny, nickel, dime, and quarter) and their value.
2. **Goal:** Use the cent symbol (¢) appropriately.
3. **Language Goal:** Describe distinguishing characteristics of coins (penny, nickel, dime, and quarter). **(Speaking and Listening)**

Students use the characteristics of coins, such as size, color, words, and pictures, to identify pennies, **nickels**, dimes, and **quarters**. They also learn the value of each coin in **cents**. As they describe specific characteristics of each coin to distinguish them from one another, they construct viable arguments and critique the reasoning of their classmates. **(MP3, 6)**

In Kindergarten, students explored these coins and identified pennies and dimes. In the next lesson, NY Lesson 2, *Dimes and Pennies*, students will find the value of collections of dimes and pennies that are less than 100 cents.

**Note:** The images of the front of the coins in this lesson show the presidents facing to the left. Some coins minted more recently show some of the presidents facing to the right or forward. The images on the back of the quarters in this lesson show an eagle. The back of the U.S. quarter changes frequently. From 2022 through 2025, the U.S. Mint is releasing up to five new circulating quarters each year, as part of the American Women Quarters™ Program. The table shows the women honored in 2022 and 2023. Consider spending some additional class time exploring the U.S. Mint website with your students to learn more about these women.

| Women honored in 2022 | Women honored in 2023 |
|---|---|
| Bessie Coleman | Maya Angelou |
| Edith Kanaka'ole | Dr. Sally Ride |
| Eleanor Roosevelt | Wilma Mankiller |
| Jovita Idar | Nina Otero-Warren |
| Maria Tallchief | Anna May Wong |

## Rigor and Balance

- Students build **conceptual understanding** as they recognize and identify coins (penny, nickel, dime, and quarter) and their value.

## Vocabulary

### New Vocabulary

**cents**
**nickel**
**quarter**

### Review Vocabulary

*dime*
*penny*

## Standards

### Addressing

**NY-1.MD.3.b**

**Recognize and identify coins (penny, nickel, dime, and quarter) and their value and use the cent symbol (¢) appropriately.**

**Mathematical Practices:** MP3, 6

### Building On

**NY-K.MD.4**

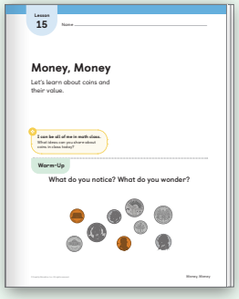
# Lesson at a Glance 60 min

**Standard: NY-1.MD.3.b**

## Warm-Up

Whole Class | 10 min

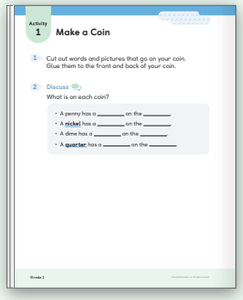
Students use the **Notice and Wonder** routine to activate their prior knowledge about these types of coins.




## Activity 1

Small Groups | 20 min

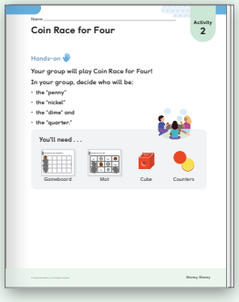
Students glue words and images of coins to blank coins to make a paper coin, recognizing the distinguishing features of coins. They discuss the different characteristics of each type of coin and learn the value of each in **cents**.




## Activity 2

Small Groups | 15 min

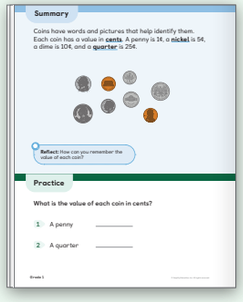
Students play the game *Coin Race for Four*. They continue to develop proficiency in identifying pennies, nickels, dimes, and quarters, and the value of each type of coin.




## Synthesis

Whole Class | 10 min

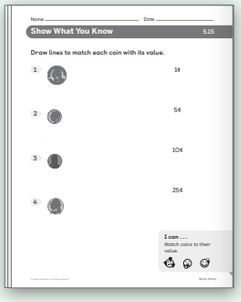
Students review and reflect on how to identify each coin and its value.




## Show What You Know

Independent | 5 min

Students demonstrate their understanding by drawing lines to match each coin to its value.




## Prep Checklist

### This lesson includes:

- Student Edition
- Show What You Know PDF (Optional)

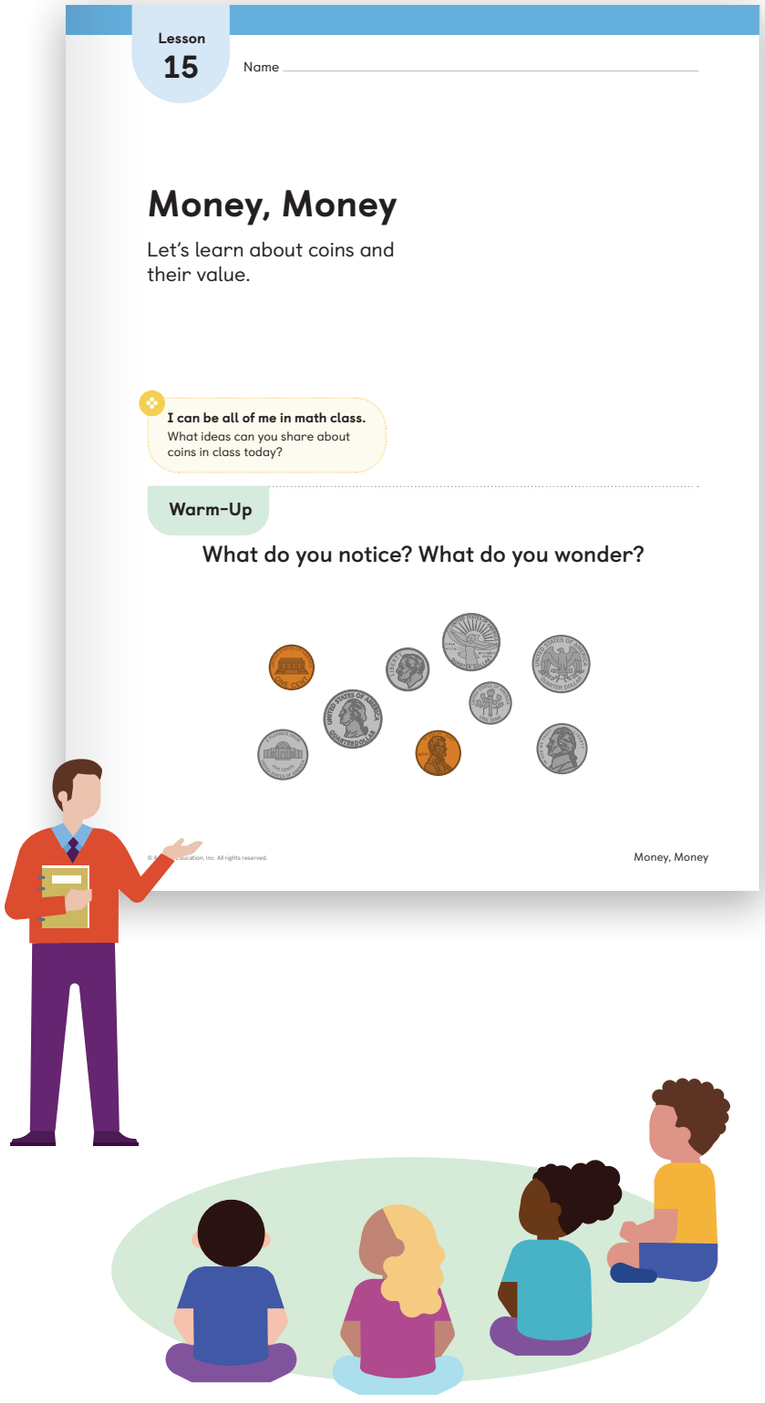
### Additional required materials:

- Visual Display PDF, *Coins*, Activity 1 PDF, *Blank Coins*, Activity 1 PDF, *Coin Words and Pictures*, Activity 2 PDF, *Coin Race for Four Gameboard*, Activity 2 PDF, *Coin Race for Four Mat*
- **Recommended Manipulatives:** connecting cubes, two-color counters
- **Classroom materials:** glue, scissors

Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students look at an image of pennies, nickels, dimes, and quarters to activate their prior knowledge about these types of coins.




## Launch

**Use the Think-Pair-Share routine.** Ask, "What do you notice? What do you wonder?"

## Connect

**Record** students' responses as they share.

**Ask**, "How are these coins alike? How are they different? Have you seen these coins before in school or outside of school?"

**Say**, "This image shows four different coins — the front and back of each kind of coin. It shows a penny, a **nickel**, a dime, and a **quarter**."

ML/EL **Multilingual / English Learners** Point to each coin as you say its name, and whether you are pointing to the *front* or the *back* of each coin.

**Ask:**

- "Look at the three largest images. One of these images shows the front. The other two show the back. Which image do you think is the front? Why do you think so?"
- "At least one image is not like the others. Which image do you think is different? Why do you think so?"

**Say**, "Today, you will explore more about these four types of coins."



### Students might say . . .

*I notice there are 9 coins.*

*I notice some of the coins have heads on them. One coin has a person on it.*

*I notice there are three of the largest coin. I wonder why that is.*

*I wonder how much money this is.*

*I wonder why there are buildings on some of the coins.*

Small Groups | 20 min

# Activity 1 Make a Coin

**Purpose:** Students identify characteristics of each coin and learn the value of a penny, nickel, dime, and quarter.

### Materials

- Visual Display PDF, *Coins*
- Activity 1 PDF, *Blank Coins* (1 per group)
- Activity 1 PDF, *Coin Words and Pictures* (1 per student)
- scissors, glue **(Classroom materials)**

**Short on time?** Consider assigning each student a coin and providing pre-cut coins, words, and pictures to students.

## Launch

**Display** the Visual Display PDF, *Coins* and keep it displayed. Distribute the Activity 1 PDFs, *Blank Coins* and *Coin Words and Pictures*.

**Say**, "Let's fill in the name of each coin together."

**Say**, "You will each make a coin. Decide who will make each type of coin. Cut out your coin and some words and pictures that go on it. Glue these to the front and back of your coin."

**Note:** Not all the words and pictures or varieties of images of the coins that are in circulation are shown on the Activity 1 PDF, *Coin Words and Pictures*. This activity focuses on the *distinguishing* features between the types of coins.

MLR **MLR8 Discussion Supports — Sentence Frames**

Invite students to use the sentence frames from Problem 2. For further support, complete each sentence with "front" or "back."

A **Accessibility: Visual-spatial processing, Fine motor skills** Provide actual coins for students to look at. Provide pre-cut coins, words, and pictures (from the PDFs) to students.

## Monitor

After students complete **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, "What is one thing you know is on your coin? How do you know?"
- Ask, "How are these coins alike? How are they different?"

## Connect

**Say**, "You made four different coins. Each one has features that help you tell them apart."

**Ask**, "What are the words on each coin that might help you identify its value?"

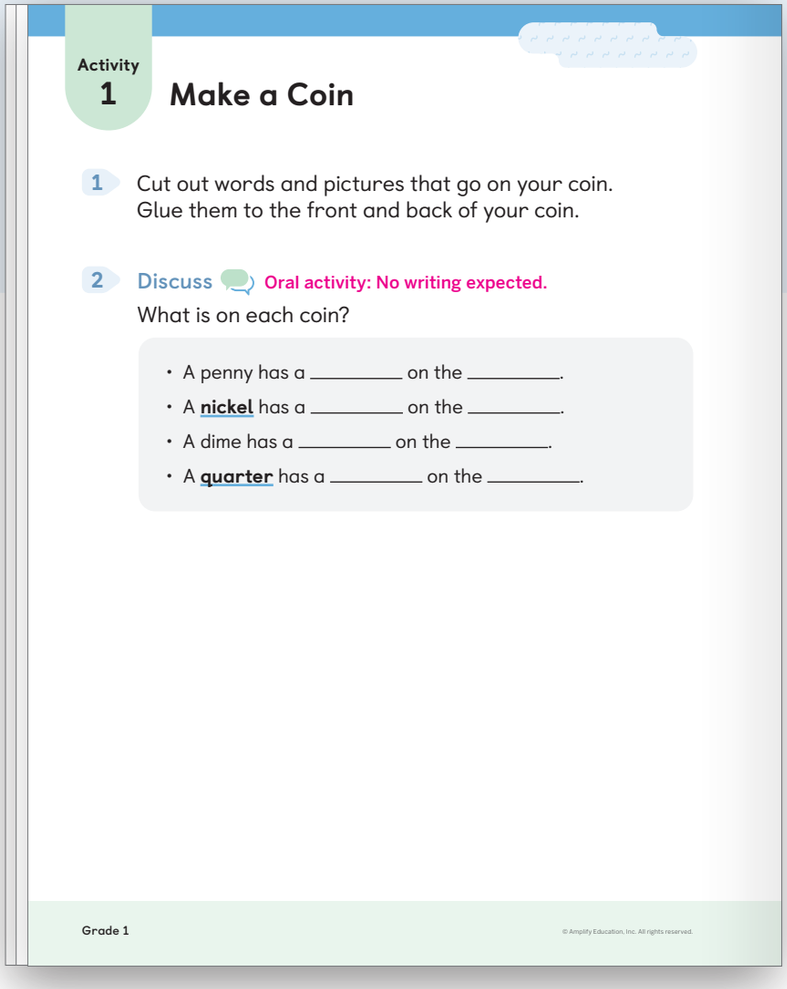
**Record** the ideas students have about "one cent," "five cents," "one dime," and "quarter dollar."

**Say**, "Let's fill in the value of each coin together. The cent symbol is used to show how many cents each coin is worth." Draw or display the cent symbol, (¢). Fill in the value of each coin using the cent symbol.

ML/EL **Multilingual / English Learners** Point to each coin as you say its name and value.

**Key Takeaway:** Say, "Each coin has words and pictures on it that can be used to identify the coin and its value, in **cents**. A penny is 1 cent. A nickel is 5 cents. A dime is 10 cents. A quarter is 25 cents. There are 100 cents in 1 dollar."

Student Edition



Activity 1

## Make a Coin

1 Cut out words and pictures that go on your coin. Glue them to the front and back of your coin.

2 Discuss Oral activity: No writing expected.

What is on each coin?

- A penny has a _____ on the _____.
- A **nickel** has a _____ on the _____.
- A dime has a _____ on the _____.
- A **quarter** has a _____ on the _____.

Grade 1



## D Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**<br>Glue whatever words and pictures they want on their coin to make their own coin. | *I like the leaves and the eagle. I'll put those on my coin.* | **Support** Ask, "Do those match the coin you are creating? Look at the chart to see which words and pictures go on your coin." |
| Know their coin has a head on the front. | *I know that my coin has a head on the front, but I cannot tell which one it should be.* | **Strengthen** Say, "Let's look closely at all of the heads. What types of details do you notice are different about them?" |
| Identify and glue the characteristics for their assigned coin on the front and back of their coin. | *I know that my coin has the building with the round top and the words "five cents" on the back.* | **Stretch** Ask, "What do you think the words 'five cents' mean? What about 'one cent' or 'quarter dollar'?" |

Small Groups | 15 min

# Activity 2 Coin Race for Four

**Purpose:** Students identify pennies, nickels, dimes, and quarters and their value.

## Materials

- Activity 2 PDF, *Coin Race for Four Gameboard* (1 per group)
- Activity 2 PDF, *Coin Race for Four Mat* (1 per group)
- connecting cubes (1 per group), two-color counters (1 per student) **(Recommended manipulatives)**

**Short on time?** Consider playing the game only one time and do not have students trade coins. Or designate a specific number of rolls to see how far students get on the gameboard. The winner is the student closest to the finish line.

## Launch

**Say**, "In your group, decide which player will be the 'penny,' the 'nickel,' the 'dime,' and the 'quarter.'"

Distribute the Activity 2 PDFs, *Coin Race for Four Mat* and *Gameboard*.

**Say**, "On your turn, roll a cube onto the mat. If you land on your coin or the value of your coin, move one space on the gameboard. The first player to move across the finish line wins."

**Say**, "When the game is over, trade coins with someone in your group and play again."

## Monitor

While students complete the activity, refer to the D **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, "What is the value of your coin?"
- Ask, "How can you double-check to make sure your coin is the same as the one on the gameboard?"

## Connect

**Use the Think-Pair-Share routine.**

**Ask**, "What did you notice about the coins that helped you decide if you landed on your coin or the value of your coin?"

ML/EL **Multilingual / English Learners** Consider using multiple types of visuals to highlight the differences between the coins. For example, when describing the eagle on the back of the quarter, consider displaying a photo of an eagle to help students make the connection.

**Key Takeaway:** Say, "You can use what you have learned about coins to identify pennies, nickels, dimes, and quarters in games. Each coin has a specific value."

Student Edition

Name _____

Activity 2

# Coin Race for Four

## Hands-on

Your group will play Coin Race for Four!

In your group, decide who will be:

- the "penny"
- the "nickel"
- the "dime" and
- the "quarter."

You'll need . . .


Gameboard


Mat


Cube


Counters





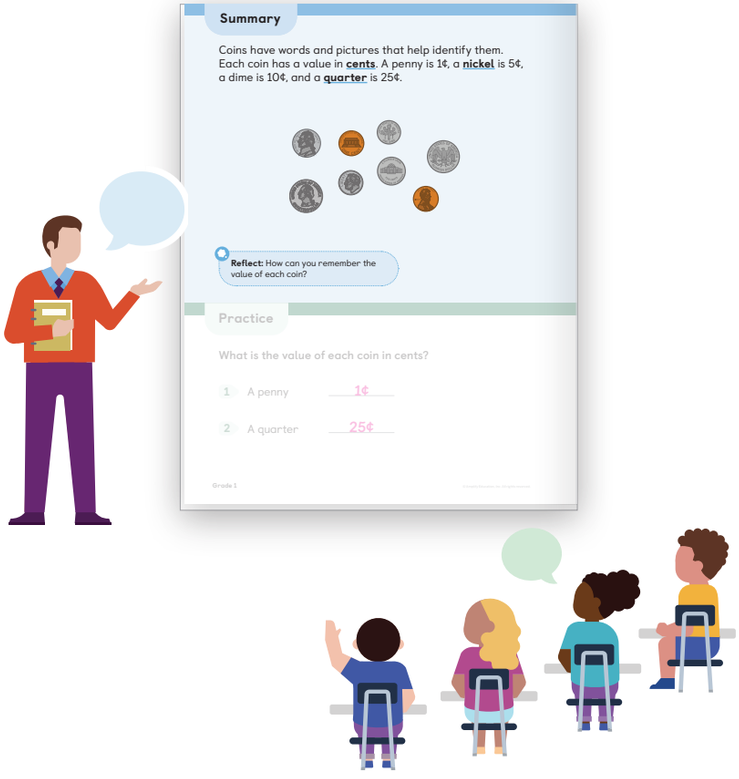
## D Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**<br>Move their counter no matter which value they roll. | The student represents the penny, but when they roll and land on 10¢, they still move their counter. | **Support** Ask, "Does the value you landed on match the coin you are representing in the game?" |
| **Almost there**<br>Use color alone to determine whether the coin they land on matches the coin they represent. | *I landed on a silver coin and my coin is silver. I can move my counter on this turn.* | **Support** Ask, "What other things on the coins do you notice that help you tell the difference between them?" |
| Talk about the different characteristics of each coin, such as the president, words, or other objects that appear on the coin. | *I noticed that the quarter and the dime both have a face on them, but the quarter has a bird on the back.* | **Stretch** Ask, "Are there things that all coins have? Some coins have? Are there things that only one type of coin has?" |

Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** Coins have different characteristics, such as size, color, words, and pictures, that can help identify them and their value in **cents**. A penny is worth 1 cent (¢), a **nickel** 5 cents (¢), a dime 10 cents (¢), and a **quarter** 25 cents (¢).




**Invite** students to look at the Summary in their Student Edition.

**Display** the Visual Display PDF, *Coins*.

**Say**, "Let's review each coin and its value." Point to each coin, say its name and value in cents.

**Ask** (if not yet mentioned during discussion), "Share with the class how the coins are the same or different. How do you know what each coin is? How do you know its value?"

**Ask**, "Why is it helpful to use the cent symbol when you write the value of the coin?"

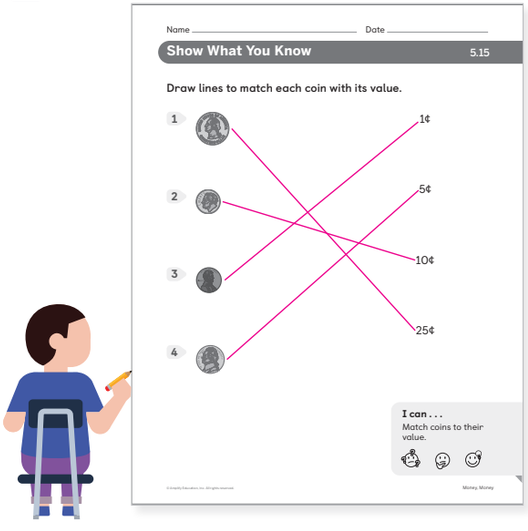
**Say**, "You will use the cent symbol more in the next lesson when you find the value of a collection of coins."

**Reflect (Optional):** Ask, "How can you remember the value of each coin?"

# Show What You Know (Optional)

Independent | 5 min

PDF Show What You Know PDF




## Today's Goals

1. **Goal:** Recognize and identify coins (penny, nickel, dime, and quarter) and their value.
2. **Goal:** Use the cent symbol (¢) appropriately.
3. **Language Goal:** Describe distinguishing characteristics of coins (penny, nickel, dime, and quarter). **(Speaking and Listening)**

# Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics and assessment practice.

## Summary

Coins have words and pictures that help identify them. Each coin has a value in **cents**. A penny is 1¢, a **nickel** is 5¢, a dime is 10¢, and a **quarter** is 25¢.

**Reflect:** How can you remember the value of each coin?

## Practice

What is the value of each coin in cents?

1. A penny 1¢
2. A quarter 25¢

Grade 1



Name _____

3. A dime 10¢
4. A nickel 5¢

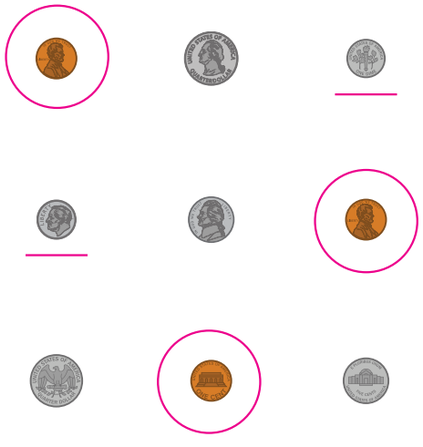
Draw lines to match each coin to its picture.

5. Quarter
6. Nickel
7. Penny
8. Dime



Money, Money

9. Draw a circle around each penny. Draw a line under each dime.



Grade 1



## Practice Problem Item Analysis

| | Problem(s) | DOK | Standard(s) |
|---|---|---|---|
| **On-lesson** | | | |
| | **1–4** | 1 | NY-1.MD.3.b |
| | **5–8** | 1 | NY-1.MD.3.b |
| **Spiral Review** | | | |
| | **9** | 1 | NY-K.MD.4 |

Lesson
16

# Dimes and Pennies

## Finding the Value of a Collection of Coins

Let's find the value of collections of dimes and pennies.

## Focus and Coherence

### Today's Goals

1. **Goal:** Count a mixed collection of dimes and pennies to determine the cent value (not to exceed 100 cents).
2. **Goal:** Use the cent symbol (¢) appropriately.
3. **Language Goal:** Explain how to find the value of a collection of coins. **(Speaking and Listening)**

Students find the value of collections of dimes and pennies whose sum is not to exceed 100 cents. They can use what they know about addition, including skip counting, counting on, and other addition strategies to find the value.

In the prior lesson, NY Lesson 1, *Money, Money*, students identified pennies, nickels, dimes, and quarters and the value of each coin.

## Vocabulary

### Review Vocabulary

*cents*
*dime*
*nickel*
*penny*
*quarter*

## Standards

### Addressing

**NY-1.MD.3.c**

**Count a mixed collection of dimes and pennies and determine the cent value (total not to exceed 100 cents).**

*Also Addressing:* **NY-1.MD.3.b**

**Mathematical Practices:** MP3, 7

## Rigor and Balance

- Students find the value of a mixed collection of dimes and pennies to develop **procedural skills**.

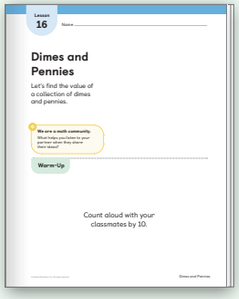
# Lesson at a Glance 60 min

**Standards: NY-1.MD.3.b, NY-1.MD.3.c**

## Warm-Up Fluency

Whole Class | 10 min

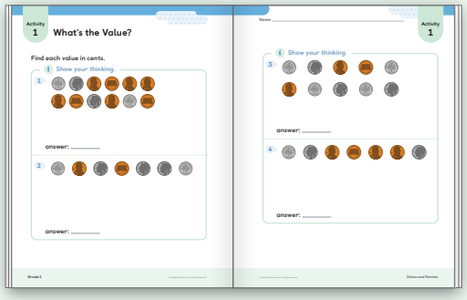
Students use the **Choral Count** routine, in which they count as a class by 10 starting at 13 and ending at 93. As the count is recorded, students may notice patterns or structures in the count and consider why those patterns or structures show up. **(MP7)**




## Activity 1

Pairs | 20 min

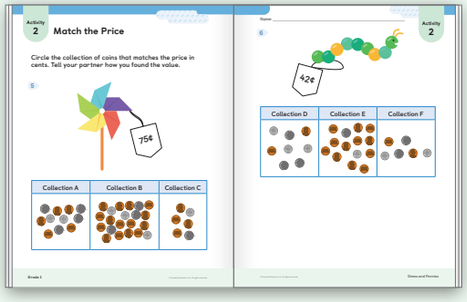
Students find the value of several collections of dimes and pennies. They share their strategies for finding the value with a partner, which provides an opportunity to hear different strategies they might want to use in the future.




## Activity 2

Pairs | 15 min

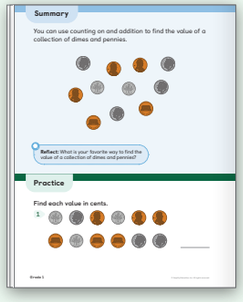
Students determine which collection of coins matches a given value to practice finding the value of a collection of dimes and pennies. They construct viable arguments as they explain how they know a collection of coins matches a certain value. **(MP3)**




## Synthesis

Whole Class | 10 min

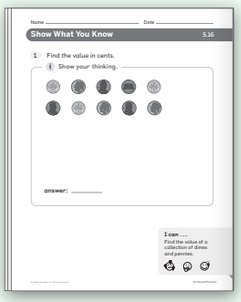
Students review and reflect on how to find the value of a collection of dimes and pennies.




## Show What You Know

Independent | 5 min

Students demonstrate their understanding by finding the value of a mixed collection of dimes and pennies.




## Prep Checklist

### This lesson includes:

- Student Edition
- Show What You Know PDF (Optional)

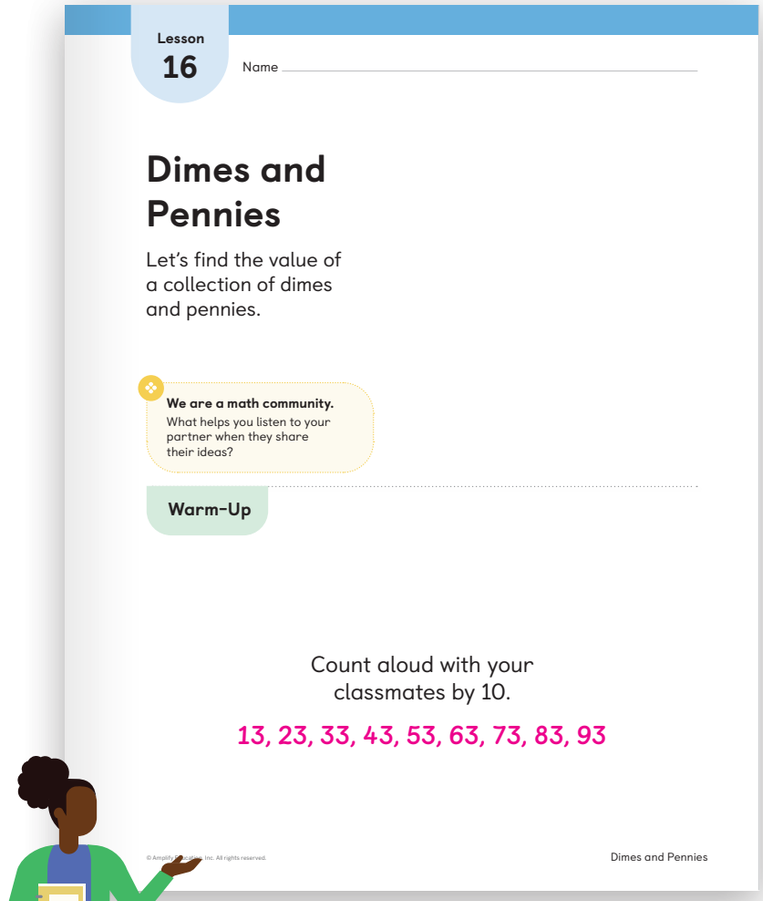
### Additional required materials:

- Visual Display PDF, *Coins* (from the prior lesson)

Whole Class | 10 min

# Warm-Up Choral Count

**Purpose:** Students count by 10 to prepare for finding the value of collections of dimes and pennies.


Lesson 16

Name _____

## Dimes and Pennies

Let's find the value of a collection of dimes and pennies.

**We are a math community.**
What helps you listen to your partner when they share their ideas?

**Warm-Up**

Count aloud with your classmates by 10.

13, 23, 33, 43, 53, 63, 73, 83, 93



Dimes and Pennies

## Launch

**Say**, "Let's count by 10, starting at 13 and ending at 93."

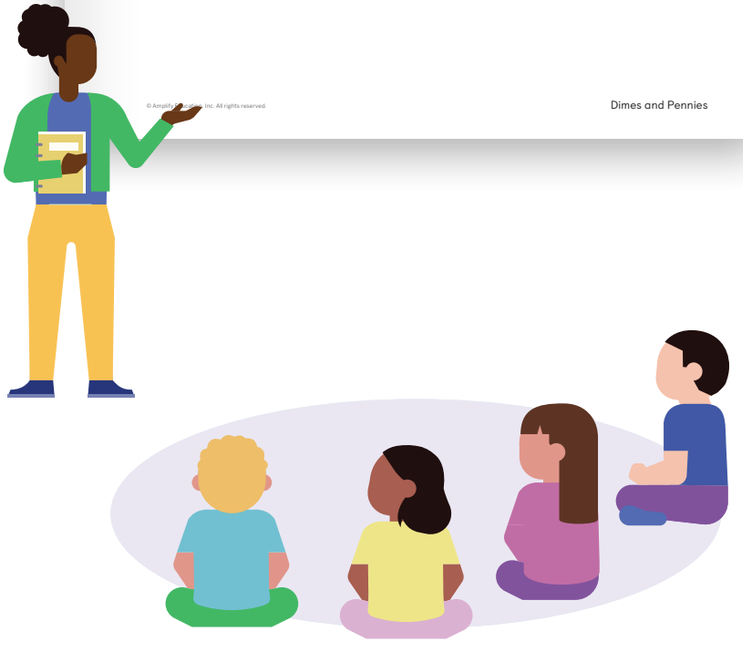
**Record** each number as students count, so the recorded numbers are displayed as shown on the slide.

**Ask:**

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

## Connect

**Record** students' responses as they share. Consider highlighting different patterns using different colors.



**Students might say . . .**

*I notice the number in the tens place goes up by 1 for each number.*

*Every number has a 3 in the ones place.*

*There are 9 numbers.*

*The numbers go up by 40 if you go down. 13 plus 40 is 53.*

Pairs | 20 min

# Activity 1 What's the Value?

**Purpose:** Students use different strategies to find the values of mixed collections of dimes and pennies.

### Materials

- Visual Display PDF, *Coins* (from the prior lesson)

**Short on time?** Consider omitting Problems 3 and 4.

## Launch

**Display** the Visual Display PDF, *Coins*.

MLR **MLR5 Co-craft Questions**

- Have students work with their partners to generate 1–2 mathematical questions they could ask about the display.
- Ask, "Which of your questions would you like to answer at the end of this lesson?"

**Say**, "For Problems 1–4, find the value of each collection of dimes and pennies in cents." Have students work independently for 5 minutes.

**Say**, "Share your strategies for finding the value of the collections of coins with your partner." Have students share strategies for 5 minutes.

A **Accessibility: Visual-spatial processing** Provide coins (real or plastic) that students can choose to use during the activity.

## Monitor

After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, "What is the value of each type of coin that you see?"
- Ask, "How can you use the value of each coin to help you find the value of the entire collection?"

## Connect

**Invite students to share** their responses and strategies from Problem 2. Select and sequence their responses in the order shown in the *Differentiation* table.

**Ask**, "How are these strategies alike? How are they different?"

ML/EL **Multilingual / English Learners** When discussing the coins and their value, reference the Visual Display PDF, *Coins*. Say "dime" and "10 cents" as you point to a dime, and "penny" and "1 cent" for a penny.

**Key Takeaway:** Say, "There are many different ways to find the value of a collection of dimes and pennies. You can count the coins in the order that you see them. You can also count the dimes and pennies separately first and then combine them."

Activity 1

## What's the Value?

Find each value in cents. Sample explanations shown

Show your thinking.

1

40 + 8 = 48

answer: 48¢

2

10, 11, 21, 22, 32, 42, 52

answer: 52¢

Grade 1

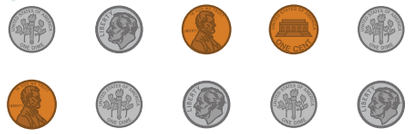


Name _____

Activity 1

Show your thinking.

3



10, 20, 30, 40, 50, 60, 70, 71, 72, 73

answer: 73¢

4

10 + 10 + 10 + 4 = 34

answer: 34¢



Dimes and Pennies

## D Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count the value of the coins in the order they appear in the collection. | 10, 11, 21, 22, 32, 42, 52 | S **Strengthen** Ask, "How might your strategy change if you grouped the coins by type to find the value?" |
| Skip count, beginning with the dimes, and then adding the pennies. | 10, 20, 30, 40, 50, 51, 52 | S **Strengthen** Ask, "What is an addition expression that could represent your thinking?" |
| Write an addition expression. | 10 + 1 + 10 + 1 + 10 + 10 + 10 = 52<br>or<br>10 + 10 + 10 + 10 + 10 + 1 +1 = 52<br>or<br>50 + 2 = 52 | S **Stretch** Ask, "What coins could you add to this collection to make the value 75 cents? What are some different ways to answer this question?" |

Pairs | 15 min

**Short on time?** Consider omitting Problem 6.

# Activity 2 Match the Price

**Purpose:** Students determine which collection of coins matches a given value to practice finding the value of a collection of dimes and pennies.

## Launch

**Say**, "Now that you have some strategies for finding the value of a collection of dimes and pennies, you are going to work with your partner to find a collection of coins that matches a certain value."

**Read** aloud the directions.

A **Accessibility: Visual-spatial processing** Consider providing actual coins (real or plastic) for students to physically manipulate during the activity.

## Monitor

After students have completed **Problem 1**, refer to the D **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, "What is the value of the collection you are trying to find?"
- Ask, "What strategies do you have for finding the value of this collection of coins?"

## Connect

**Display** one of the collections from Problem 1 that does *not* match the given price.

**Use the Think-Pair-Share routine.**

**Ask**, "Did you know right away if this collection did not match the price? How did you know?" Look for students who defend their reasoning and carefully consider their partner's reasoning.

ML/EL **Multilingual / English Learners** Point to a penny as you say its name. Do the same for a dime. Demonstrate what it means to count the dimes first by pointing to each of them as you count aloud.

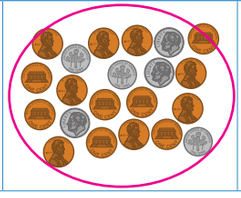
**Key Takeaway:** Say, "You can use different strategies to find if the value of a collection of dimes and pennies matches a given value. You can count the dimes first, or you can count the coins in the order they appear."

Activity 2

## Match the Price

Circle the collection of coins that matches the price in cents. Tell your partner how you found the value.
Oral activity: No writing expected.

5


| Collection A | Collection B | Collection C |
|---|---|---|
|  |  |  |

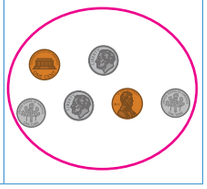
Grade 1



Name _____

Activity 2

6


| Collection D | Collection E | Collection F |
|---|---|---|
|  |  |  |



Dimes and Pennies

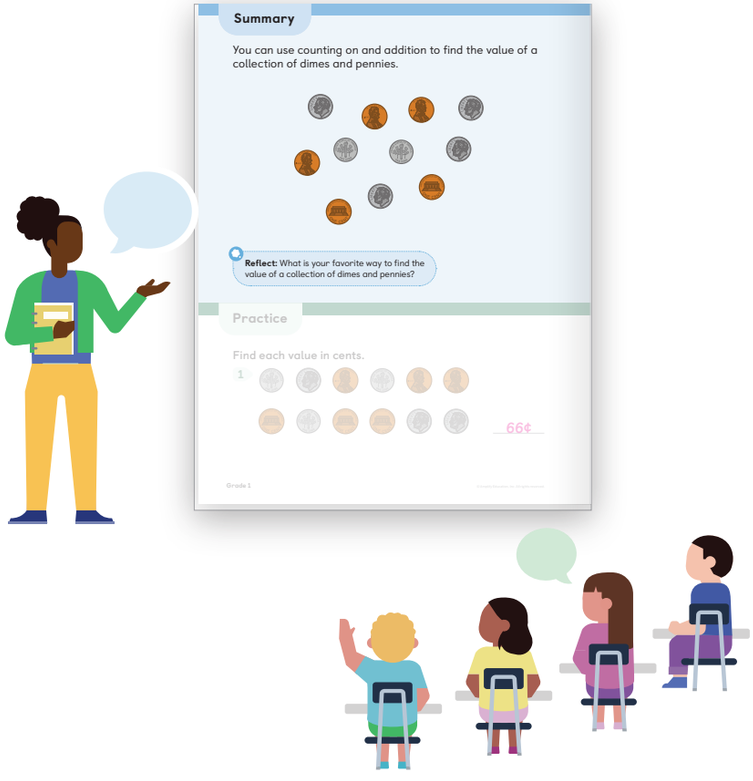
## D Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there**<br>Match a collection of coins by only counting the number of pennies. | *This collection has 5 pennies, so it matches.* | **Support** Say, "It may seem like it matches because there are 5 pennies. Can you double-check the value of the collection by also counting the dimes?" |
| Match a collection of coins by finding the value of each collection of coins. | *I found the value of each collection of coins and circled the middle one. It has 15 pennies for 15 cents and 6 dimes which is 60 cents. 60 plus 15 is 75.* | **Strengthen** Ask, "Are there any collections you know would not match by just looking at the coins?" |
| Match a collection of coins by considering which collections do not make sense before finding each value. | *The last collection can't match because 2 dimes are only 20 cents. It won't be enough. I found the value of the first two collections. The first one is 65 cents and the middle one is 75 cents, so it matches.* | **Stretch** Ask, "What is another collection of coins you could make that would be worth 75 cents?" |

Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** The value of a collection of dimes and pennies can be found using a variety of strategies, including skip counting, counting on, and writing addition expressions.




**Invite** students to look at the Summary in their Student Edition.

**Ask**, "How can you find the value of this collection of dimes and pennies?"

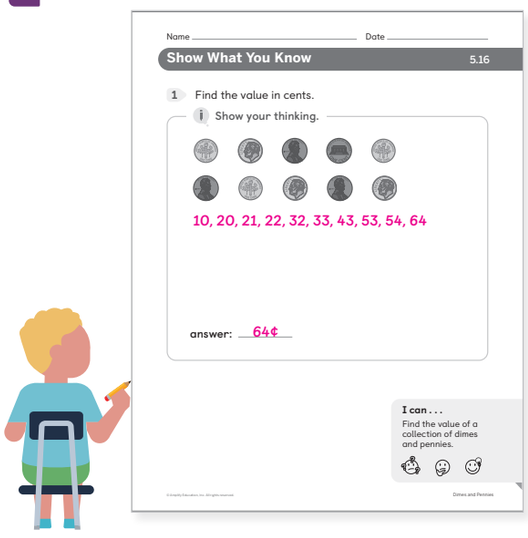
**Say**, "Counting on and addition can be used to find the value of a collection of dimes and pennies."

**Reflect (Optional):** Ask, "What is your favorite way to find the value of a collection of dimes and pennies?"

# Show What You Know (Optional)

Independent | 5 min

PDF Show What You Know PDF




## Today's Goals

1. **Goal:** Count a mixed collection of dimes and pennies to determine the cent value (not to exceed 100 cents).
2. **Goal:** Use the cent symbol (¢) appropriately.
3. **Language Goal:** Explain how to find the value of a collection of coins. **(Speaking and Listening)**

# Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics and assessment practice.

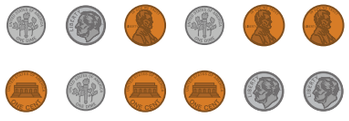
## Summary

You can use counting on and addition to find the value of a collection of dimes and pennies.

**Reflect:** What is your favorite way to find the value of a collection of dimes and pennies?

## Practice

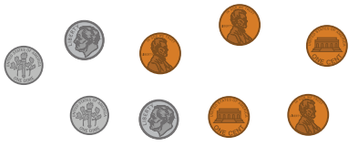
Find each value in cents.

1  66¢

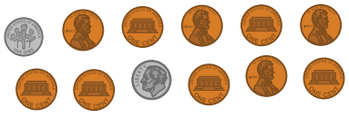
Grade 1



Name _____

2  45¢

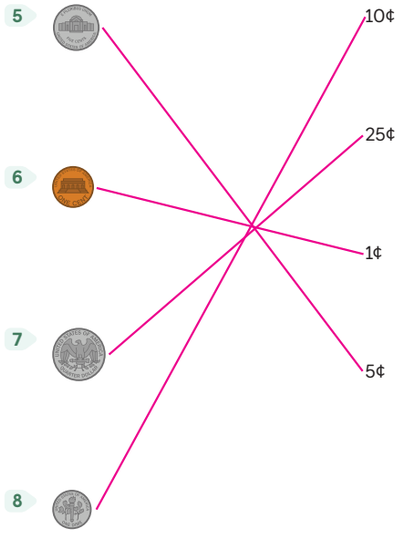
3  83¢

4  30¢



Dimes and Pennies

Draw lines to match each coin with its value.




Grade 1



## Practice Problem Item Analysis

| | Problem(s) | DOK | Standard(s) |
|---|---|---|---|
| **On-lesson** | | | |
| | **1–4** | 1 | NY-1.MD.3.c |
| **Spiral Review** | | | |
| | **5–8** | 1 | NY-1.MD.3.b |

Amplify Desmos Math **NEW YORK**

GRADE 1

# Unit 6

## Measuring Lengths of Up to 120 Length Units

Teacher lesson plans from Unit 6 are included here to enable your review of Amplify Desmos Math New York content that demonstrates coverage of the **Operations and Algebraic Thinking (NY-1.OA)** and **Number** and **Operations in Base Ten (NY-1.NBT)** foundational areas. We only included lessons in this unit that focus on the Foundational Standards.

Lessons in this unit include content that is pre-publication. We have included placeholder boxes and text to help you understand where final content and text will be placed. These lessons will be updated to match the design of Unit 1 provided in the Teacher Edition Sampler, Volume 1.

Lessons included in this section include:

- **Lesson 6.03**
- **Lesson 6.07 – 6.15**

# Unit at a Glance

**Unit Investigation**

Launch the unit with this engaging mathematical task!

## Assess and Respond

### A Pre-Unit Check

Learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1.

NY-K.MD.1
MP6

## Unit Investigation

### 1 Sean's Block Tower

**What might Sean's block tower look like?**

Build a block tower and justify how its height compares to the height of a shorter and taller classroom object.

Building Toward: NY-1.MD.1
MP1 MP6

## Sub-Unit 1

### 2 Arts and Crafts

**Comparing the Lengths of Objects Directly and Indirectly**

Compare the lengths of three objects directly and compare the lengths of two objects indirectly.

NY-1.MD.1
MP6

### 3 A Very Muddy Competition

**Using a Third Object to Indirectly Compare the Lengths of Two Objects**

Use a third object to compare the lengths of two objects that cannot be lined up side by side.

NY-1.MD.1 NY-1.NBT.4
MP1 MP6 MP7 MP8

## Sub-Unit 2

### 7 From Wing Tip to Wing Tip

**Measuring Lengths Up to 120 Length Units**

Measure objects with lengths up to 120 length units to compare measuring longer lengths with measuring shorter lengths.

NY-1.MD.2 NY-1.NBT.1
MP6 MP7

### 8 Measuring More Wingspans

**Using Tens Rods to Measure Lengths Up to 120 Length Units**

Use tens rods as a measuring tool to count length units by tens and ones when measuring objects up to 120 unit cubes long.

NY-1.MD.2 NY-1.NBT.1
MP5 MP6 MP7

### 9 From Head to Claw

**Writing and Interpreting Lengths Between 100 and 120 Length Units**

Create and interpret representations of length measurements up to 120 length units, including with a written numeral.

NY-1.NBT.1 NY-1.MD.2
MP6 MP7 MP8

## Assess and Respond

### A Quiz: Sub-unit 2

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.NBT.1 NY-1.MD.2
MP6 MP7

## Sub-Unit 3 continued

### 14 All Types of Problems

**Finding Unknown Amounts in All Positions**

Represent and find the unknown in a variety of story problems and equations with unknowns in all positions.

NY-1.OA.8 NY-1.OA.1 NY-1.OA.6a
MP2 MP4 MP7 MP8

### 15 Keeping Score

**Representing and Solving Story Problems About Data**

Interpret data to practice familiar strategies for finding sums and differences between categories and solve *Compare* story problems.

NY-1.MD.4 NY-1.OA.1 NY-1.OA.7
MP2 MP3 MP6 MP7

## Summative Assessment

### A End-of-Unit Assessment

Learn about your students' understanding of the concepts and skills in the unit.

NY-1.MD.1, NY-1.MD.2, NY-1.MD.4, NY-1.OA.1, NY-1.OA.2, NY-1.OA.4, NY-1.OA.8, NY-1.OA.6a, NY-1.OA.6b, NY-1.NBT.1
MP2 MP6 MP7

## Assess and Respond

### 4 Library Books

**Measuring Length With Nonstandard Length Units**

Build connecting cube towers that are the same length as given objects and measure the lengths with connecting cubes.

NY-1.MD.2
MP6

### 5 Packing a Picnic

**Measuring Length Without Gaps or Overlaps Using Nonstandard Units**

Measure the lengths of objects with paper clips without gaps or overlaps.

NY-1.MD.2
MP2 MP3 MP6

### 6 Off to the Bird Sanctuary!

**Measuring the Same Object With Different Nonstandard Length Units**

Measure the length of an object more than once, using a different length unit for each measurement.

NY-1.MD.2
MP6 MP7

### A Quiz: Sub-Unit 1

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.MD.1 NY-1.MD.2
NY-1.MD.1 NY-1.MD.2

## Sub-Unit 3

### 10 A Bird-friendly Backyard

**Using Addition and Subtraction to Solve Story Problems About Lengths**

Measure the lengths of objects and use the measurements to solve a *Put Together/Take Apart* story problem, and ask and answer questions about comparing lengths of objects.

NY-1.MD.2 NY-1.OA.2 NY-1.MD.4 NY-1.OA.4
MP2 MP7

### 11 Fascinated With Footprints

**Solving Compare Story Problems With Unknowns in All Positions**

Represent and solve *Compare* story problems with unknowns in all positions.

NY-1.OA.1 NY-1.OA.4 NY-1.OA.6a
MP2 MP7 MP8

### 12 Sharing is Fun

**Solving Take From Story Problems With Unknowns in All Positions**

Represent and solve *Take From* story problems with unknowns in all positions.

NY-1.OA.1 NY-1.OA.6a
MP2 MP3 MP5 MP7

### 13 Addition or Subtraction?

**Identifying 2 Equations That Represent the Same Story Problem**

Identify two equations that can be used to find the unknown amount in story problems with unknowns in all positions.

NY-1.OA.4 NY-1.OA.7
MP2 MP3 MP7

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 3**

# A Very Muddy Competition

## Using a Third Object to Indirectly Compare the Lengths of Two Objects

Let's compare the lengths of objects that cannot be lined up side by side.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Use a third object to compare the lengths of two objects indirectly.
2. **Language Goal:** Explain possible strategies for comparing the lengths of two objects that cannot be lined up side by side. **(Speaking and Listening)**
3. **Language Goal:** Justify length comparisons. **(Writing)**

Students generate ideas about how to compare the lengths of two objects that cannot be lined up side by side. Some may suggest using units of measurement including standard or non-standard length units. All students' ideas should be honored; however, the focus of this lesson is comparing the lengths of two objects indirectly using a third object rather than finding the exact length of each object by measuring with length units. Students are then given string to use as a tool to compare the lengths of two objects and justify their comparisons. **(MP1)**

### Prior Learning

In Lesson 2, students directly compared the lengths of three objects by lining up their endpoints and indirectly compared the lengths of two objects based on how their lengths compared to the length of a third object.

### Future Learning

In Lesson 4, students will measure length using nonstandard length units for the first time.

## Rigor and Balance

- Students develop their **conceptual understanding** of how to indirectly compare the lengths of two objects by using a third object.

## Vocabulary

**Review Vocabulary**

- *longer*
- *shorter*
- *taller*

## Standards

**Addressing**

**NY-1.MD.1**

Order three objects by length; compare the lengths of two objects indirectly by using a third object.

*Also Addressing*: NY-1.NBT.4

**Mathematical Practices:** MP1, MP6, MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-K.MD.2 | NY-1.MD.2 |

**Math Identity/Community statement.**
What does it mean to be a problem solver in math class?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.MD.1, NY-1.NBT.4

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions and use place value understanding to find the sums. **(MP7, MP8)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 10 min

Students brainstorm strategies for comparing the lengths of two shoe prints that cannot be lined up side by side to prepare to indirectly compare them in Activity 2.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeILy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

SE Print inset (remove 1 page for single page Activity)

SE Print inset

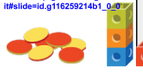
Screens X–X

## Activity 2 Pairs | 20 min

Students use a third object, string, to indirectly compare the lengths of the two shoe prints. **(MP6)**

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeILy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0



SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on the usefulness of a third object when comparing the lengths of two objects that cannot be lined up.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice strategies for counting and addition within 100.

- Counting Collections, Stage 3
- Cover Up, Stage 9
- How Close?, Stage 3

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 2 PDF
- **Classroom materials:** scissors, string (about 2 ft long)

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Fluency**

**Purpose:** Students find the sums of 2 two-digit numbers to practice place-value based strategies for addition within 100.

Presentation Screen X


| A | B |
|---|---|
| 15 + 10<br>25 | 15 + 15<br>30 |
| **C** | **D** |
| 25 + 25<br>50 | 25 + 28<br>53 |

**Why these problems?** These expressions lend themselves to finding sums by considering how the amount of tens and ones changes in each expression.

## Launch

**Use the Number Talk routine.**

X-X **Display** one expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."

## Connect

X-X **Record** sums and two or three strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expression D.

**Ask,** "How might knowing the value of 25 + 25 be useful for finding the value of 25 + 28?"

### Students might say . . .

A: 1 ten and 1 ten is 2 tens, which is 20. 20 and 5 more ones is 25.

B: This expression is the same 15 + 10 except the second addend has 5 more ones. 25 plus 5 more ones is 30.

C: This expression is the same as 15 + 15 except each addend has 1 more ten. 30 + 20 = 50.

D: This expression is the same as 25 + 25 except 1 of the addends has 3 more ones. 50 plus 3 more ones is 53.

Print Lesson | Pairs | 10 min

# Activity 1 Title Goes Here

**Purpose:** Students consider how to compare the lengths of 2 objects that cannot be lined up side by side to brainstorm and generate strategies for making indirect comparisons.

Presentation Screens X–X


## Launch

Launch Storyboard Art FPO

X–X **Say:**

- "As soon as the rain stopped, Trevor and Sean dashed outside to play. They noticed their muddy backyard was covered in shoe prints and decided to compete for who could find the longest one."
- "Sean and Trevor were both convinced that the shoe print *they* found was longer than the other. They ran back and forth between the 2 shoe prints, over and over, each time declaring 'Mine is longer,' 'No, mine is longer!' They could not come to an agreement."

**Use the Think-Pair-Share routine.** Ask, "Why might figuring out which shoe print is longer be difficult for Sean and Trevor?"

**Say,** "Comparing the lengths of the shoe prints might be difficult because they cannot be moved to be side by side."

**Read aloud** Problem 1. Have students brainstorm independently for 2 minutes before discussing with a partner for 2 minutes.

**[A] Accessibility: Memory and attention** Draw, label, and display a quick sketch of the situation, so students have something to refer to while discussing strategies.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "In your own words, what problem do Sean and Trevor need to solve?"
- Ask, "How might you use a tool to help find which shoe print is longer?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** ideas about how to determine which shoe print is longer. Select responses shown in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask, "Which of these strategies do you think might or might not work and why?"

**[L] MLR8: Discussion Supports — Active Listening**

- Invite students to begin interactions by restating a classmate's idea, in their own words, before adding their own ideas to the discussion.
- **[EL] Multilingual/English Learners:** Provide a sentence frame for restating, such as, "[Classmate]'s strategy is to…."

**Say,** "You thought about many different ideas for comparing the lengths of the shoe prints."

**Key Takeaway:** Say, "In the next Activity, you will compare the lengths of the shoe prints to find out which is longer."

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Indicate that the objects can be compared by guessing based on observation. | I could look at each shoe print and see which one looks longer. | Ask, "Sean and Trevor looked at the shoe prints and could not come to an agreement. How could you prove which is longer?" |
| Indicate that the lengths could be compared by using the distance between their hands. | If I put my hands at each end of one shoe print, then I could compare that length with the other shoe print and find which is longer. | Ask, "How could you use a math tool to help prove which is longer?" |
| Indicate that the objects can be compared by using a third object. | If I cut a piece of paper that is the same length as one of the shoe prints and line up the endpoints of the paper with the other shoe print, I could find which is longer. | ****Extend Thinking****<br>Ask, "How do you know using a tool could help you compare the lengths? Could this strategy work to compare the lengths of any two objects?" |

Print Lesson | Pairs | 20 min

# Activity 2 Which Shoe Print is Longer?

**Purpose:** Students use string to compare the lengths of the 2 shoe prints from Activity 1 to practice comparing the lengths of 2 objects indirectly using a third object.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Display** the Activity 2 PDF. Place copies of Page 1 and copies of Page 2 on opposite sides of the room.

**Say,** "When Sean and Trevor explained their problem to their dad, he handed them string and scissors. 'What are we supposed to do with this?' they wondered."

**Use the Think-Pair-Share routine.** Say, "You are going to use string to compare the lengths of the shoe prints. Brainstorm how you could find which shoe print is longer using the string and scissors." Have students brainstorm in pairs for 2 minutes before getting started on the activity.

**Read aloud** Problems 1 and 2.

A] **Accessibility: Fine motor skills** Provide students with a variety of pre-cut strings of varying lengths to choose from, including strings the length of Shoe print S and Shoe print T.

### Materials

- Activity 2 PDF (for display) (one copy per pair) **(Lesson Resources)**
- scissors, string (about 2 ft long) (one per pair) **(Classroom materials)**

**Short on time?** Consider modifying the activity so that students discuss, rather than write, what they would say to Trevor and Sean in Problem 2.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 1**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**If students need help getting started . . .**

- Ask, "What might you think about when deciding where to cut the string?"
- Ask, "Are there any ideas from Activity 1 that you could try using?"

## Connect

Connect Storyboard Art FPO

**Display** the Activity 2 PDF, string, and scissors.

**Invite a pair to share** their strategy. Select a pair using the last row of the *Differentiation* table. Choose a pair who cut the string to be the length of Shoe print T.

**[L] MLR8: Discussion Supports — Pressing for Details**

As the pair shares how they would use the string to determine which shoe print is longer, press for details in their reasoning. For example:

- If a student says, "I cut the string to be the same length as Shoe print T and then put it on Shoe print S." . . .
- Press for details by asking, "How did you make sure the string you cut was the length of Shoe print T? How did you place the string on Shoe print S?"

**Use the Think-Pair-Share routine.** Ask, "If you instead began by cutting a string the same length as Shoe print S, how could you use that string to find which shoe print is longer?"

**Key Takeaway:** Say, "Sometimes it is not possible to line up two objects side by side so a tool, like a piece of string, can be used to compare their lengths."

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Compare both shoe prints to the length of a string, rather than to each other. | We cut a piece of string that is longer than both shoe prints, so we know both shoe prints are shorter than the string. | Ask, "You compared each shoe print to the length of your string. How can you use the string as a tool to find which shoe print is longer?" |
| Measure and cut two strings to equal the length of each shoe print and compare the lengths of the strings. | We cut 1 string to be the same length as Shoe print T and 1 string to be the same length as Shoe print S. We lined the strings up at their endpoints and found that T is longer. | Ask, "You found which shoe print is longer by cutting two pieces of string. How might someone compare the shoe print lengths by cutting one piece of string?" |
| Measure and cut one string to equal the length of one shoe print and compare the length of the string to the length of the other shoe print. | We cut 1 string to be the same length as T and lined that string up with S. The string is longer than S, so T is longer than S. | ****Extend Thinking****<br>Ask, "When might you need to compare lengths in a similar way in life outside of math class?" |

Print Lesson | Whole Class | 10 min

# Synthesis

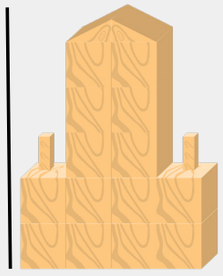
**Lesson Takeaway:** A third object can be used as a tool to indirectly compare the lengths of two objects.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)



X–X **Ask** (if not yet mentioned during discussion), "How could you hit the exact center of the bullseye?"

**Say**, "Version of the Lesson Takeaway in kid-friendly language."

## Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

### Today's Goals

1. **Goal:** Use a third object to compare the lengths of two objects indirectly.
2. **Language Goal:** Explain possible strategies for comparing the lengths of two objects that cannot be lined up side by side. **(Speaking and Listening)**
3. **Language Goal:** Justify length comparisons. **(Writing)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.MD.1 |
| **Spiral Review** | | | |
| Fluency | 4–15 | 1 | NY-1.OA.6b |
| | 16 | 2 | NY-1.OA.2 |

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Counting Collections


**Stage 3 – Up to 99**
**Pairs** | **15 min** | NY-1.NBT.1

Students count collections and represent how many and how they counted.

**Materials**

- 10-frames **(Manipulative Kit)**
- collections of objects (one per pair), cups **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Cover Up


**Stage 9 – Add Within 100 With Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add 2 numbers, with and without composing a ten, to practice strategies for addition within 100.

**Materials**

- centimeter cubes (two per pair), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B), Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## How Close?

Placeholder for Center Icon

**Stage 3 – Add to 100**
**Pairs** | **15 min** | NY-1.NBT.4

Students create and then add 2 two-digit addends to apply their place value understanding to find sums that are as close to 100 as possible.

### Materials

- number cards (1–9, one per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

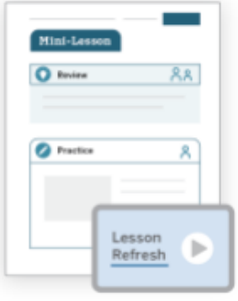
## Support

Provide targeted intervention for students by using these resources.

**If Students** need more support with their understanding of the lesson goal:

**Respond:**

- **Mini-Lesson** | 15 min
- **Lesson Refresh**



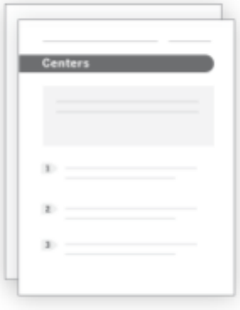

## Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:

**Respond:**

- **Centers** | 15 min
- **Lesson Practice** | 15 min
- **Item Bank**



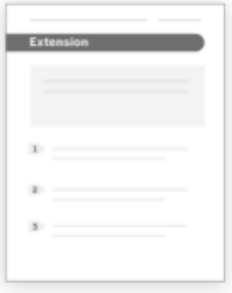

## Stretch

Challenge students and extend their learning with these resources.

**If Students** would benefit from one or more challenging tasks to extend their learning:

**Respond:**

- **Sub-Unit Extension Activities** | 15 min




**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)


Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 7**

# From Wing Tip to Wing Tip

## Measuring Lengths Up to 120 Length Units

Let's statement goes here.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:**Measure length and count the number of length units for lengths up to 120 length units.
2. **Goal:** Represent measurements of lengths up to 120 length units using drawings, numbers, or words.
3. **Language Goal:** Compare similarities and differences with measuring longer and shorter lengths. **(Speaking and Listening)**

Students apply what they have learned about measuring to measure lengths that are much longer than the length units being used — connecting cubes, paper clips, and unit cubes. Students should be encouraged to measure precisely, however the primary focus of this lesson is how to count to find lengths up to 120 length units. Students recognize that they can group the length units and use counting patterns to find the total amount of length units, including the understanding that 10 tens can be grouped to make 100. Although students will record numeric measurements greater than 99 in this lesson, they will focus on writing numbers up to 120 in a later lesson. **(MP6, MP7)**

### Prior Learning

In Sub-unit 1, students measured length using same-length units with no gaps or overlaps. In Lesson 6, they found that using different length units results in measurements with different numbers of length units.

### Future Learning

In Lesson 8, students will be introduced to the tens rod as a measurement tool. They will continue to measure lengths up to 120 length units and record measurements with three-digit numbers. In Lesson 9, students will focus on writing numbers 100–120 with written numerals.

## Rigor and Balance

- Students continue to build **conceptual understanding** of length measurement.
- Students measure length with nonstandard length units to practice **procedural skills**.
- Students **apply** their knowledge of counting to find and record measurements of up to 120 length units.

## Vocabulary

**Review Vocabulary**

- *digit*
- *length*
- *a one/ones*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.MD.2**

Measure the length of an object using same-size "length units" placed end to end with no gaps or overlaps. Express the length of an object as a whole number of "length units."

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP6, MP7

**Building On**

**NY-1.NBT.2**

**Math Identity/Community statement.** What can you think about to help you when math feels challenging?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

**Standards:** NY-1.MD.2, **NY-1.NBT.1**

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 1 from 91 to 120. As the count is recorded, students may notice patterns or structures in the count such as the repetition of the ones digits and consider why those patterns or structures show up. **(MP7)**

SE Print inset

Screens X–X

## Activity 1 Small Groups | 15 min

Students measure and record the length of a tape that represents a bird's wingspan 3 times, using a different length unit each time. They discuss what is similar and different when measuring shorter lengths and longer lengths.

**Additional Prep:** Prepare: Cut a 45-inch tape strip for each group, labeled Black Skimmer.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeiLy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Small Groups | 15 min

Students measure the lengths of 3 other tapes that represent different birds' wingspans. They represent how they counted and then share their representations with another group to compare counting strategies. They notice the usefulness of grouping length units into groups of 10 when measuring longer lengths.

**Additional Prep:** Prepare: Cut and label a set of 3 tape strips for every 3 groups, with the name of the bird only. Bald eagle: 81 in., Sandhill crane: 73 in., Prairie falcon: 107 cm.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeiLy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on the different length units used for measuring. They consider which length units are useful for measuring longer lengths and which length units are useful for measuring shorter lengths.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency with counting up to 120, practice strategies for adding within 100, and measure objects by comparing.

- Counting Collections, Stage 4
- Cover Up, Stage 9
- Estimate and Measure, Stage 2

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Manipulative Kit:** connecting cubes, unit cubes
- **Classroom materials:** *Choral Count* chart (from Warm-up, teacher made), masking tape, paper clips (1 in.)

Print Lesson | Whole Class | 10 min

# Warm-Up Choral Count

**Fluency**

**Purpose:** Students count by 1 from 91 to 120 to notice patterns in the count and in the way the numbers 100 to 120 are written.

Presentation Screen X


## Choral Count

Count aloud with your classmates by 1, starting at 91.

| | | |
|---|---|---|
| 91 | 101 | 111 |
| 92 | 102 | 112 |
| 93 | 103 | 113 |
| 94 | 104 | 114 |
| 95 | 105 | 115 |
| 96 | 106 | 116 |
| 97 | 107 | 117 |
| 98 | 108 | 118 |
| 99 | 109 | 119 |
| 100 | 110 | 120 |

## Launch

**Use the Choral Count routine.**

X–X **Say,** "Let's count by 1, starting at 91."

**Display** each number as students count.

**Ask:**

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

## Connect

X–X **Record** students' responses as they share. Consider highlighting different patterns using different colors.

**Ask** (if not yet mentioned),

- "What do you notice about the pattern in the count after 99?"
- "What do you notice about how the numbers greater than 99 are written?"

**Note:** Leave the Choral Count displayed for Lessons 7–9 so students can refer to it as they write numbers for lengths greater than 99 length units.

**Students might say . . .**

For the numbers after 100, it's just like counting from 1 to 20, but you say one hundred first. One hundred one, one hundred two,

one hundred three, … .

I notice that in each column, the ones digits count up from 1. 1, 2, 3, 4, ….

When we get to 100, the numbers have 3 digits.

In each column, the ones digit is the only digit that changes until you get to the last number in the column.

Print Lesson | Small Groups | 15 min

# Activity 1 Long Length, Short Units

**Purpose:** Students measure a length that is much longer than the length units being used to measure to share and compare strategies for measuring longer lengths.

Presentation
Screens X–X


## Launch

X–X **Arrange** students in groups of 3–4.

**Say:**

- "As Sean and Trevor toured the Education Center at the bird sanctuary, they noticed long pieces of tape displayed on one of the walls. The guide shared that ornithologists, people who study birds, measure the length of birds' wingspans, and each piece of tape represented the wingspan of a bird. She explained that a bird's wingspan is the length from the tip of one wing to the tip of the other wing when the wings are fully spread out."
- "Today you will measure the length of birds' wingspans using different length units."

[A] **Accessibility: Visual-spatial processing** Open arms to show an adult arm span, and encourage a student volunteer to show their arm span as well. Name that in birds, this distance is called a wingspan, and it can be measured the same way.

**Read aloud** the introduction and Problems 1 and 2.

**Say,** "If the length units do not line up exactly with the endpoint of the wingspan, place the length units to get as close to the endpoint of the tape as you can."

### Materials

- connecting cubes (120 per group), unit cubes (120 per group) **(Manipulative Kit)**
- *Choral Count* chart (from Warm-up, teacher made), masking tape, paper clips (1 in., 120 per group) **(Classroom materials)**

## Monitor

After/While students have completed/complete **Problem 1**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "Which of the 3 length units do you want to use to measure first?"
- Ask, "How can you find the length of the wingspan with the length unit you chose?"

## Connect

X–X **Invite students to share** responses for Problem 1 and demonstrate how they measured. Select groups so that a different group shares for each of the 3 length units. Select and sequence their responses using the last 2 rows in the *Differentiation* table.

**[L] MLR8: Discussion Supports — Pressing for Details**

As students share, press for details in their reasoning. For example:

- If a student says, "We lined up the cubes." …
- Press for details by asking, "How did you line up the cubes?"
- If a student says, "We lined up all the paper clips first, and then we counted." …
- Press for details by asking, "Why did you line the length units up and then count?"

**Have groups share** responses for Problem 2.

**Key Takeaway:** Say, "There is more than one way to find the length of an object that is much longer than the length unit you are using to measure. You can count the length units as you measure, or you can place the length units first and then count them."

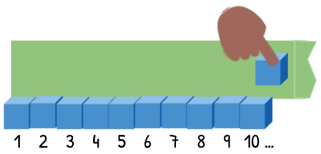
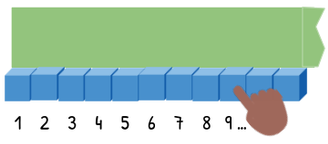
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Place length units along the tape with gaps or overlaps. |  | Ask, "How can you place the unit cubes to make sure you are measuring precisely?" |
| Measure and count simultaneously, counting as they place each length unit. |  | Ask, "How did it feel to measure and count at the same time? How could you check to see if you counted correctly?" |
| Place length units along the entire length first, and then count to find the total amount of length units. |  | Ask, "Why did you decide to place the length units first and then count to find the total?" |

Print Lesson | Small Groups | 15 min

# Activity 2 Measuring Wingspans

**Purpose:** Students measure lengths that are much longer than the length units being used to practice measuring precisely and explore grouping units and counting to find the total amount of length units used.

Presentation Screens X–X


## Materials

- connecting cubes (120 per group), unit cubes (120 per group) **(Manipulative Kit)**
- *Choral Count* chart (from Warm-up, teacher made), masking tape, paper clips (1 in., 120 group), **(Classroom materials)**

**Short on time?** Consider allowing groups to choose 2 of the 3 wingspans to measure for Problem 1 and omit Problem 3.

## Launch

Launch Storyboard Art FPO

X–X **Arrange** students in the same groups as Activity 1.

**Say,** "You are going to help Sean and Trevor by finding the length of 3 more birds' wingspans."

**Read aloud** the introduction and the directions for Problem 1. Have groups work for 7–8 minutes.

**Read aloud** Problems 2 and 3.

[A] **Accessibility: Executive functioning** Invite students to plan a method with their groups for measuring the length and counting the cubes. Refer students to the *Choral Count* chart from the Warm-up for support with writing numbers 100 and greater.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "In your own words, what do you need to do?"
- Ask, "How could you count to find the total amount of length units in this measurement?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** responses for Problem 2. Select and sequence their responses by having students share in the order shown in the *Differentiation* table.

**[L] MLR7: Compare and Connect**

Ask:

- "What is the same about these representations? What is different?"
- "Which of these representations clearly shows the total amount of length units used to measure the length of a prairie falcon's wingspan? Why do you think that?"
- **[EL] Multilingual/English Learners:** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing.

**Display** student work for Problem 2 that shows groups of 10 and remaining ones.

**Ask,** "How many tens are in this representation? Let's count them by 10."

**Say,** "When counting a large number of length units, we can count by 10 and then count on by 1. Let's count on by 1."

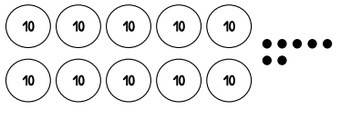
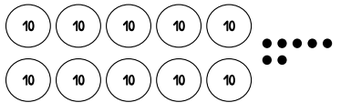
**Key Takeaway:** Say, "When the length of an object is much longer than the length unit you are using to measure, you can group the length units to make tens. Then you can count by tens and ones to find the total amount of length units used."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Count by 1 to find the total amount of length units. | □□□□□□□□□□□□□□□□□□□□… | Ask, “How is this activity like counting collections? How can you count a large collection of objects without counting by 1?” |
| Group and count by 10 and then count on any remaining ones to find the total amount of length units. |   | Ask, “Why did you choose to group and count the length units by tens and ones?” |
| Make tens, count tens and ones separately, and add to find the total amount of length units. |   100 + 7 = 107 | **Extend Thinking** Say, “You counted the tens and ones separately and then added to find the total amount of length units. Talk with your group about whether this strategy will work for lengths with any amounts of tens and ones.” |

Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** Grouping length units to make tens and then counting by tens and ones can be helpful to find lengths that are much longer than the length unit.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)


connecting cube


paper clip


unit cube

X–X **Say,** "You measured lengths with connecting cubes, paper clips, and unit cubes."

**Use the Think-Pair-Share routine.** Ask:

- "Which of these length units would you choose to measure a shorter length? Why?"
- "Which of these length units would you choose to measure a longer length? Why?"

**Say,** "In the next lesson, you will continue to think about choosing a length unit to use when measuring a longer length."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Measure length and count the number of length units for lengths up to 120 length units.
2. **Goal:** Represent measurements of lengths up to 120 length units using drawings, numbers, or words.
3. **Language Goal:** Compare similarities and differences with measuring longer and shorter lengths. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 1 | NY-1.MD.2<br>NY-1.NBT.1 |
| **Spiral Review** | | | |
| Fluency | 2–7 | 1 | NY-1.OA.6b |
| | 8–9 | 1 | NY-1.OA.6a |
| | 10 | 2 | NY-1.OA.2 |

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Counting Collections


**Stage 4 – Estimate and Count up to 120**
**Pairs** | **15 min** | NY-1.NBT.1

Students estimate and then count collections and represent how many and how they counted.

**Materials**

- 10-frames **(Manipulative Kit)**
- collections of objects (99–120 objects, one per pair), cups or paper plates **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 2.**

## Cover Up


**Stage 9 – Add Within 100 With Composing**
**Pairs** | **15 min** | NY-1.NBT.4

Students add 2 numbers, with and without composing a ten, to practice strategies for addition within 100.

**Materials**

- centimeter cubes (two per pair), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B), Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 5, Sub-unit 3.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Estimate and Measure

Placeholder for Center Icon

**Stage 2 – Is It Shorter?**
**Pairs** | **15 min** | NY-1.MD.1

Students estimate and compare the lengths of different objects.

### Materials

- connecting cubes (5 per pair) **(Manipulative Kit)**
- brown bag (one per pair), objects to measure (7–10 per pair) **(Classroom materials)**
- Directions, Work Mat (optional) **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 1.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

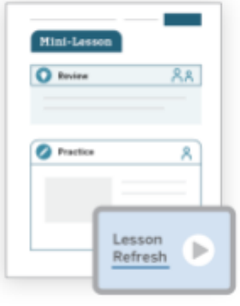
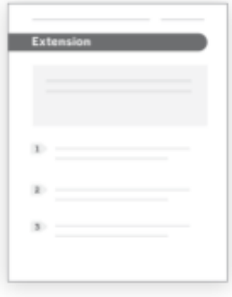
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

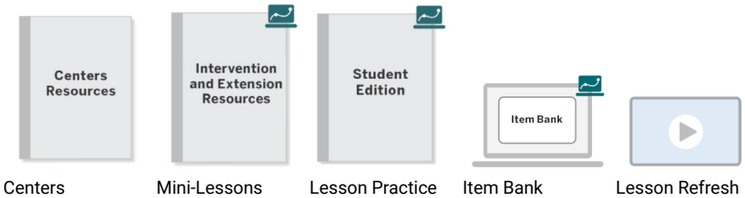
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 8**

# Measuring More Wingspans

## Using Tens Rods to Measure Lengths Up to 120 Length Units

Let's use what we know about tens and ones to measure lengths.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Measure length and use counting or place value understanding to find the number of length units up to 120.
2. **Goal:** Read and write numbers to 120.
3. **Language Goal:** Explain how to measure a length with tens rods and single unit cubes and count to find the total amount of length units. **(Speaking and Listening)**

Students continue to develop precise measurement skills as they measure more lengths up to 120 length units. After measuring a given length with unit cubes, students are introduced to a new measurement tool made of multiple copies of unit cubes, a tens rod. Students use tens rods and single unit cubes to measure the same length and compare their measurements to notice that the length is the same number of unit cubes. They then use tens rods and single unit cubes to measure more lengths, using counting to find the measurements, including some measurements between 100 and 120 length units. **(MP5, MP6, MP7)**

### Prior Learning

In Unit 4, students developed an understanding of the base-ten structure of numbers to 99. In Lesson 7, they measured lengths much longer than the length units being used and discussed grouping and counting the units by tens and ones to find the total amount of unit cubes used.

### Future Learning

In Lesson 9, students will create and interpret representations of measurements between 100 and 120 unit cubes and record the measurements with written numerals.

## Rigor and Balance

- Students continue to build **conceptual understanding** of length measurement.
- Students measure length with nonstandard length units to practice **procedural skills**.
- Students **apply** their knowledge of counting and place value within 100 to find and record measurements up to 120 length units.

## Vocabulary

**Review Vocabulary**

- *digit*
- *estimate*
- *length*
- *a one/ones*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.MD.2**

Measure the length of an object using same-size "length units" placed end to end with no gaps or overlaps. Express the length of an object as a whole number of "length units."

*Also Addressing*: NY-1.NBT.1

**Mathematical Practices:** MP5, MP6, MP7

**Building On**

**NY-1.NBT.2**

**Math Identity/Community statement.**
Why is it helpful for mathematicians to try out different tools when doing math?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.MD.2, NY-1.NBT.1

## Warm-Up **Fluency** Whole Class | 10 min

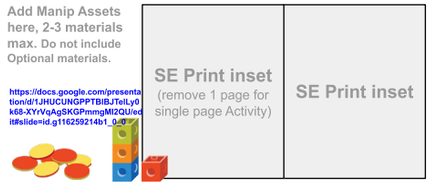
Students use the **Choral Count** routine, in which they count as a class by 10 from 10 to 120. As the count is recorded, students may notice patterns or structures in the count such as a change in the number of digits and consider why those patterns or structures show up. **(MP7)**


Screens X–X

## Activity 1 Pairs | 15 min

Students estimate and measure the length of a tape that represents a bird's wingspan with unit cubes. They measure the length again with ten rods. They compare the two measurements to recognize that it is more efficient to use tens rods to measure longer lengths.

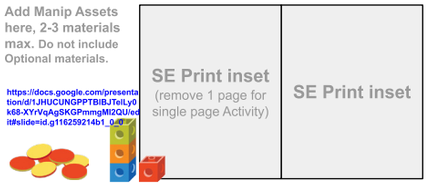
**Additional Prep** Prepare: Cut and label tape strips only with the letter. Tape A: 117 cm, Tape B: 113 cm, Tape C: 102 cm, Tape D: 94 cm, Tape E: 63 cm, Tape F: 109 cm. Consider making additional sets of strips to keep groups small.




Screens X–X

## Activity 2 Pairs | 15 min

Students measure the lengths of other tapes that represent birds' wingspans using tens rods and single unit cubes. They examine different counting strategies and discuss how knowing that 10 tens make 100 can help them count more efficiently when measuring longer lengths.




Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how the tens rod is a helpful tool for measuring longer lengths with unit cubes by determining which of two representations matches a given length.


Screens X–X

## Center Independent | 15 min

Students are introduced to the Center, *Estimate and Measure, Stage 3*, in which they estimate the lengths of different classroom objects and then measure the objects with familiar nonstandard length units.


## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- Unit Story, *YY*
- **Lesson Resources:** Activity 2 PDF (optional)
- **Manipulative Kit:** tens rods, unit cubes
- **Classroom materials:** *Choral Count* chart (from Lesson 7), masking tape

Print Lesson | Whole Class | 10 min

# Warm-Up Choral Count

**Fluency**

**Purpose:** Students count by 10 from 10 to 120 to notice patterns in the count and think about how to write the numbers with 10, 11, or 12 tens.

Presentation Screen X


Choral Count

Count aloud with your classmates by 10, starting at 10.

10
20
30
40
50
60
70
80
90
100
110
120

## Launch

**Use the Choral Count routine.**

X-X **Say,** "Let's count by 10, starting at 10."

**Display** each number as students count.

**Ask:**

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

## Connect

X-X **Record** students' responses as they share. Consider highlighting different patterns using different colors.

**Ask:**

- "How many tens are in 90? How do you know?"
- "What number is 10 more than 90? How do you know?"

**Say,** "100 is 10 more than 90 because it is the number that comes after 90 when counting by 10."

**Note:** Leave the Choral Count displayed so students can refer to it as they record lengths greater than 99 units.

**Students might say . . .**

Every number has a 0 as the ones digit.

The numbers 100, 110, and 120 have 3 digits.

I notice the tens digit in each number goes up by 1 until 90, and then it starts over at 0.

I notice that after 100, the count starts over with 10 and then 20.

Print Lesson | Pairs | 15 min

# Activity 1 Using a New Tool

**Purpose:** Students measure the length of an object using unit cubes and then using tens rods to notice that the total amount of length units is the same.

Presentation Screens X–X


## Materials

- Unit Story, *YY*
- tens rods (12 per pair), unit cubes (120 per pair) **(Manipulative Kit)**
- *Choral Count* chart (from Lesson 7), masking tape **(Classroom materials)**

## Launch

X–X **Read aloud** page X of the Unit Story, *YY*.

**Say:**

- "The guide shared that visitors are invited to participate in a scavenger hunt where they search other parts of the sanctuary to find tapes that show more birds' wingspans. Sean and Trevor were excited because they knew this scavenger hunt would be another chance for them to compete."
- "Today you will move around the room to measure the lengths of different birds' wingspans using unit cubes."

**Read aloud** the introduction and Problems 1 and 2. Assign each pair to one of the 6 tapes. Have students complete the problems independently for 2 minutes.

**Read aloud** Problem 3 and have students work with a partner for 2 minutes.

**Distribute** tens rods to each pair and have them share what they notice.

**Ask** (if not yet mentioned), "What is the length of the new tool? How do you know?"

**Say**, "Some measurement tools are created to have copies of the same length unit in one tool. This tool is called a tens rod because it is a rod that is made up of 10 unit cubes."

**Use the Think-Pair-Share routine.** Say, "Talk with your partner about how you might use this new tool to measure your assigned tape again."

**Read aloud** Problems 4 and 5 and have students work in pairs for 4 minutes.

[A] **Accessibility: Conceptual processing** Guide processing by inviting students to rephrase directions in their own words. Display the paraphrased student directions and keep them visible throughout the activity.

## Monitor

After/While students have completed/complete **Problem 4**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to do?"
- Ask, "Where will you start measuring? What tool will you use to start?"

**[EL] English/Multilingual Learners:** After asking students, "What are you trying to do?" use wait time to give them time to process. Then, point to and read the directions and encourage students to continue to refer to them.

## Connect

X–X **Invite students to share** responses for Problem 4, demonstrating how they used tens rods and single unit cubes to measure the length. Select and sequence their responses using the last three rows in the *Differentiation* table.

**Ask,** "How are tens rods useful for measuring longer lengths?"

**Key Takeaway:** Say, "Tens rods can be useful for measuring lengths that are much longer than a unit cube because there are 10 unit cubes in each rod."

**Student Edition**

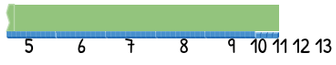
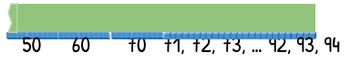
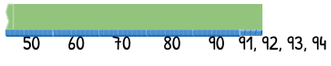
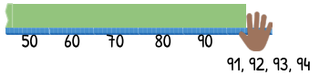
SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

****Extend Thinking****

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Measure with the most tens rods possible and then use unit cubes; count the tens rods and unit cubes by 1. |  13 unit cubes | Ask, "You counted each of the tens rods as 1 length unit. How many unit cubes are in 1 tens rod?" |
| Measure with less than the possible amount of tens rods and then use unit cubes; count by 10 and then 1 to find the total. |  94 unit cubes | Ask, "How did you decide when to switch from using tens rods to unit cubes? Why might it be helpful to use more tens rods?" |
| Measure with the most possible tens rods and then use unit cubes, and count or use place value understanding to find the total. |  94 unit cubes | ****Extend Thinking****<br>Ask, "If you only had tens rods and no unit cubes, could you still find the length of this tape? How would you do that?" |
| Measure with only tens rods, recognizing that only some of the units in the last ten are included in the measurement, and count or use place value understanding to find the total. |  94 unit cubes | Ask, "Why did you only count some of the units in the last ten?" |

Print Lesson | Pairs | 15 min

# Activity 2 Measuring With Tens Rods

**Purpose:** Students measure lengths up to 120 length units with tens rods and single unit cubes to practice using a new measuring tool.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "You and your partner already measured the length of one bird's wingspan. Next you and your partner will choose 3 more wingspans to measure." Alternatively, you can assign pairs 3 tapes to measure from Activity 1.

**Read aloud** the introduction and directions for Problem 1.

**[A] Accessibility: Conceptual processing** Guide processing by providing questions students can ask themselves to internalize comprehension and link this activity to prior knowledge. For example, "Does this situation remind anyone of something we have done before? How so?"

### Materials

- Activity 2 PDF (for display, optional) **(Lesson Resources)**
- tens rods (12 per pair), unit cubes (120 per pair) **Manipulative Kit)**
- *Choral Count* chart (from Lesson 7), masking tape **(Classroom materials)**

**Short on time?** Consider allowing pairs to choose 2 of the 3 wingspans to measure for Problem 1 and omit Problem 2.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What might be a good first step to measure the tape?"
- Ask, "How can you use tens rods and single unit cubes to find the length of the tape?"

**[L] MLR1: Stronger and Clearer Each Time**
Have students complete Problem 2 with another pair. Encourage listeners to ask clarifying questions such as:

- "Can you tell me more about . . .?"
- "How did you know . . . ?"
- **[EL] Multilingual/English Learners:** Strategically pair students with partners who speak the same primary language. As students discuss Problem 2 with another pair, encourage everyone to use gestures and/or visuals as they share.

## Connect

Connect Storyboard Art FPO

X–X **Display** a pair's measurement of Tape B with tens rods and unit cubes. Alternatively, you may display the Activity 2 PDF.

**Say,** "This tape shows how one pair used tens rods and single unit cubes to measure the length of a Northern Goshawk."

**Use the Think-Pair-Share routine.** Ask, "What is the length of the wingspan? How do you know?" Select and sequence responses by having pairs share in the order shown in the *Differentiation* table. Have students point to or move the blocks as they count.

**Say,** "10 groups of ten is 100." Gather and group 10 of the tens rods.

**Ask,** "If you know there are 10 tens in a measurement, from what number could you begin counting?"

**Key Takeaway:** Say, "When measuring a length with unit cubes, you can count the tens rods by ten and the unit cubes by one to find and record the length of the object. It can be helpful to notice if you used 10 tens rods because then you can start counting at 100."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Describe counting by ones to find the length. | We counted by ones and got 113 unit cubes. | Ask, "How many unit cubes are in each tens rod? How can you use that to count by a number other than 1?" |
| Describe counting by tens and and then counting on by ones to find the length. | We counted the tens rods by 10 and then counted on by ones and got 113 unit cubes. | Ask, "You counted by tens and then ones. How can you find the total another way?" |
| Describing counting the tens and the ones separately and then using addition to find the length. | We counted the tens rods by 10 and got 110. Then we added the 3 ones and got 113 unit cubes. | **Extension**<br>Say, "Talk with your group about how you see the parts of this number in the representation." |
| Describe grouping 10 tens to make a hundred and then counting the rest to find the length. | We found the total by grouping 10 tens rods to make 100, and then we had 1 ten and 3 ones left, so we recorded 113 unit cubes. | |

Print Lesson | Whole Class | 5 min

# Synthesis

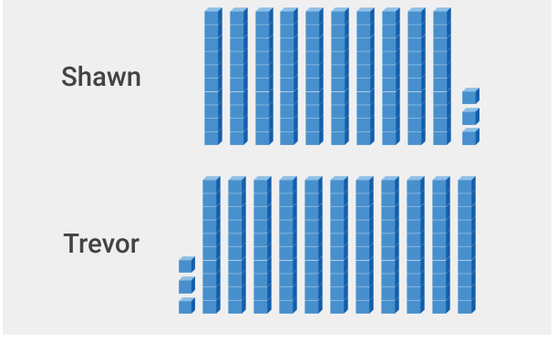
**Lesson Takeaway:** It can be helpful to use tools with copies of a length unit to measure lengths that are much longer than the length unit. Tens rods are helpful when measuring with unit cubes because counting by 10 and 1 can be used to find the total amount of cubes in a length.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)




**X–X Say:**

- "Sean and Trevor both used tens rods and single unit cubes to measure the wingspan of a Laughing Gull. Then they rearranged the tools they used."
- "The length of a Laughing Gull's wingspan is 113 unit cubes." Record *113 unit cubes* on the slide.

**Ask:**

- "Which representation shows the length of the wingspan? Explain your thinking." Consider annotating the images as students respond.
- "How did the tens rods help you find the representation that shows 113 unit cubes?"

**Say,** "Tens rods are a helpful tool for measuring lengths with unit cubes because you can use the tens and ones to find the total length."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Measure length and use counting or place value understanding to find the number of length units up to 120.
2. **Goal:** Read and write numbers to 120.
3. **Language Goal:** Explain how to measure a length with tens rods and single unit cubes and count to find the total amount of length units. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.MD.2<br>NY-1.NBT.1 |
| **Spiral Review** | | | |
| Fluency | 4–9 | 1 | NY-1.OA.6b |
| | 10–15 | 1 | NY-1.OA.6a |

Print Lesson | Group Type | X min

# Let's Play
## Estimate and Measure, Stage 3

**Purpose:** Students apply their understanding of measurement to estimate the lengths of objects and then measure and record the exact lengths of the objects.

**Presentation Screens X–X**


**Materials**

- connecting cubes (50–60 per student), tens rods (12 per student), unit cubes (100 per student) **(Manipulative Kit)**
- objects to measure (5–6 per student), paper clips (50–60 per student) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

## Launch

Launch Storyboard Art FPO

X–X **Demonstrate** how to play *Estimate and Measure*. As you demonstrate:

- **Say,** "First, choose an object to measure. Then choose a length unit to measure with – connecting cubes, paper clips, or unit cubes."
- **Display** an unsharpened pencil and unit cubes.
- **Say,** "Before measuring, estimate the length of your object, and record your estimate. An *estimate* is a guess based on what you know."
- **Ask,** "About how long is this pencil in unit cubes?" Think aloud to estimate the length, and record the estimate on the Recording Sheet.
- **Say,** "Measure the length of your object with your chosen length unit. Talk with a partner about how you would measure the length of this pencil with unit cubes."
- **Demonstrate** measuring the pencil with unit cubes, and record the length.
- **Say,** "You will estimate and measure the lengths of objects. Challenge yourself to choose both long and short objects."

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** the procedural skills that students use to measure – lining up length units with no gaps or overlaps, aligning length units with an object's endpoints, and using the same-size length units. Note how students determine lengths that are not a whole number of units.

## Connect

Connect Storyboard Art FPO

X–X **Display** an object with a length of approximately 2 ft, such as a sentence strip.

**Ask,** "About how long do you think this is in unit cubes? Explain your thinking."

**Have students share** their estimates. Select and sequence their responses in the order shown in the *Differentiation* table.

**Provide** tens rods and unit cubes, and have a pair of students measure the length of the object. Record the length.

**Say,** "When you estimate, the goal is to get close to the actual measurement. As you estimate and measure more lengths, your estimates will get closer to the actual lengths."

**Key Takeaway:** Say, "One way you can estimate the length of an object is to think about how many copies of the length unit it will take to equal the length of the object you are measuring. For longer lengths, imagining groups of units, like tens rods, is helpful. Another way you can estimate the length of an object is to picture an object of known length and compare."

**Centers Resources**

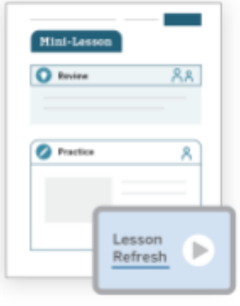
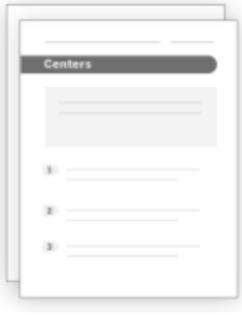
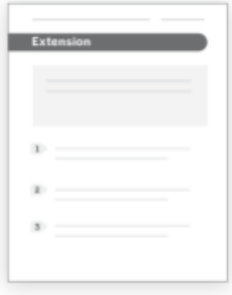

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Make a guess. | I think the sentence strip is about 126 unit cubes long. | Ask, "How did you estimate? Can you picture in your mind how many unit cubes you would need to measure the length of the sentence strip?" |
| Visualize one length unit and mentally repeat it. | I think the sentence strip is about 70 unit cubes long because I pictured one unit cube next to it and then thought about how many more would fit. | Ask, "Because the sentence strip is long, that is a lot of unit cubes to picture. How many unit cubes are in a tens rod? How could you use a tens rod to help you estimate the length of the sentence strip?" |
| Visualize a group of length units, like a tens rod, and mentally repeat it. | I think the length of the sentence strip is about 60 unit cubes. I imagined tens rods next to it, and I think it would take 5 tens rods to measure the length. | Ask, "What is another object you measured with unit cubes? How could you use that length to help you estimate the length of the sentence strip?" |
| Visualize an object of known length and use it as a benchmark. | I think the length of the sentence strip is about 64 unit cubes because it looks like it is a little longer than my desk, and the desk is 60 unit cubes long. | Ask, "How did you choose which object to use to help you estimate?" |

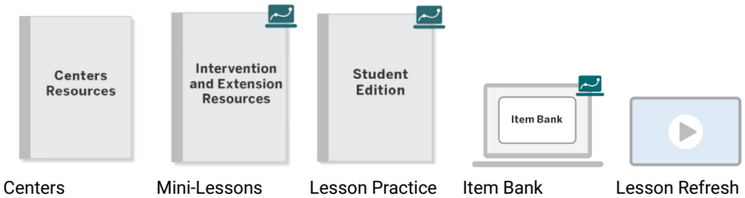
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 9**

# From Head to Claw

## Writing and Interpreting Lengths Between 100 and 120 Length Units

Let's create and interpret representations of lengths up to 120 length units.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Make and interpret base-ten representations of length measurements of 100–120 length units.
2. **Goal:** Represent numbers 100–120 with written numerals.
3. **Language Goal:** Describe similarities and differences in how the numbers 0–20 and 100–120 are written. **(Speaking and Listening)**

Students measure a length between 100 and 120 length units with tens rods and unit cubes and then represent the length with a drawing. They then interpret peers' representations and record the measurements with written numerals and discuss patterns they notice in the numbers. Students will likely represent the amounts as tens and ones; however, some students might try out grouping 10 tens to show 100. Both strategies should be honored and discussed; however, 100 should be discussed as an amount rather than a unit. Students will be introduced to 100 as a unit in Grade 2. **(MP6, MP7, MP8)**

### Prior Learning

In Unit 4, students interpreted and represented numbers within 100. In Lesson 8, students measured lengths up to 120 length units using tens rods and unit cubes and recorded the measurements with written numerals.

### Future Learning

In Grade 2, students will be introduced to a hundred as a unit composed of 10 tens and use place value understanding to read and write numbers within 1,000.

## Rigor and Balance

- Students continue to build **conceptual understanding** of length measurement.
- Students measure length with nonstandard length units to practice **procedural skills**.
- Students **apply** their knowledge of counting and place value within 100 to represent and interpret measurements between 100 and 120 length units.

## Vocabulary

**Review Vocabulary**

- *digit*
- *length*
- *a one/ones*
- *a ten/tens*

## Standards

**Addressing**

**NY-1.NBT.1**

Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

*Also Addressing*: NY-1.MD.2

**Mathematical Practices:** MP6, MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-1.NBT.2 | NY-2.NBT.1 |

**Math Identity/Community statement.** Sean and Trevor have fun competing together. How do you have fun with others?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard(s): NY-1.NBT.1, NY-1.MD.2

## Warm-Up **Fluency** Whole Class | 10 min

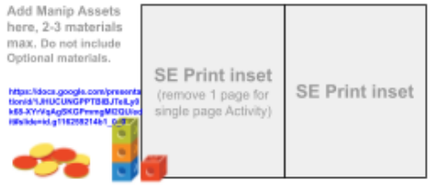
Students use the **Notice and Wonder** routine to share what they notice and wonder about different base-ten representations of the same length measured in unit cubes.


Screens X–X

## Activity 1 Small Groups | 15 min

Students measure the length of a tape that represents a bird's height with tens rods and unit cubes and then create displays with drawings that represent the heights for other groups to interpret.

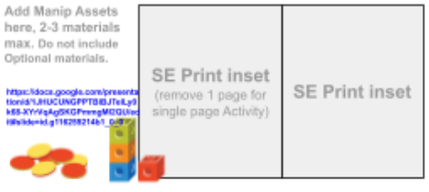
**Additional Prep** Prepare: Cut and label tape strips only with the letter. Tape A: 118 cm, Tape B: 107 cm, Tape C: 112 cm, Tape D: 120 cm, Tape E: 109 cm, Tape F: 103 cm. Consider making additional sets of strips to keep groups small.




Screens X–X

## Activity 2 Small Groups | 15 min

Students use the **Gallery Tour** routine to analyze other groups' displays from Activity 1 and determine the heights that are represented. During the Connect, students notice and discuss patterns in the written numerals 0–20 and 100–120.




Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how to represent a number between 100–120 with a written numeral.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency with counting up to 120, practice strategies for adding within 100, and measure objects by comparing.

- Counting Collections, Stage 4
- Estimate and Measure, Stage 3
- Last Number Wins, Stage 2


## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

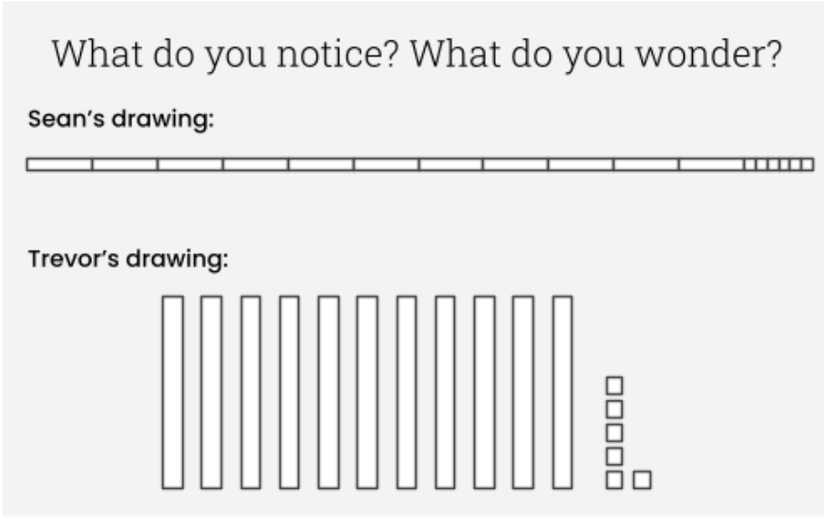
- **Lesson Resources:** Activity 2 PDF, *Patterns in Written Numbers*
- **Manipulative Kit:** tens rods, unit cubes
- **Classroom materials:** chart or poster paper, *Choral Count* chart (from Lesson 7), markers, masking tape, sticky notes

Print Lesson | Whole Class | 10 min

# Warm-Up Notice and Wonder

**Purpose:** Students examine two base-ten drawings that represent the same length to make connections between the drawings and to see examples of representations they will create in Activity 1.

Presentation Screen X


## Launch

X–X **Display** the image.

**Use the Notice and Wonder routine.**

**Say,** "Trevor and Sean both measured the length of the same feather at the bird sanctuary using tens rods and unit cubes. They each made a drawing to represent their measurement."

**Ask,** "What do you notice? What do you wonder?"

**Use the Think-Pair-Share routine.**

## Connect

X–X **Record** students' responses as they share.

**Ask:**

- "What is the same about these drawings? What is different?"
- "How long was the feather Sean and Trevor measured? How do you know?"

**Say,** "Both drawings show the tens rods and unit cubes they used when measuring. Their drawings are different, but both drawings show that the length of the feather is 116 unit cubes."

**Students might say . . .**

I notice that Sean's drawing shows how the tools looked when he measured.

I notice that both drawings have 11 tens and 6 ones.

I wonder why Trevor drew his tens rods standing up instead of laying down.

I wonder why Trevor's tens and ones are bigger than Sean's tens and ones.

Print Lesson | Small Groups | 15 min

# Activity 1 Representing a Secret Height

**Purpose:** Students measure a length with tens rods and unit cubes and then create a base-ten representation of the measurement to prepare for a Gallery Tour in Activity 2.

**Presentation Screens X–X**


## Materials

- tens rods (12 per pair), unit cubes (120 per pair) **(Manipulative Kit)**
- chart or poster paper, *Choral Count* chart (from Lesson 7), markers, masking tape, sticky notes **(Classroom materials)**

## Launch

Launch Storyboard Art FPO

**X–X Say:**

- "After finishing the wingspan scavenger hunt, Sean was excited to have another win over his brother. But Trevor was ready for the next challenge. The guide was having so much fun watching the boys measure and compete that she quickly set up another challenge for the boys."
- "The guide pointed out marks on the walls that the boys had not noticed. She explained that the marks showed the height of different birds. Sean and Trevor were surprised to see that some of the birds were as tall as Sean! The boys scrambled to start measuring the heights right away."

**Arrange** students in groups of 3 or 4, and distribute a sticky note to each group.

**Read aloud** the introduction and Problems 1 and 2. Assign one of the 6 tapes to each group.

**Say,** "Do not write the measurement on your display. Instead, attach the sticky note with the secret height to the back of your poster when you are finished."

**[A] Accessibility: Executive functioning** Invite students to make a plan with their group to decide how they will measure and represent the length. Listen for and clarify any questions groups have as they make sense of their plan.

**[EL] Multilingual/English Learners:** If possible, group students with different levels of English language proficiency together as they complete this activity. Allow multilingual learners to share in their primary language first before sharing in English.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**X–X If students need help getting started . . .**

- Ask, "What do you need to do first?"
- Ask, "How can you use one of the drawings from the Warm-up to help you create your poster?"

## Connect

Connect Storyboard Art FPO

**X–X Say,** "In the next activity, other groups will use your drawing to find the secret height you measured and represented. Make sure the letter of the tape you measured is clearly written on your poster."

**Have groups share** their posters with another group. Say, "Ask questions and give feedback to help each other make your representations clear."

**Say,** "Make updates to your poster, based on the feedback you got from your peers." Have students work for 2 minutes.

**Key Takeaway:** Say, "You can use what you know about numbers as amounts of tens and ones to create representations of lengths that are between 100–120 length units."

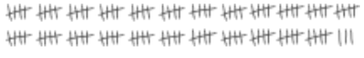
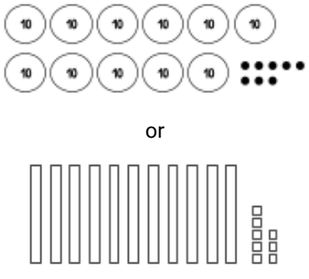
Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Make a drawing that shows groups of a number other than 10 and any remaining ones. |  | Ask, "I see you organized your secret height in groups of 5. What is another way you could organize your drawing so that other groups do not have so much to count?" |
| Make a drawing that shows a linear representation of groups of 10 and any remaining ones. |  | Ask, "I can see in your drawing the tens rods and unit cubes you used to measure the secret height. What is another way you could represent the height?" |
| Make a drawing that shows groups of 10 and any remaining ones. |  | Ask, "How do you think other groups will use your representation to find the secret height?" |

Print Lesson | Small Groups | 15 min

# Activity 2 Finding the Secret Heights

**Purpose:** Students interpret the representations from Activity 1, record the measurements with written numerals, and discuss patterns they notice in the numbers to practice reading and writing numerals from 100–120.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "Now each group will do a *Gallery Tour* to look at other groups' representations and find the secret height that is represented."

**Read aloud** Problems 1 and 2, and say, "When everyone in your group has recorded the height, look at the sticky note on the back of the poster to check your thinking. After your group has visited all of the posters, you will discuss Problem 2."

**Use the Gallery Tour routine.** Have students complete the problems.

[A] **Accessibility: Memory and attention** Vary the task demands by providing students the choice to visit any 3 posters. Have students complete the remaining rows of the table at a later time, or as time permits.

### Materials

- Activity 2 PDF, *Patterns in Written Numbers* (for display) **(Lesson Resources)**
- *Choral Count* chart (from Lesson 7) **(Classroom materials)**

**Short on time?** Consider limiting the number of posters that groups visit.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What is this representation showing? Describe it."
- Ask, "Look at how this drawing is organized. Where do you see an amount of tens? Where do you see an amount of ones?"

## Connect

Connect Storyboard Art FPO

X–X **Display** the table for Problem 1.

**Invite students to share** the secret heights they recorded for each tape. If groups disagree, invite students to justify their thinking using the posters.

**[L] MLR7: Compare and Connect**

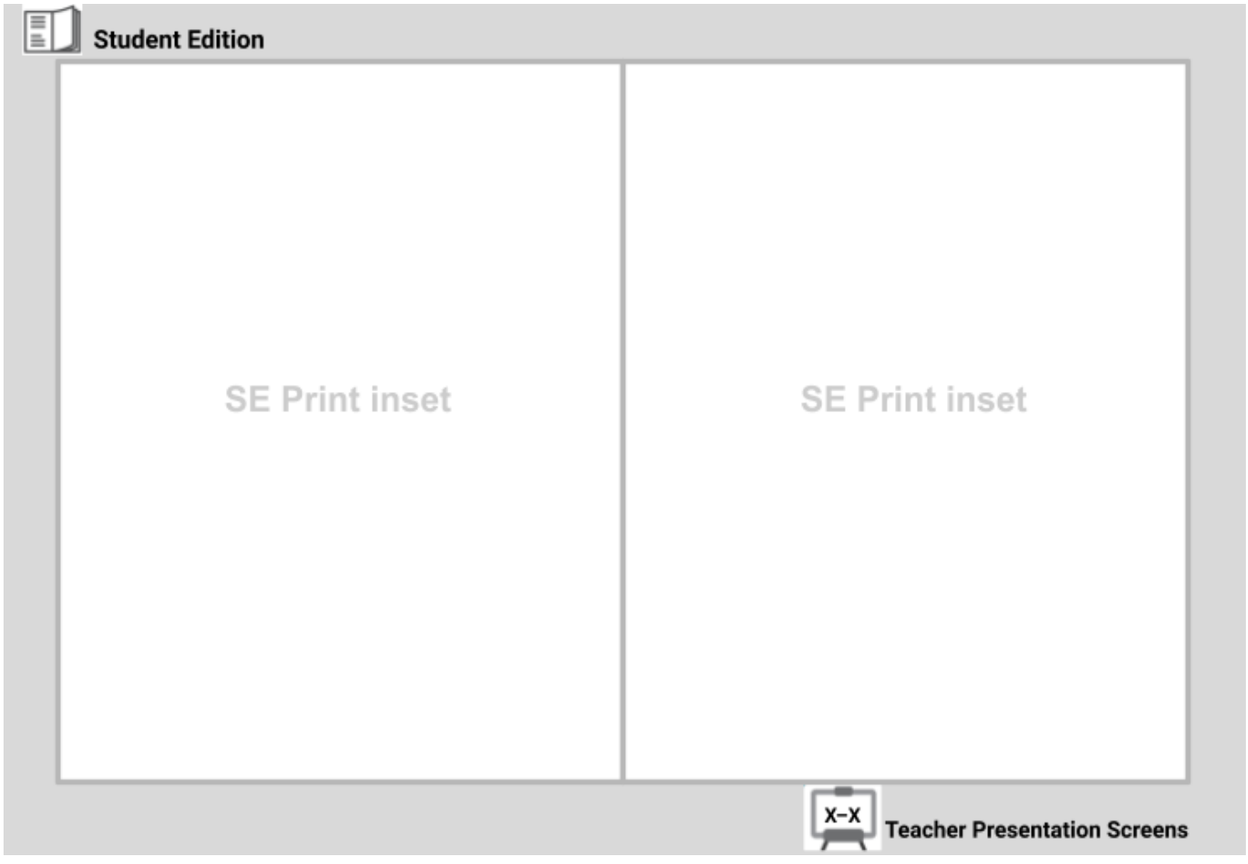
Have students share their responses for Problem 2. Select and sequence their responses by having students share in the order shown in the *Differentiation* table. Consider highlighting students' noticings using different colors.

**Display** the Activity 2 PDF, *Patterns in Written Numbers*.

**Ask:**

- "How are the numbers 0–20 and 100–120 alike? How are they different?"
- "What questions do you still have about writing numbers from 100 to 120?"

**Key Takeaway:** Say, "When writing numbers from 100–120, you write the numbers with 3 digits. You can use the same pattern that you use when writing numbers from 0–20."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Notice a similarity in the digits in some of the numbers. | I notice that 4 of the numbers have zeros. | Ask, "Where did you write the 0 in each number? What does the 0 represent?" |
| Notice a similarity in the digits in all of the numbers. | I notice that all of the numbers are written with 3 digits.<br>or<br>I notice that all of the numbers start with a 1 as the first digit. | Ask, "Why do you think this is the same for all of the numbers?" |
| Recognize that all of the numbers are greater than 100. | I notice that all of the numbers are greater than 100. | ****Extend Thinking****<br>Ask, "Talk with your group about Tape E. How do the digits in this number connect to the representation?" |
| Recognize that the digits match the amounts of tens and ones. | I notice that each number shows the tens and the ones. For Tape A, there were 11 tens and 8 ones, so we wrote 118. For Tape B, there were 10 tens and 7 ones, so we wrote 107. | ****Extend Thinking****<br>Say, "Talk with your group about how you might represent this number with different amounts of tens and ones." |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Numbers within 120 can be represented as tens and ones. When representing an amount of 100–120 length units with a written numeral, the number is written with 3 digits.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

X–X **Say,** "Sean and Trevor worked together to measure the height of a King penguin and made this drawing to represent the penguin's height. They recorded the height as *10 tens 6 ones.*"

**Use the Think-Pair-Share routine.** Ask, "How would you explain to Sean and Trevor how to write the number that matches the total number of cubes?" Record *106 unit cubes*.

**Say,** "Numbers up to 120 can be represented with tens and ones. When recording measurements with 100–120 length units, the numbers are written with 3 digits."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Make and interpret base-ten representations of length measurements of 100–120 length units.
2. **Goal:** Represent numbers 100–120 with written numerals.
3. **Language Goal:** Describe similarities and differences in how the numbers 0–20 and 100–120 are written. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1–3 | 1 | NY-1.NBT.1<br>NY-1.MD.2 |
| **Spiral Review** | | | |
| Fluency | 4–9 | 1 | NY-1.OA.6b |
| | 10, 11 | 1 | NY-1.OA.6a |
| | 12 | 2 | NY-1.OA.2 |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Counting Collections


**Stage 4 – Estimate and Count up to 120**
**Pairs** | **15 min** | NY-1.NBT.1

Students count collections and represent how many and how they counted.

**Materials**

- 10-frames **(Manipulative Kit)**
- collections of objects (99–120 objects, one per pair), cups or paper plates **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 2.**

## Estimate and Measure


**Stage 3 – Choose Your Unit**
**Independent** | **15 min** | NY-1.MD.2

Students estimate the length of objects in different length units and then measure and record each length.

**Materials**

- connecting cubes (25–30 per student), tens rods (12 per pair), unit cubes (100 per student) **(Manipulative Kit)**
- objects to measure (5–6 per student), paper clips (25–30 per student) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Last Number Wins

Placeholder for Center Icon

**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students take turns writing numbers in a counting sequence to practice counting by 10 and writing two-digit numbers.

### Materials

- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

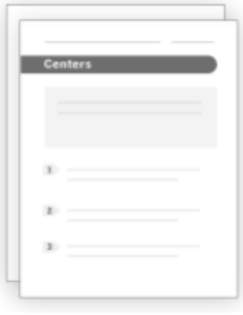
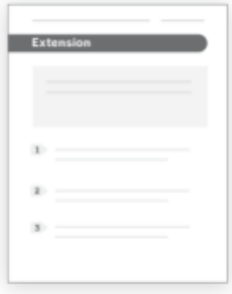
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

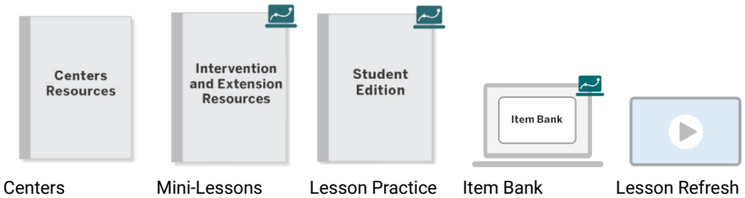
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 10**

# A Bird-friendly Backyard

## Using Addition and Subtraction to Solve Story Problems About Lengths

Let's solve problems about lengths using addition and subtraction.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Measure the lengths of objects and use the measurements to represent and solve a *Put Together/Take Apart, Total Unknown* story problem involving length within 20.
2. **Language Goal:** Ask and answer comparison questions about the lengths of objects that can be answered with a data representation. **(Writing, Speaking and Listening)**
3. **Language Goal:** Explain how an addition or subtraction equation represents a strategy for solving a problem. **(Speaking and Listening)**

Students measure 3 lengths and then solve a *Put Together/Take Apart, Total Unknown* problem to explore how addition can be used to find the combined length. They then ask and answer comparison questions about measurement data to revisit the idea that when comparing two amounts, addition or subtraction can be used to find the difference. **(MP2, MP7)**

### Prior Learning

In Unit 2, students represented and solved *Put Together/Take Apart, Total Unknown* and *Compare, Difference Unknown* story problems. In Unit 3, students added 3 values to find sums within 20. In Sub-units 1 and 2, students compared and measured lengths with non-standard length units.

### Future Learning

In Lesson 11, students will be introduced to *Compare, Bigger Unknown* and *Smaller Unknown* story problems involving length. In Grade 2, students will solve addition and subtraction story problems involving length within 100.

## Rigor and Balance

- Students measure the lengths of objects to practice **procedural skills**.
- Students **apply** their understanding of length measurement and addition and subtraction within 20 to solve real-world problems.

## Vocabulary

**Review Vocabulary**

- *difference*
- *length*
- *longer*
- *shorter*
- *sum*
- *taller*

## Standards

### Addressing

**NY-1.OA.2**

Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.

*Also Addressing*: NY-1.MD.2, NY-1.MD.4, NY-1.OA.4

**Mathematical Practices:** MP2, MP7

**Math Identity/Community statement.**
How do you help to make our classroom a friendly space where everyone can do math?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.OA.2, NY-1.MD.2, NY-1.MD.4, NY-1.OA.4

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about an image showing two hanging bird feeders, one of which is partially hidden. They are asked to share their thinking about how to determine which bird feeder is taller.


Screens X–X

## Activity 1 Pairs | 15 min

Students are given cards with images of bottles used to build a bird feeder. They measure the heights of the 3 bottles in unit cubes, and then solve a *Put Together/Take Apart, Total Unknown* story problem that asks them to find the combined height of the bottles. They discuss how addition can be used to find the total amount of length units it takes to measure the length of 2 or more objects.

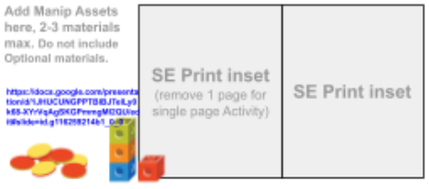
**Additional Prep:** Cut out: Activity 1 PDF


Screens X–X

## Activity 2 Pairs | 15 min

Students interpret data about the length of a plant's shadow at different times of day to ask questions that can be answered by comparing the lengths. They choose a question to answer and review strategies for solving this problem type. They discuss how these types of problems can be solved using either addition or subtraction.

**Additional Prep:** Prepare: *Questions About Shadow Lengths* chart




Screens X–X

## Synthesis Whole Class | XX min

Students review and reflect on how addition and subtraction can be used to solve story problems involving length by generating questions that either compare lengths or add lengths together.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice estimating and measuring length, and counting and writing numbers to 120.

- Estimate and Measure, Stage 3
- Last Number Wins, Stage 2
- Last Number Wins, Stage 3


## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, Activity 2 PDF (optional)
- **Manipulative Kit:** connecting cubes (optional), tens rods, unit cubes
- **Classroom materials:** chart paper, markers, Questions About Shadow Lengths chart (teacher made)

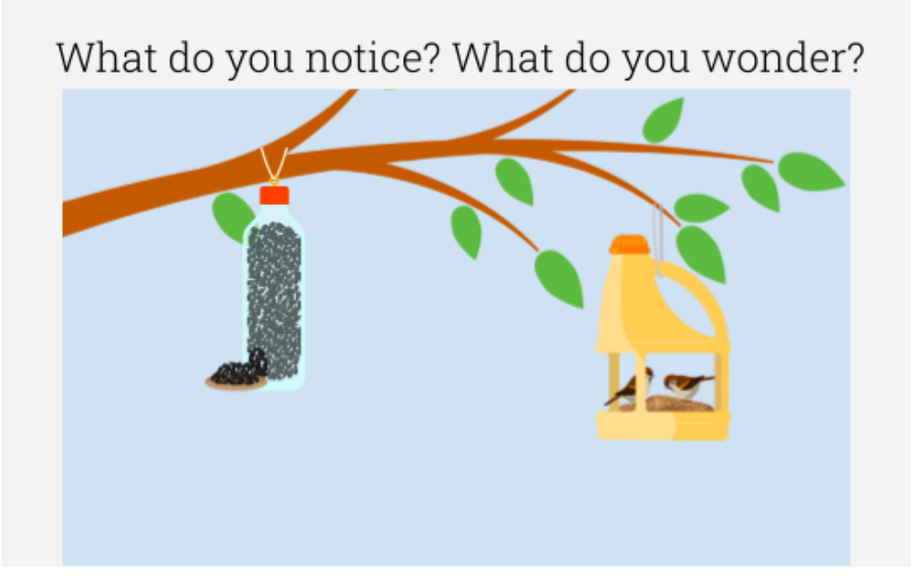
Print Lesson | Whole Class | 10 min

# Warm-Up Notice and Wonder

**Fluency**

**Purpose:** Students [description of the mathematical ideas and connection to Activity 1 (when relevant)].

Presentation
Screen X


## Launch

X–X **Display** the image.

**Use the Notice and Wonder routine.**

**Say,** "This image shows 2 bird feeders that were made out of recycled plastic bottles."

**Ask,** "What do you notice? What do you wonder?"

**Use the Think-Pair-Share routine.**

## Connect

X–X **Record** students' responses as they share.

**Ask:**

- "Which bird feeder do you think is taller? Explain your thinking."
- "How could you find out which bird feeder is taller?"

**Students might say . . .**

I notice there are birds in only one of the bird feeders.

I notice that the bird feeders are filled with different kinds of birdseed.

I wonder why the birds chose to use the bird feeder on the right.

I wonder if the 2 bird feeders are the same height.

Print Lesson | Pairs | 15 min

# Activity 1 Building Bird Feeders

**Purpose:** Students measure 3 objects of different lengths and then apply their understanding of addition and measurement to solve a story problem that involves finding the combined length of the 3 objects.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

**X–X** Say:

- "After their visit to the bird sanctuary, Sean and Trevor wanted to create a safe and welcoming space for birds in their backyard. Dad shared an idea for making a bird feeder using recycled plastic bottles."
- "The boys knew right away where to find bottles. Anytime their mom found small plastic bottles, she cleaned and then re-used them to store small items in the kitchen junk drawer. Because the bottles were small, Dad offered to help the boys stack 3 bottles together to fill with birdseed and hang in the yard."

**Read aloud** the directions for Problem 1. Give students 5–6 minutes to complete the problem.

**Read aloud** the next set of directions and Problem 2.

**[A] Accessibility: Visual-spatial processing** Help students comprehend the idea of stacking three bottles together by demonstrating stacking three cups together, and gesture to show the total height.

**Materials**

- Activity 1 PDF (one set of cards per pair) **(Lesson Resources)**
- tens rods (3 per pair), unit cubes (30 per pair) **(Manipulative Kit)**

## Monitor

Monitor
Storyboard Art
FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

**X–X** **If students need help getting started . . .**

- Ask, "What do you need to do with each of the bottle cards?"
- Ask (for Problem 2), "What are you trying to find? What could you do first?"

## Connect

Connect
Storyboard Art
FPO

**X–X** **Invite students to share** responses for Problem 2. Select and sequence their responses by having students share in the order shown in the *Differentiation* table.

- **[EL] English/Multilingual Learners:** Give students time to formulate and rehearse a response.

**[L] MLR7: Compare and Connect**

Display the 3 representations shown in the *Differentiation* table – a set of cards lined up end to end measured with unit cubes, a set of cards measured individually with unit cubes, and the equation 8 + 6 + 5 = 14.

**Use the Think-Pair-Share routine.** Ask:

- "What is the same about these representations?"
- "What is different?"
- "Where do you see the parts of the equation in the measurement representations?"
- **[EL] Multilingual/English Learners:** Use gestures, pointing, and annotation to highlight the connections students make between the representations.

**Key Takeaway:** Say, "To find the total amount of length units in 2 or more objects, you can put the objects together and measure. You can also use addition to find the total height or length."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Measure again, this time placing the cards end to end to find the total height. |  <br>answer: 19 unit cubes<br>equation: 8 + 6 + 5 = 19 | Ask, "You lined up the bottles and measured the total height. Is there a way you can solve this problem without measuring again?" |
| Count the unit cubes they already used to measure the 3 lengths for Problem 1 to find the total height. |  <br>answer: 19 unit cubes<br>equation: 8 + 6 + 5 = 19 | Ask, "You already measured the heights of the 3 bottles in Problem 1. Is there a way you can use the heights you recorded to solve the problem without counting each unit cube?" |
| Use addition to find the total height. | 8 + 6<br>8 + 2 + 4 = 14<br>14 + 5 = 19<br>answer: 19 unit cubes<br>equation: 8 + 6 + 5 = 19 | Ask, "What other equations can be used to represent the total height?" |

Print Lesson | Pairs | 15 min

# Activity 2 Changing Shadows

**Purpose:** Students ask and answer comparison questions about 3 categories of measurement data to notice that they can find the difference between 2 lengths using addition or subtraction.

**Presentation Screens X–X**


## Launch

X–X **[L]** The Launch is structured using the *MLR5: Co-craft Questions* routine.

**Say,** "Sean and Trevor were really excited about the new bird feeder and wanted to do more to make their backyard bird-friendly. They researched plants that birds in their area use for feeding and building nests, and then the family worked together to plant some milkweed in their backyard. While playing, the brothers noticed that the length of the milkweed's shadow changed throughout the day, so they decided to measure the length of the shadow at different times of day."

**Display** the table of data from the Student Edition and read aloud the introduction.

**Use the Think-Pair-Share routine.** Ask, "What do you notice about this data?"

**Read aloud** Problem 1, and have students share their responses. Record and display students' responses on the *Questions About Shadow Lengths* chart and consider placing a checkmark next to similar questions.

- **[EL] Multilingual/English Learners:** Foster students' metalinguistic awareness by using a think-aloud strategy to model how to craft comparing questions after students have had time to come up with their own questions.

**Read aloud** Problems 2 and 3.

**Provide** access to connecting cubes.

### Materials

- Activity 2 PDF (for display) (optional) **(Lesson Resources)**
- connecting cubes (30 per pair) (optional) **(Manipulative Kit)**
- chart paper, markers, *Questions About Shadow Lengths* chart (teacher made) **(Classroom materials)**

**Short on time?** Consider omitting the Think-Pair-Share discussion in the Launch and sharing between pairs in the Connect.

## Monitor

After/While students have completed/complete **Problem 3**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "Which two categories of data do you want to ask a question about?"
- Ask (for Problem 3), "Read your question again. What data from the table do you need to answer this question?"

## Connect

X–X **Say,** "Meet with another pair, and explain how the equation you wrote for Problem 3 represents how you found your answer." Have students discuss for 2–3 minutes.

**Invite students to share** responses for Problems 2 and 3 with the class. Select students to share who asked and answered questions with *longer* and *shorter*.

**Display** one pair's responses for Problems 2 and 3. Select a pair that used a segmented tape diagram in their response. Alternatively, you may display the Activity 2 PDF.

**Use the Think-Pair-Share routine.** Ask:

- "How does this diagram help you see the difference in the shadow's lengths?"
- "How can you use addition to find the difference between the shadow's lengths?" Record the related addition equation.
- "How can you use subtraction to find the difference between the shadow's lengths?" Record the related subtraction equation.

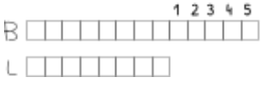
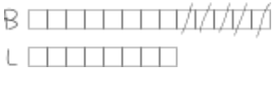
**Key Takeaway:** Say, "In story problems in which two lengths are being compared, you can use addition or subtraction to find the difference between the lengths."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Use counting or addition to find the sum of two lengths. |  <br>equation: 13 + 8 = 21 | Ask, "What is the problem asking you to find? Is your answer a reasonable difference between the two lengths?" |
| Use addition or subtraction to find the difference in the lengths. |  <br>equation: 8 + 5 = 13 | ****Extend Thinking****<br>Say, "Look at the class list of questions that could be asked about the shadow lengths. Choose a question, and talk with your partner about whether you would solve the problem using addition or subtraction." |
| |  <br>equation: 13 – 5 = 8 | |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Addition can be used to find the combined length of more than one object. Addition or subtraction can be used to compare the lengths of two objects.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

Mom found lengths of string to hang the bird feeder.
The red string is 6 paper clips long.
The blue string is 9 paper clips long.

X–X **Use the Think-Pair-Share routine.** Ask:

- "What is a question you can ask that would require comparing the lengths?"
- "What is a question you can ask that would require adding the lengths?"
- "What is an equation that matches your question?"

**Say,** "You can use addition to find the total length of more than one object, and you can use addition or subtraction to compare the lengths of objects to find the difference."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Measure the lengths of objects and use the measurements to represent and solve a *Put Together/Take Apart, Total Unknown* story problem involving length within 20.
2. **Language Goal:** Ask and answer comparison questions about the lengths of objects that can be answered with a data representation. **(Writing, Speaking and Listening)**
3. **Language Goal:** Explain how an addition or subtraction equation represents a strategy for solving a problem. **(Speaking and Listening)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.OA.2 |
| **Spiral Review** | | | |
| Fluency | 2–13 | 1 | NY-1.OA.6b |
| | 14–19 | 1 | NY-1.OA.6a |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Estimate and Measure


**Stage 3 – Choose Your Unit**
**Independent** | **15 min** | NY-1.MD.2

Students estimate the length of objects in different length units and then measure and record each length.

**Materials**

- connecting cubes (25–30 per student), tens rods (12 per pair), unit cubes (100 per student) **(Manipulative Kit)**
- objects to measure (5–6 per student), paper clips (25–30 per student) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

## Last Number Wins


**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students take turns writing numbers in a counting sequence to practice counting by 10 and writing two-digit numbers.

**Materials**

- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 2.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Last Number Wins

Placeholder for Center Icon

**Stage 3 – Numbers to 120 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns writing numbers in a counting sequence to practice counting by 1 and writing numbers up to 120.

### Materials

- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

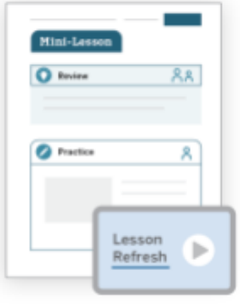
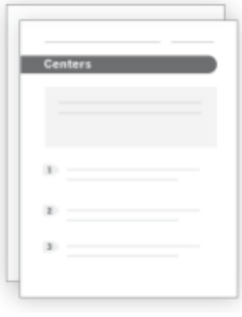
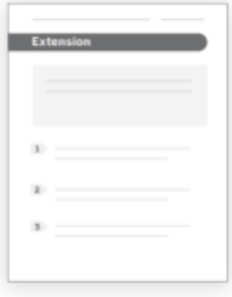
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

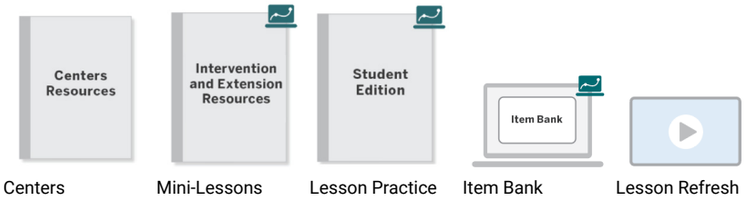
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 11**

# Fascinated With Footprints

## Solving *Compare* Story Problems With Unknowns in All Positions

Let's help Sean and Trevor compare lengths.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Represent and solve *Compare* story problems with unknowns in all positions.
2. **Language Goal:** Compare the structure of a *Compare, Bigger Unknown* and *Smaller Unknown* story problem. **(Reading, Speaking and Listening)**

Students explore two new *Compare* problem types through the context of length measurement. They represent and solve a *Compare, Bigger Unknown* story problem and a *Compare, Smaller Unknown* story problem that compares the same lengths to recognize that the unknown amounts in the problems differ. Students compare and discuss how the same representation can be used to help them understand each problem. Students then solve *Compare* problems with unknowns in all positions and consider whether addition or subtraction can be used to solve problems in which one of the amounts being compared is unknown. **(MP2, MP7, MP8)**

### Prior Learning

In Lesson 10, students represented and solved *Compare, Difference Unknown* story problems about lengths and discussed how some problems can be solved using either addition or subtraction.

### Future Learning

In Lessons 12–15, students will continue to represent and solve story problems in a variety of contexts. In Lesson 12, students will be introduced to *Take From, Start unknown* story problems. In Grade 2, students will solve *Compare* story problems in which the language seems to suggest the opposite operation.

## Rigor and Balance

- Students build **conceptual understanding** of *Compare, Bigger Unknown* and *Compare, Smaller Unknown* story problems.
- Students **apply** their understanding of addition and subtraction within 20 to solve real-world problems involving length.

## Vocabulary

**Review Vocabulary**

- *difference*
- *longer*
- *shorter*
- *sum*

## Standards

**Addressing**

**NY-1.OA.1**

Use addition and subtraction within 20 to solve one step word problems involving situations of adding to, taking from, putting together, taking apart, and/or comparing, with unknowns in all positions. Note: Problems should be represented using objects, drawings, and equations with a symbol for the unknown number. Problems should be solved using objects or drawings, and equations.

*Also Addressing*: NY-1.OA.4, NY-1.OA.6a

**Mathematical Practices:** MP2, MP7, MP8

**Building On**

| | |
|---|---|
| NY-1.MD.2 | |

**Math Identity/Community statement.** Think of a time when you worked hard to solve a challenging problem. How did you feel?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.OA.1, NY-1.OA.4, NY-1.OA.6a

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of subtraction expressions. **(MP7, MP8)**

SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students represent and solve *Compare, Bigger Unknown* and *Smaller Unknown* story problems about footprint lengths. They compare the story problems to recognize that the unknown amount in both problems is one of the amounts being compared. They also discuss how similar representations can be used for both problems.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeiLy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students represent and solve *Compare* story problems involving length with unknowns in all positions. They notice that when the longer length is unknown they can use addition to solve, and when the shorter length is unknown they can use addition or subtraction to solve.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

https://docs.google.com/presentation/d/1JHUCUNGPPTBIBJTeiLy0k68-XYrVqAgSKGPmmgMI2QU/edit#slide=id.g116259214b1_0_0

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on whether to use addition or subtraction to solve a problem in which the shorter length is unknown.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice estimating and measuring length, and counting and writing numbers to 120.

- Estimate and Measure, Stage 3
- Last Number Wins, Stage 2
- Last Number Wins, Stage 3

Exit Ticket or Centers in K-1. (Remove manip assets for Exit Tickets)

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF
- **Manipulative Kit:** connecting cubes (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Fluency**

**Purpose:** Students [description of the mathematical ideas and connection to Activity 1 (when relevant)].

Presentation Screen X


| A | B |
|---|---|
| 10 − 6<br>4 | 9 − 6<br>3 |
| **C** | **D** |
| 10 − 3<br>7 | 9 − 3<br>6 |

**Why these problems?** These expressions lend themselves to using known differences with a minuend of 10 to find unknown differences with a minuend of 9.

## Launch

**Use the Number Talk routine.**

X-X **Display** one expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you determined it."

## Connect

X-X **Record** sums and differences and two or three strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expressions B and D.

**Ask:**

- "How can you use sums of 10 to help you find the difference when you are subtracting from 10?"
- "How can you use 10 − 3 to help you find the value of 9 − 3?"

### Students might say . . .

A: I know 6 + 4 = 10, so 10 − 6 = 4.

B: 10 − 6 = 4, and 9 is 1 less than 10, so the difference is 1 less than 4, which is 3.

C: I know 10 − 3 is 7.

D: 10 − 3 = 7, so 9 − 3 is one less, which is 6.

Print Lesson | Pairs | 15 min

# Activity 1 Finding Footprint Lengths

**Purpose:** Students represent and solve two related Compare story problems involving length to understand the structure of Bigger Unknown and Smaller Unknown problems.

**Presentation Screens X–X**


**Materials**

- Activity 1 PDF (for display) (Lesson Resources)
- connecting cubes (30 per pair) (optional) (Manipulative Kit)

## Launch

Launch Storyboard Art FPO

X–X **Say,** "After finding muddy shoe prints in the yard and trails of footprints at the bird sanctuary, Sean and Trevor could not stop thinking about footprints! They checked out a library book that showed all kinds of furry, feathery, flat, and fluffy feet along with the footprints they leave behind. The boys each chose a footprint from the book to measure with cubes and then compared the measurements. Work with your partner to find the lengths of footprints Sean and Trevor measured."

**Read aloud** the directions and Problems 1–3.

**Provide** access to connecting cubes.

[A] **Accessibility: Conceptual processing** Maintain a visible display to record vocabulary relating to comparing lengths, such as *fewer than*, *less than*, *longer*, and *more than*. Invite students to suggest details, words or pictures, that will help them remember the meaning of the words or phrases, being careful not to assign an operation to a phrase (i.e. NOT "more than" means "add")

## Monitor

After/While students have completed/complete **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What part of the story could you represent first to help you solve?"

## Connect

Connect Storyboard Art FPO

X–X **Note:** The *Connect* is structured using the *MLR7: Compare and Connect* routine.

**Invite students to share** responses to Problem 3. Select and sequence their responses in the order shown in the *Differentiation* table.

**Say,** "You have solved story problems this year in which you needed to find the difference between two amounts being compared. These problems are different because the unknown length is one of the lengths being compared."

**Display** page 1 of the Activity 1 PDF.

**Use the Think-Pair-Share routine**. Ask:

- "What is unknown in this problem? Is it the longer length or the shorter length? How do you know?"
- "Where do you see the unknown footprint length in this representation?"

**Display** page 2 of the Activity 1 PDF, and repeat the *Think-Pair-Share* routine questions.

**Ask,** "What is the same about the representations for these problems? Why is it the same?"

**Key Takeaway:** Say, "In story problems in which two lengths are being compared, sometimes the difference between the lengths is known and one of the lengths you are comparing is unknown. It can be the longer length or the shorter length."

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Describe a similarity in context. | Both problems compare the length of a kangaroo's footprint and the length of a lion's footprint. | Ask, "What information do the problems give about the lengths of the footprints?" |
| Describe a similarity or difference in both context and the unknown amounts. | Both problems compare the same footprints. Problem 1 asks you to find the length of the kangaroo's footprint, and Problem 2 asks you to find the length of the lion's footprint. | Ask, "What other lengths are known or unknown in these problems?" |
| Describe similarities and differences in context, unknown amounts, and the problem structure. | Both problems are comparing the same amounts, but different footprint lengths are unknown. Both problems also tell how much longer or shorter one footprint is than the other. | Ask, "How are these problems different from other problems you have solved in which two amounts are compared?" |

Print Lesson | Pairs | 15 min

# Activity 2 Comparing More Footprints

**Purpose:** Students represent and solve Compare story problems with unknowns in all positions to consider different representations that can help make sense of the relationships between the amounts.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Say,** "You will solve more problems about footprint lengths that Sean and Trevor measured and compared. Before you solve each problem, talk with your partner about whether the unknown length in each problem is one of the footprint lengths or the difference between the footprint lengths."

**Read aloud** the directions and Problems 1–3.

**Provide** access to connecting cubes.

[A] **Accessibility:Conceptual processing** Guide processing by providing questions students can ask themselves, such as, "What are the lengths being compared? What length is unknown? How can I represent this story?"

### Materials

- connecting cubes (30 per pair) (optional) **(Manipulative Kit)**

**Short on time?** Consider having pairs solve only Problems 1 and 2 and omitting Problem 3 because it is a familiar problem type.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What are the amounts that you know in this problem and what do they represent?"

## Connect

Connect Storyboard Art FPO

X–X **Invite students to share** strategies for Problem 1. Have a student share who added 11 to 5 and another share who added 5 to 11. As students share, record an equation to represent each strategy.

**Use the Think-Pair-Share routine.** Ask:

- "What is unknown in this problem? Is this the longer or shorter footprint?"
- "Does it make sense to add or subtract the difference between the lengths to find the length of the unknown footprint? Why?"

**Invite students to share** strategies for Problem 2. Select and sequence their responses using the last two rows of the *Differentiation* table. Continue to record equations. Repeat the *Think-Pair-Share* routine questions.

**Ask,** "What do you notice about the equations that represent Problem 1 and the equations that represent Problem 2?"

**Key Takeaway:** Say, "In story problems in which one of the lengths being compared is unknown, thinking about whether the unknown length is shorter or longer can help you represent and solve the problem. You can use addition to find the longer length, and you can use either addition or subtraction to find the shorter length."

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the sum of the known length and the difference in lengths. | h<br>a 1 2 3 4 5 6<br>answer: 20 connecting cubes<br>equation: 14 + 6 = 20 | Ask, "How does your drawing represent the story problem?" |
| Use addition. | h<br>a<br>answer: 8 connecting cubes<br>equation: 8 + 6 = 14 | ****Extend Thinking****<br>Ask, "You used addition (or subtraction) to find the unknown footprint length. What is another way you can find the unknown length?" |
| Use subtraction. | h<br>a<br>answer: 8 connecting cubes<br>equation: 14 - 6 = 8 | |

Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** The unknown amount in a *Compare* story problem can be the bigger amount, the smaller amount, or the difference between the amounts. *Compare* story problems can be represented and solved in different ways to find the unknown value.

**Presentation Screens X–X**


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

Sean's footprint is 10 connecting cubes long.
A black bear's footprint is 4 cubes shorter than Sean's footprint.
What is the length of a black bear's footprint?

S

X–X **Say,** "Sean measured his own footprint, and then Trevor compared it to a black bear's footprint."

**Read aloud** the problem.

**Use the Think-Pair-Share routine.** Ask, "Sean is not sure if he should add or subtract to find the length of the black bear's footprint. What would you say to help Sean?"

**Say,** "The unknown amount in a story problem where two amounts are being compared can be the bigger amount, the smaller amount, or the difference between the amounts. Thinking about which amount is unknown in a problem can help you make a plan to solve it."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Represent and solve *Compare* story problems with unknowns in all positions.
2. **Language Goal:** Compare the structure of a *Compare, Bigger Unknown* and *Smaller Unknown* story problem. **(Reading, Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 2 | NY-1.OA.1 |
| **Spiral Review** | | | |
| Fluency | 3–6 | 1 | NY-1.OA.6b |
| | 7, 8 | 1 | NY-1.OA.6a |
| | 9 | 2 | NY-1.OA.2 |

# Center Choice Time

Presentation Screen X


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Estimate and Measure


**Stage 3 – Choose Your Unit**
**Independent** | **15 min** | NY-1.MD.2

Students estimate the length of objects in different length units and then measure and record each length.

**Materials**

- connecting cubes (25–30 per student), tens rods (12 per pair), unit cubes (100 per student) **(Manipulative Kit)**
- objects to measure (5–6 per student), paper clips (25–30 per student) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

## Last Number Wins


**Stage 2 – Numbers to 99 by 10**
**Pairs** | **15 min** | NY-1.NBT.5

Students take turns writing numbers in a counting sequence to practice counting by 10 and writing two-digit numbers.

**Materials**

- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 4, Sub-unit 2.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Last Number Wins

Placeholder for Center Icon

**Stage 3 – Numbers to 120 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns writing numbers in a counting sequence to practice counting by 1 and writing numbers up to 120.

### Materials

- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

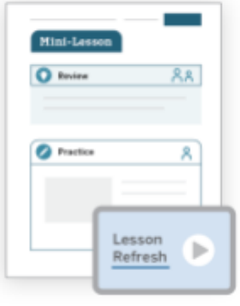
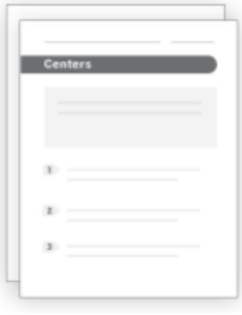
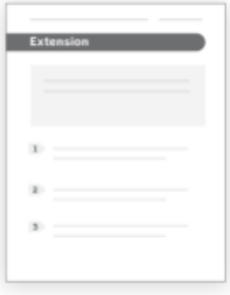
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

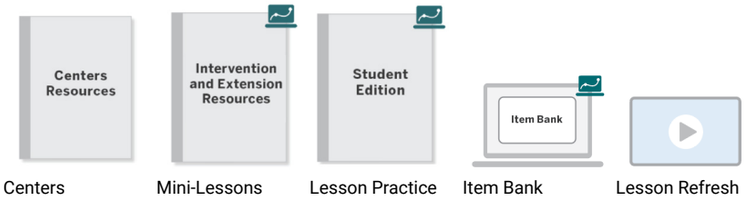
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 12**

# Sharing Is Fun

## Solving *Take From* Story Problems With Unknowns in All Positions

Let's see how Sean and Trevor share.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Represent and solve *Take From* story problems with unknowns in all positions.
2. **Language Goal:** Describe the structure of *Take From* story problems with unknowns in all positions. **(Listening and Speaking)**
3. **Language Goal:** Justify whether a representation shows the known and unknown amounts in a story problem. **(Listening and Speaking)**

Students interpret and discuss three *Take From* story problems including a new problem type, *Take From, Start Unknown*, each with an unknown in a different position. Students discuss the problems without solving them to attend to the structure of the problems and consider how they are similar to problems they have solved in the past. Students notice that all three story problems describe an amount that is taken away from another amount and use a given representation to reason about the relationships between the amounts. Next, students solve three *Take From* story problems with unknowns in all positions, and notice that although *Take From, Start Unknown* story problems describe subtraction, they can be solved by finding the sum of the known amounts. **(MP2, MP7)**

### Prior Learning

In Unit 2 students solved *Take From, Result Unknown* story problems. In Unit 3 students solved *Take From, Change Unknown* story problems.

### Future Learning

In Lesson 13, students will identify more than one equation that can be used to represent a story problem.

## Rigor and Balance

- Students develop their **conceptual understanding** of representing and solving *Take From* story problems with unknowns in all positions.
- Students **apply** their understanding of addition and subtraction within 20 to solve real-world problems.

## Vocabulary

**Review Vocabulary**

- *difference*
- *sum*

## Standards

**Addressing**

**NY1.OA.1**

Use addition and subtraction within 20 to solve one step word problems involving situations of adding to, taking from, putting together, taking apart, and/or comparing, with unknowns in all positions. Note: Problems should be represented using objects, drawings, and equations with a symbol for the unknown number. Problems should be solved using objects or drawings, and equations.

*Also Addressing*: NY-1.OA.6a

**Mathematical Practices:** MP2, MP3, MP6, MP7

**Math Identity/Community statement.**
What is something you can try when you do not understand a math problem?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.OA.1, NY-1.OA.6a

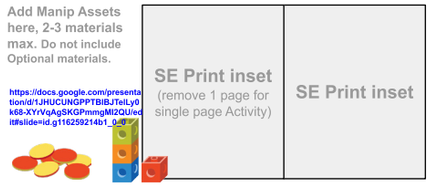
## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Which One Doesn't Belong** routine to compare addition and subtraction equations with unknowns in all positions. They should be encouraged to use precise language as they give their reasons for the equations they chose. **(MP3, MP6)**


Screens X–X

## Activity 1 Small Group | 15 min

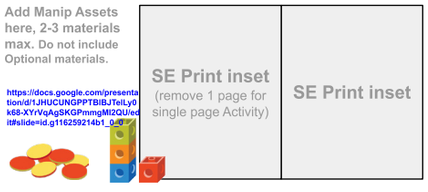
Students interpret and discuss three *Take From* story problems without solving to make sense of the structure of a new *Take From* story problem in which the starting amount is unknown.




Screens X–X

## Activity 2 Pairs | 15 min

Students represent *Take From* story problems with unknowns in all positions. They notice that although *Take From, Start Unknown* story problems describe one amount that is taken from another amount, addition can also be used to solve.




Screens X–X

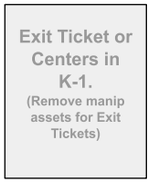
## Synthesis Whole Class | 5 min

Students review and reflect on the different types of *Take From* story problems and how both addition and subtraction can be used to find the unknown amounts.


Screens X–X

## Center Pairs | 15 min

Students are introduced to the Center, *Measure and Compare, Stage 1*, in which they measure two objects with connecting cubes and find the difference between the lengths.




## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, Activity 2 PDF
- **Manipulative Kit:** connecting cubes (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up Routine Title Goes Here

**Purpose:** Students analyze and compare addition and subtraction equations with underlines for the unknown values to prepare for analyzing story problems with unknowns in all positions.

Presentation Screen X


## Which One Doesn't Belong?

A. _ - 7 = 7

B. 14 - _ = 7

C. 7 + 7 = _

D. 14 - 8 = _

### Launch

X–X **Display** the four equations.

**Use the Which One Doesn't Belong? routine.**

**Say,** "Choose one that doesn't belong. Be ready to share your reasoning."

### Connect

X–X **Record** students' responses as they share.

**Ask,** "How could you know that the unknown amount in Equation D is not 7 without solving?"

**Students might say . . .**

A: It is the only equation with an unknown starting amount.

B: It is the only equation in which 7 is the unknown value.

C: It is the only addition equation.

D: It is the only equation that has an 8 as one of the values.

Print Lesson | Small Group | 15 min

# Activity 1 Sean's Blocks

**Purpose:** Students interpret and discuss *Take From* story problems with unknowns in all positions to begin to understand the structure of *Take From, Start Unknown* story problems.

**Presentation Screens X–X**


## Materials

- Activity 1 PDF (for display) **(Lesson Resources)**
- connecting cubes (optional) **(Manipulative Kit)**

**Short on time?** Consider omitting Story Problem C on page 3 of the Activity PDF and having students discuss only Story Problems A and B.

## Launch

Launch Storyboard Art FPO

X–X **Say,** "Although Sean and Trevor loved competing with one another, they noticed that when one brother had more of something, it was not as fun to play together. For example, Sean noticed that having more blocks than his brother meant he could build the tallest tower, but it also meant that Trevor did not have enough blocks to make a cool tower. Sean and Trevor think that competing is fun, but sometimes sharing is even more fun."

**Arrange** students in groups of four or five.

**Provide** access to connecting cubes.

[A] **Accessibility: Memory and attention** Provide students with printouts of the Activity 1 PDF to annotate or highlight as they work in groups.

**Display** Story Problem A from the Activity 1 PDF and read aloud the story problem.

**Read aloud** Problems 1–3 from the Student Edition. Have students work for 3 minutes. Repeat with Story Problems B and C from the Activity 1 PDF.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 3**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you notice about the story problem?"
- Ask, "How could you use the sentence frames to describe what you know about the amounts in this story problem?"

**[L] MLR8: Discussion Supports- Active Listening**

- Encourage students to discuss the story problems by restating another student's ideas in their own words, before adding their own ideas to the discussion.
- **[EL] English/Multilingual Learners**: Allow partners to discuss the story problem in their primary language first before restating and discussing in English.

## Connect

Connect Storyboard Art FPO

X–X **Display** Story Problem A from the Activity 1 PDF.

**Invite students to share** their responses for Problem 3. Repeat with Story Problems B and C from the Activity 1 PDF.

**Use the Think-Pair-Share routine**. Ask, "Why do you think the representations are the same even though the story problems are not the same?"

**Key Takeaway:** Say, "In story problems that describe an amount that is taken away from another amount, the unknown amount can be the starting amount, the amount that is taken away, or the difference. Representations can help you make sense of the relationship between the known and unknown amounts."

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Indicate they do not have enough information. | I am not sure because I do not know the unknown amount. | Ask, "What amounts do you see in the representation?" |
| **Almost there** Indicate that the representation only shows the known amounts. | No, it only shows the two amounts from the story problem. | Ask, "How could this representation be used to find the unknown amount?" |
| Indicate that the representation shows the known and unknown amounts. | Yes, the gray squares and the white squares are the known amounts and all the squares together show the amount of blocks Sean started with. | Ask, "How might a representation like this be helpful for finding the unknown amounts in story problems?" |

Print Lesson | Pairs | 15 min

# Activity 2 Building Forts

**Purpose:** Students represent and solve Take From story problems with unknowns in all positions to notice how both addition and subtraction can be used to find the unknown amounts.

**Presentation Screens X–X**


**Materials**
- Activity 2 PDF (for display) **(Lesson Resources)**
- connecting cubes (optional) **(Manipulative Kit)**

## Launch

Launch Storyboard Art FPO

X–X **Say,** "After Trevor and Sean made their towers, they decided they wanted to build two forts in their backyard. They each gathered blankets, branches and rope and then shared those supplies with one another to make sure they each had enough."

**Read aloud** the directions and Problems 1–3.

**Provide** access to connecting cubes.

[A] **Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by having students first complete Problems 1 and 2 and then Problem 3, as time allows.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 1**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you know about the amounts in this story problem?"
- Ask, "How could you represent the amounts to help you understand the relationship between the known and unknown amounts?"

## Connect

Connect Storyboard Art FPO

X–X **Display** and read aloud Problem 1.

**Ask,** "Is the unknown amount the starting amount, the amount that was taken away, or the amount that was left?"

**Display** the Activity 2 PDF.

**Use the Think-Pair-Share routine.** Ask:

- "Which equation can be used to find the unknown starting amount? How do you know?"
- "How do you know if addition can be used to find the unknown starting amount?"

**Say,** "Even though this story problem describes an amount being taken away, the subtraction equation cannot be used to find the unknown starting amount."

**Use the Think-Pair-Share routine.** Ask, "What is the unknown starting amount and how do you know?"

**Record** the equations that represent students' thinking such as 12 + 3 = 15 and 3 + 12 = 15.

**Key Takeaway:** Say, "In story problems that describe an amount that is taken away, you can add the amount that is taken away and the amount that is left to find the starting amount."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the difference between the known amounts. | 12 - 3 = 8 | Ask, "How could you represent the amounts in the story problem to show how you found the unknown amount?" |
| Find the unknown amount using guess and check. | _ - 3 = 12<br>13 - 3 = 10<br>14 - 3 = 11<br>15 - 3 = 12 | Ask, "You used subtraction to find the unknown amount. How else could you find the unknown amount?" |
| Find the unknown amount by adding the known amounts. | _- 3 = 12<br>3 ◯◯◯◯◯◯<br>◯◯◯◯◯<br>3 + 12 = 15 | **Extend Thinking**<br>Ask, "How did you know that addition could be used to find the unknown amount?" |
| | _- 3 = 12<br>12+ 3 =15 | |

Print Lesson | Whole Class | 10 min

# Synthesis

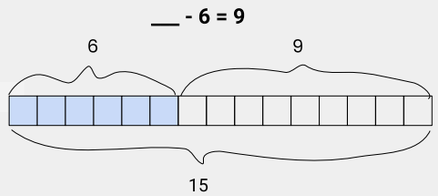
**Lesson Takeaway:** The unknown amount in a *Take From* story problem can be the starting amount, the amount that is taken away, or the difference. *Take From, Start Unknown* story problems can be solved by finding the sum of the known amounts.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)




X–X **Ask,** "What are the known values in this equation?"

**Say,** "This equation represents a subtraction problem in which the starting amount is unknown, but the amount that is taken away and the difference are known."

**Use the Think-Pair-Share routine**. Ask:

- "What equation could you use to find the unknown starting amount?"

**Record** the equation 6 + 9 = 15.

**Say,** "The unknown amount in a story problem that describes an amount that is taken away can be the starting amount, the amount that is taken away, or the difference. You can add the amount that was taken away and the amount that is left to find the starting amount."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Represent and solve *Take From* story problems with unknowns in all positions.
2. **Language Goal:** Describe the structure of *Take From* story problems with unknowns in all positions. **(Listening and Speaking)**
3. **Language Goal:** Justify whether a representation shows the known and unknown amounts in a story problem. **(Listening and Speaking)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 2 | NY-1.OA.1 |
| **Spiral Review** | | | |
| Fluency | 3–14 | 1 | NY-1.OA.6b |
| | 15–18 | 1 | NY-1.OA.6a |

Print Lesson

Pairs | 15 min

# Introducing the Center
## Measure and Compare, Stage 1

**Purpose:** Students find the difference between the lengths of 2 objects to practice measuring lengths and subtracting within 20.

**Presentation Screens X–X**


### Materials
- connecting cubes (Manipulative Kit)
- objects to measure (Classroom materials)
- Directions, Recording Sheet (Centers Resources)

## Launch

Launch Storyboard Art FPO

X–X **Demonstrate** how to play *Measure and Compare* with a student acting as your partner.

- **Display** a crayon and a whiteboard marker or similar classroom objects.
- **Say,** "I am going to measure the crayon with connecting cubes."
- **Demonstrate** measuring the crayon with connecting cubes.
- **Say,** "Now my partner will measure the whiteboard marker with connecting cubes." Have the student who is acting as your partner demonstrate measuring the whiteboard marker with connecting cubes.
- **Say,** "Next, my partner and I will find the difference between the two length measurements."
- **Use the Think-Pair-Share routine**. Ask, "How can we find the difference?"
- **Record** an equation that represents the difference between the lengths.
- **Say,** "You will find two new objects to measure and compare the lengths of in each round until your recording sheet is full."

**Note:** To ensure students are not subtracting beyond 20, have students measure the lengths of objects that are not longer than 20 connecting cubes.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** how students find the differences between the lengths.

## Connect

Connect Storyboard Art FPO

X–X **Display** a tower of 5 connecting cubes and a tower of 7 connecting cubes positioned horizontally.

**Say,** "These towers show the length measurements of two objects."

**Have students share** how they could find the difference between the two lengths in the order shown in the last two rows of the *Differentiation* table.

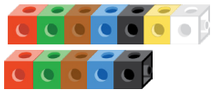
**Key Takeaway:** Say, "There is more than one way to find the difference between the lengths of two objects."

**Centers Resources**

Center Direction Sheet

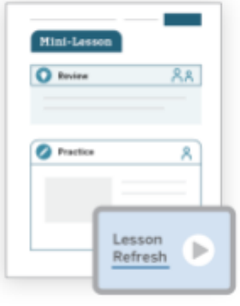
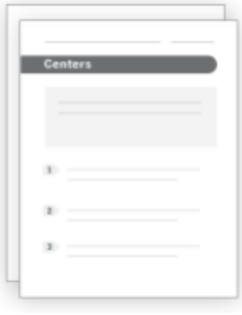
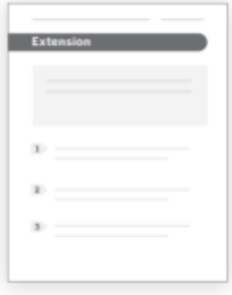
**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the sum of the lengths. |  7 + 5 = 12 | Ask, "You found the total length of both objects. How could you find the difference between the lengths?" |
| Compare the lengths using subtraction. |  7 - 5 = 2 | Ask, "How could you compare the lengths using addition? |
| Compare the lengths using addition. |  5 + 2 = 7 | ****Extend Thinking****<br>Ask, "How did you know that you could use addition to find the difference?" |

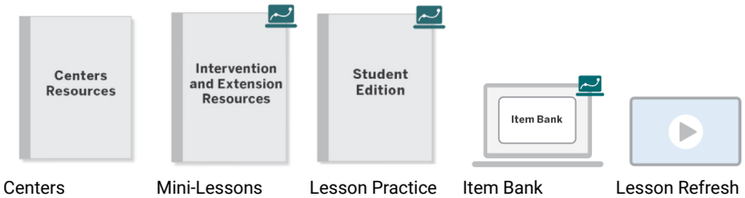
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 13**

# Addition or Subtraction?

## Identifying 2 Equations That Represent the Same Story Problem

Let's think about different ways story problems can be represented.

**Student Edition pages, Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Identify two equations that can be used to find the unknown amount in a story problem.
2. **Language Goal:** Justify whether a story problem can be represented with addition, subtraction, or both. **(Listening and Speaking, Writing)**

Students read and discuss a variety of story problems with unknowns in all positions and decide whether they think addition, subtraction, or both can be used to represent the story problem. To do this, students reason about the relationships between the amounts using familiar representations that show the known and unknown amounts. Because students in Grade 1 are not expected to distinguish between solution and situation equations, no distinction is made. Next, students examine new story problems and identify two equations that represent different ways to find the unknown amounts. To identify the equations, students think about the relationship between the amounts and apply their understanding of the *Add in Any Order Property* and the relationship between addition and subtraction. **(MP2)**

### Prior Learning

In Lesson 12, students represented and solved *Take From* story problems with unknowns in all positions, noticing that although the story problems describe an amount that is taken from another amount, addition can be used to solve.

### Future Learning

In Lesson 14, students represent and solve a variety of story problems and find the unknown values in equations with unknowns in all positions.

## Rigor and Balance

- Students continue to develop their **conceptual understanding** of the relationship between addition and subtraction and the properties of operations.
- Students **apply** their understanding of the relationship between addition and subtraction and the properties of operations to identify more than one equation that represents a story problem.

## Vocabulary

**Review Vocabulary**

- *add*
- *equation*
- *subtract*

## Standards

**Addressing**

**NY-1.OA.4**

Understand subtraction as an unknown-addend problem within 20.

*Also Addressing*: NY-1.OA.7

**Mathematical Practices:** MP2

**Building On**

**NY-1.OA.1**

**NY-1.OA.3**

**Math Identity/Community statement.**
When have you tried something in more than one way as a mathematician?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.OA.4, NY-1.OA.7

## Warm-Up **Fluency** Whole Class | 10 min

Students use the **True or False?** routine, in which they determine whether a series of addition and subtraction equations within 20 are true or false and justify their responses. (MP3, MP7)

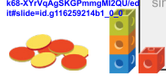
SE Print inset

Screens X–X

## Activity 1 Pairs | 15 min

Students read and discuss two story problems with a partner and decide whether they think the story problems can be represented with addition, subtraction, or both. Then students interpret a third story problem and answer the same question independently. They notice that some story problems can be represented with both operations.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.



SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Activity 2 Pairs | 15 min

Students read and interpret three story problems and select two equations that can be used to find the unknown amount. They discuss how multiple equations can represent the same story problem if they represent the same relationship between the amounts.

Add Manip Assets here, 2-3 materials max. Do not include Optional materials.

SE Print inset (remove 1 page for single page Activity)

SE Print inset

Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how equations can be used to represent what happens in a story problem and to represent different ways the problem can be solved.

SE Print inset

Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice estimating and measuring length, and counting and writing numbers to 120.

- Estimate and Measure, Stage 3
- Last Number Wins, Stage 3
- Measure and Compare, Stage 1

Exit Ticket or Centers in K-1.
(Remove manip assets for Exit Tickets)

## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, Activity 2 PDF
- **Manipulative Kit:** connecting cubes

Print Lesson | Whole Class | 10 min

# Warm-Up True or False?

**Fluency**

**Purpose:** Students analyze equations involving addition and subtraction within 20, without evaluating all expressions, to deepen their understanding of the relationship between addition and subtraction.

Presentation Screen X


| | |
|---|---|
| A: 5 + 8 = 13 — True | B: 13 - 8 = 5 — True |
| C: 14 = 9 + 5 — True | D: 5 = 9 - 14 — False |

**Why these problems?** These expressions lend themselves to using related addition equations to determine if subtraction equations are true.

## Launch

**Use the True or False? routine.**

X–X **Display** one equation at a time.

**Say,** "Give me a signal when you know whether the statement is true and can explain how you know."

## Connect

X–X **Record** two or three students' responses, asking for their reasoning and allowing others to agree or disagree. Keep each equation displayed as you progress to the next.

**Repeat** with each equation.

**Ask,** "How could you change Equation D to make it true?"

### Students might say . . .

A: True. I can think of 5 + 8 as 10 + 3. I know 10 + 3 has the same value as 13.

B: True. Because 5 + 8 is 13, then 13 – 8 is 5.

C: True. I can think of 9 + 5 as 10 + 4. I know 10 + 4 is 14.

D: False. I know 14 is 9 + 5, so you can subtract 5 or 9 from 14 to get the other part. 9 – 14 is not the same value as 5.

Print Lesson | Pairs | 15 min

# Activity 1 Trevor's Story Problems

**Purpose:** Students describe story problems as using addition or subtraction to build conceptual understanding of the idea that some story problems can be represented with both addition and subtraction.

**Presentation Screens X–X**


## Launch

X–X **Say,** "Like many brothers, sometimes Sean and Trevor disagree. One afternoon, Trevor told Sean he was working on an addition problem. Sean read the story problem and said it seemed like a subtraction problem. Let's read the story problems that Sean and Trevor were working on."

**Display** Story Problem A from the Activity 1 PDF and read aloud the story problem

[A] **Accessibility: Visual-spatial processing** Provide students with printouts of the Activity 1 PDF to annotate, highlight, circle, or count and label the diagram to support discussion.

**Read aloud** Problem 1 from the Student Edition. Have partners discuss for 1 minute. Repeat with Story Problem B from the Activity 1 PDF.

**Display** Story Problem C from the Activity 1 PDF and read aloud the story problem.

**Read aloud** Problem 2 from the Student Edition. Have students work independently for 3 minutes.

### Materials

- Activity 1 PDF (for display) **(Lesson Resources)**
- connecting cubes **(Manipulative Kit)**

**Short on time?** Consider having students share responses to Problem 2 orally.

## Monitor

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "Can this story problem be represented with addition? Why or why not?"
- Ask, "Can this story problem be represented with subtraction? Why or why not?"

## Connect

X–X **Note:** The *Connect* is structured using *MLR1: Stronger and Clearer Each Time*.

**Display** Story Problem C from the Activity 1 PDF.

**Invite students to share** their responses to Problem 2 with 1–2 other students. Encourage listeners to ask clarifying questions using stems, such as:

- "What do you mean by…?"
- "Can you tell me more about…?"

Have students revise their responses based on the feedback they receive.

**Key Takeaway:** Say, "The same story problem can be described as an addition and subtraction problem when you can solve it by adding or subtracting."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Indicate that the story problem can be represented with addition or subtraction. | This is story problem is addition because you can add or count on from 4 to find how many more purple flowers. | Ask, "How can you use the drawing to prove that this problem can only be represented this way?" |
| | This story problem is subtraction because you can subtract 4 from 15 to find how many more purple flowers. | |
| Indicate that the story problem can be represented with addition and subtraction. | This story problem is both addition and subtraction because you can add to 4 or subtract from 15 to find how many more purple flowers. | Ask, "Would you choose addition or subtraction to solve this problem? Explain your thinking." |

Print Lesson | Pairs | 15 min

# Activity 2 Which Equations?

**Purpose:** Students select equations that can be used to solve story problems to deepen their understanding of the relationship between addition and subtraction and the properties of operations.

**Presentation Screens X–X**


**Materials**

- Activity 2 PDF (for display) **(Lesson Resources)**
- connecting cubes **(Manipulative Kit)**

## Launch

Launch Storyboard Art FPO

**X–X Say,** "After Trevor finished solving the story problem, he and Sean decided to go to the park."

**Read aloud** Problems 1–3.

## Monitor

Monitor Storyboard Art FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 1**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**X–X If students need help getting started . . .**

- Ask, "What do you know about the known and unknown amounts?"
- Ask, "How could you use drawings or objects to represent the relationship between the known and unknown amounts?

## Connect

Connect Storyboard Art FPO

**X–X Display** the Activity 2 PDF and read aloud the story problem.

**Ask,** "How could this representation help you understand the relationship between the amounts in the story problem?"

**Say,** "This representation shows that 9 plus another amount makes a total of 15."

**[EL] Multilingual/English Learners:** On the display, point to the corresponding places in the diagram and in the equation when saying "9", "another amount" and "total of 15."

**Use the Think-Pair-Share routine.** Ask, "Which 2 equations represent the same relationship between the known and unknown amounts?"

**Ask,** "Which equation shows a different relationship between the amounts?"

**Note:** Circle or annotate to indicate the two correct equations as students share their responses.

**Use the Think-Pair-Share routine.** Ask:

- "Why does 9 - 15 = _ not work to find the unknown amount in the story problem?
- "What subtraction equation could be used to find the unknown amount in the story problem?"

**Record** the equation 15 - 9 = _.

**Key Takeaway:** Say, "Equations can be used to find the unknown amount in a story problem if they represent a true relationship between the known and unknown amounts."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Circle both addition equations. | 8 + 11 = _<br>8 + _ = 11<br>11 - 8 = _ | Ask, "How could you prove that both equations can be used to find the same unknown amount?" |
| **Almost there** Circle the addition equation with an unknown sum and the subtraction equation. | 8 + 11 = _<br>8 + _ = 11<br>11 - 8 = _ | |
| Circle the addition equation with an unknown addend and the subtraction equation. | 8 + 11 = _<br>8 + _ = 11<br>11 - 8 = _ | ****Extend Thinking****<br>Ask, "What other equation could be used to find the unknown amount?" |

Print Lesson | Whole Class | 5 min

# Synthesis

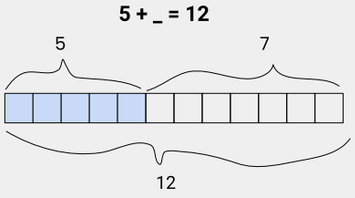
**Lesson Takeaway:** More than one equation can be used to represent the relationship between the amounts in a story problem They can also be used to represent different ways to solve the problem.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)




X–X **Say,** "The equation 5 + _ = 12 and drawing represent a story problem. There are 5 branches in a pile, some more branches are put into the pile, now there are 12 branches in the pile."

**Use the Think-Pair-Share routine.** Ask, "What other equation could be used to find the unknown amount?"

**Record** students' responses such as 12 - _ = 5

**Say,** "More than one equation can be used to represent the same story problem because more than one equation can represent a true relationship between the known and unknown amounts."

**Record** the equations 12 - 5 = $\square$ and 5 + $\square$ = 12.

**Say,** "Equations can represent what happens in a story problem. They can also represent different ways that the problem can be solved."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Use an ordered pair to plot and locate points on the coordinate plane.
2. **Language Goal:** Explain the relationship between an ordered pair and the location of the point on the plane. **(Speaking and Listening, Writing)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 2 | NY-1.OA.4<br>NY-1.OA.7 |
| **Spiral Review** | | | |
| Fluency | 3–8 | 1 | NY-1.OA.6b |
| | 9, 10 | 1 | NY-1.OA.6a |
| | 11 | 2 | NY-1.OA.2 |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Estimate and Measure


**Stage 3 – Choose Your Unit**
**Independent** | **15 min** | NY-1.MD.2

Students estimate the length of objects in different length units and then measure and record each length.

**Materials**

- connecting cubes (25–30 per student), tens rods (12 per pair), unit cubes (100 per student) **(Manipulative Kit)**
- objects to measure (5–6 per student), paper clips (25–30 per student) **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

## Last Number Wins


**Stage 3 – Numbers to 120 by 1**
**Pairs** | **15 min** | NY-1.NBT.1

Students take turns writing numbers in a counting sequence to practice counting by 1 and writing numbers up to 120.

**Materials**

- dry erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

# Measure and Compare

Placeholder for Center Icon

**Stage 1 – Subtitle**
**Update grouping** | **15 min** |
NY-.MD.2, NY-1.OA.6a

Students find the difference between the lengths of 2 objects to practice measuring lengths and subtracting within 20.

### Materials

- connecting cubes **(Manipulative Kit)**
- objects to measure **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

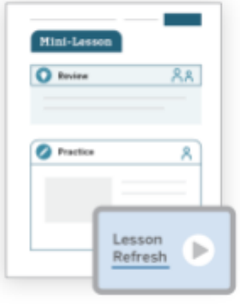
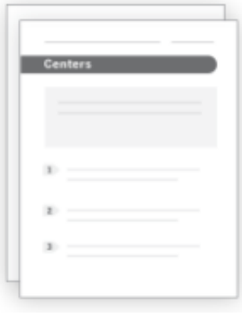
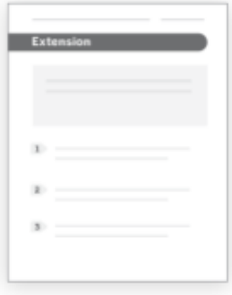
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

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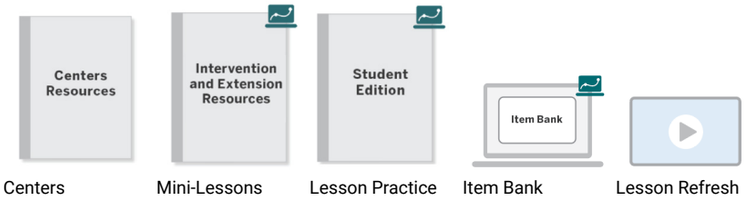
**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 14**

# All Types of Problems

## Finding Unknown Amounts in All Positions

Let's see how Trevor and Sean play games.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Represent and solve *Take From, Start Unknown*, *Add To, Change Unknown,* and *Compare, Bigger Unknown* story problems.
2. **Goal:** Find the unknown value in addition and subtraction equations with unknowns in all positions.
3. **Language Goal:** Explain which equation is helpful for understanding the relationship between the known and unknown amounts in a story problem. **(Speaking and Listening)**

Students solve familiar story problem types involving addition and subtraction within 20. They build on their understanding that story problems can be represented with more than one equation. They notice that representing a story problem with more than one equation before solving can help them identify more than one way to find the known amount. Students then find the unknown values in a variety of addition and subtraction equations with unknowns in all positions. This provides an opportunity for students to consider how writing a related equation might help them to find the unknown value in a given equation. **(MP2, MP4, MP7)**

### Future Learning

In Lesson 15, students will apply their understanding of addition and subtraction within 20 to ask and answer questions about three categories. In Grade 2, students will use addition and subtraction to solve one- and two-step story problems within 100.

## Rigor and Balance

- Students develop their **conceptual understanding** of making sense of the relationship between known and unknown amounts in story problems and equations.
- Students **apply** their understanding of addition and subtraction to solve real-world problems.

## Vocabulary

**Review Vocabulary**

- *difference*
- *equation*
- *sum*

## Standards

**Addressing**

**NY-1.OA.8**

Determine the unknown whole number in an addition or subtraction equation with the unknown in all positions.

*Also Addressing*: NY-1.OA.1, NY-1.OA.6a

**Mathematical Practices:** MP2, MP4, MP7, MP8

| | Building Toward |
|---|---|
| | **NY-2.OA.1** |

**Math Identity/Community statement.** Trevor and Sean like to do things together. Who do you like to do math with and why?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.OA.8, NY-1.OA.1, NY-1.OA.6a

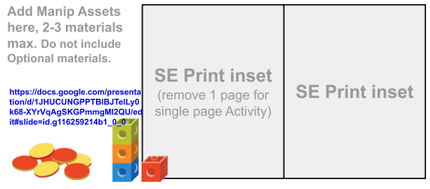
## Warm-Up **Fluency** Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use the repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions within 20. **(MP7, MP8)**


Screens X–X

## Activity 1 Pairs | 15 min

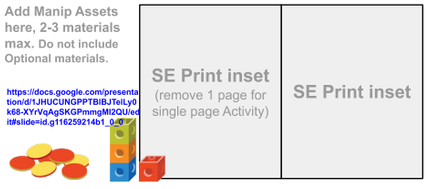
Students represent and solve *Take From, Start Unknown, Add To, Change Unknown*, and *Compare, Bigger Unknown* story problems and discuss how representing a story problem with more than one equation can be helpful for identifying different ways to solve the problem.




Screens X–X

## Activity 2 Pairs | 15 min

Students find the value that makes a variety of addition and subtraction equations true with unknowns in all positions. They discuss how writing a related equation can help them find the unknown value.




Screens X–X

## Synthesis Whole Class | 5 min

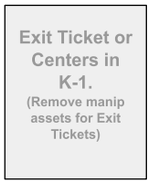
Students review and reflect on how representing the relationship between the amounts in story problems and equations in more than one way can be helpful for thinking of different ways to find the unknown amount.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice estimating and measuring length, and counting and writing numbers to 120.

- Math Stories, Stage 4
- Measure and Compare, Stage 1
- What's Behind My Back?, Stage 3




## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, Activity 2 PDF
- **Manipulative Kit:** connecting cubes (optional)

Print Lesson | Whole Class | 10 min

# Warm-Up Number Talk

**Fluency**

**Purpose:** Students add within 20 to make connections between adding doubles and adding near doubles.

Presentation Screen X


| A | B |
|---|---|
| 7 + 7<br>14 | 7 + 8<br>15 |
| **C** | **D** |
| 9 + 9<br>18 | 9 + 7<br>16 |

**Why these problems?** These expressions lend themselves to using known doubles facts to help add numbers that are near doubles.

## Launch

**Use the Number Talk routine.**

X–X **Display** one expression at a time.

**Say,** "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you determined it."

## Connect

X–X **Record** sums and two or three strategies as students share, honoring all strategies and keeping expressions and work displayed.

**Repeat** with each expression, spending the most time discussing Expression D.

**Ask:**

- "How could Expression A be used to find the value of Expression D?
- "How could Expression C be used to find the value of Expression D?"

**Students might say . . .**

A: I know 7 + 7 is 14.

B: Because 7 + 7 is 14, then I know 7 + 8 is one more, which is 15.

C: I know 9 + 9 is 18.

D: Because 9 + 9 is 18, then I know 9 + 7 is 2 less, which is 16.

Print Lesson | Pairs | 15 min

# Activity 1 Playing a Card Game

**Purpose:** Students represent and solve Take From, Start Unknown, Add To, Change Unknown, and Compare, Bigger Unknown story problems to consider different ways to represent the relationship between the known and unknown amounts.

**Presentation Screens X–X**


## Launch

**Materials**
- Activity 1 PDF (for display) **(Lesson Resources)**
- connecting cubes (optional) **(Manipulative Kit)**

X–X **Say,** "Sean and Trevor loved playing games together, and of course they loved keeping score. To play one of their favorite games, they get a deck of cards and place all the cards face down. Then, each player places one card face up. The player with the card that has the greatest value earns an amount of points equal to the number on the card. The boys loved playing round after round, and sometimes their mom played too."

**Read aloud** the directions and Problems 1–3.

**[EL] Multilingual/English Learners:** Students may be unfamiliar with the meaning of the word *round* as used here in Problems 2–3, and also in Lesson 15. Clarify that *round* can describe a shape, as well as one play of a game.

**[A] Accessibility: Executive functioning** Check for understanding by inviting students to rephrase directions in their own words.

## Monitor

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What do you know about the known and unknown amounts?"
- Ask, "How could you use drawings or objects to represent the relationship between the known and unknown amounts?"

## Connect

X–X **Display** Problem 1 and the Activity 1 PDF.

**Ask,** "How does the representation show the known and unknown amounts in the story problem?"

**Use the Think-Pair-Share routine**. Ask, "What subtraction equation represents the relationship between the known and unknown amounts?"

**Record** the equation _ - 5 = 12.

**Use the Think-Pair-Share routine**. Ask, "What addition equation represents the relationship between the known and unknown amounts? How do you know?"

**Record** the equations 5 + 12 = _ and 12 + 5 = _.

**Ask,** "Which equation or equations help you understand the relationship between the known and unknown amounts and why?"

**Key Takeaway:** Say, "Representing the relationship between the amounts in a story problem with more than one equation can help you to think of different ways to find the unknown amount."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the sum of the known amounts. | 8 + 16 = _<br>8 + 10 = 18<br>18 + 6 = 24 | Ask, "How could you represent the amounts with drawings or objects to show how you found the unknown amount?" |
| Add or use a known sum to find the unknown amount. | 8 + _ = 16<br>8, 9, 10, 11, 12, 13, 14, 15, 16<br>8 + 8 = 16 | **Extend Thinking**<br>Ask, "What other equations could be used to find the unknown amount?" |
| Subtract or use a known difference to find the unknown amount. | 16 - 8 = _<br>16 - 6 = 10<br>10 - 2 = 8 | |

Print Lesson | Pairs | 15 min

# Activity 2 Finding Unknown Values

**Purpose:** Students find the missing value in addition and subtraction equations with unknowns in all positions to notice that they can write a related equation to find the unknown value.

**Presentation**
**Screens X–X**


## Launch

Launch
Storyboard Art
FPO

**X–X Say,** "You have solved many story problems and noticed that there can be more than one way to find the unknown amounts."

**Use the Think-Pair-Share routine.** Ask, "Do you think there is always more than one way to find the unknown amount in an equation? How do you know?"

**Read aloud** the directions and Problems 1–6.

**[A] Accessibility: Memory and attention** Chunk this task into smaller, more manageable parts by having students first complete Problems 1-3, and then complete Problems 4-6, as time allows.

### Materials

- Activity 2 PDF (for display) **(Lesson Resources)**
- connecting cubes (optional) **(Manipulative Kit)**

**Short on time?** Consider omitting Problems 2 and 5.

## Monitor

Monitor
Storyboard Art
FPO

**NOTE:* *The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 3**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

**X–X If students need help getting started . . .**

- Ask, "What do you know about the unknown value in this equation?"
- Ask, "What can you build or draw to help you understand the relationship between the known and unknown values?"

## Connect

Connect
Storyboard Art
FPO

**X–X Display** Problem 1 and the Activity 2 PDF.

**Ask, "**How does the representation show the known and unknown values in the subtraction equation?"

**Use the Think-Pair-Share routine.** Ask, "What other equations could represent the relationship between the known and unknown amounts in the equation? How do you know?"

**Record** students' responses such as the equations 14 - 6 = _, 6 + _ = 14, and _ + 6 = 14.

**[L] MLR8: Discussion Supports - Pressing for Details**

As students respond, press for details in their reasoning. For example:

- If a student says, "I think 14 - 6 = _ represents the relationship between the amounts." ...
- Press for details by asking, "How do you know that 14 - _ = 6 and 14 - 6 = _ show the same relationship between the known and unknown amounts?"

**Use the Think-Pair-Share routine.** Ask, "These are all related equations. Related equations show the same relationship between values. How could writing a related equation be helpful when finding the unknown value in an equation?"

**Key Takeaway:** Say, "When finding the unknown value that makes an addition or subtraction equation true, you can write a related equation that shows the same relationship between the values. Writing more than one equation can help you think of more than one way to find the unknown value."

**Student Edition**

SE Print inset

SE Print inset

**Teacher Presentation Screens**

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Find the sum of the known values. | 12 + 3 = _<br>12 + 3 = 15 | Ask, "How could you prove that you found the value that makes the equation true?" |
| Find the unknown value by adding or counting on. | _ + 3 = 12<br>3, 4, 5, 6, 7, 8, 9, 10, 11, 12<br>9 + 3= 12 | Ask, "How else could you find the unknown value?" |
| Find the unknown value by subtracting.. | 12 - 3 =_<br>12 - 2 = 10<br>10 - 1 = 8<br>12 - 3 = 9 | **Extend Thinking**<br>Ask, "How did you know that you could subtract to find the unknown addend?" |

Print Lesson | Whole Class | 5 min

# Synthesis

**Lesson Takeaway:** Story problems and equations with unknown amounts can be represented with drawings or related equations to show more than one way to find the unknown amount.

**Presentation Screens X–X**

Double click to add screen here

X–X

Summary screen here
(inset 2nd Summary screen, Animation)

_ + 12 = 20

X–X **Ask,** "Where do you see the known and unknown amounts from the equation in the representation?"

**Record** the equation 12 + 20 = _.

**Ask,** "Can the equation 12 + 20 = _ be used to find the unknown amount? Why or why not?"

**Say,** "When finding the unknown amount in an equation or story problem, it can be helpful to represent the relationship between the amounts in more than one way. It is important to make sure that the equation you use to find the unknown amount represents a true relationship between the amounts."

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Represent and solve *Take From, Start Unknown*, *Add To, Change Unknown,* and *Compare, Bigger Unknown* story problems.
2. **Goal:** Find the unknown value in addition and subtraction equations with unknowns in all positions.
3. **Language Goal:** Explain which equation is helpful for understanding the relationship between the known and unknown amounts in a story problem. **(Speaking and Listening)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1 | 2 | NY-1.OA.1 |
| | 2 | 2 | NY-1.OA.1 |
| **Spiral Review** | | | |
| Fluency | 3–10 | 1 | NY-1.OA.6b |
| | 11–16 | 1 | NY-1.OA.6a |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Math Stories


**Stage 4 – Add and Subtract**
**Pairs** | **15 min**| NY-1.OA.1

Students tell, represent, and solve addition and subtraction story problems about pictures.

**Materials**

- Directions, Math Stories Pictures (Stages 1 and 4), Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 3.**

## Measure and Compare


**Stage 1 – Measure Using Cubes**
**Pairs** | **15 min** | NY-1.MD.2, NY-1.OA.6a

Students find the difference between the lengths of 2 objects to practice measuring lengths and subtracting within 20.

**Materials**

- connecting cubes **(Manipulative Kit)**
- objects to measure **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## What's Behind My Back?

Placeholder for Center Icon

**Stage 3 – 20 Cubes**
**Pairs** | **15 min** | NY-1.OA.4

Students hide a tower of 20 cubes, break off some cubes, and show their partner the remaining cubes. Students determine how many are missing and represent their thinking with an addition equation.

### Materials

- connecting cubes (20 per pair), double 10-frames **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

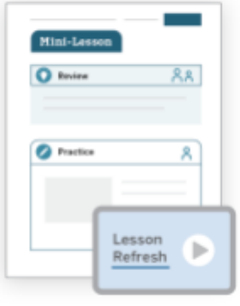
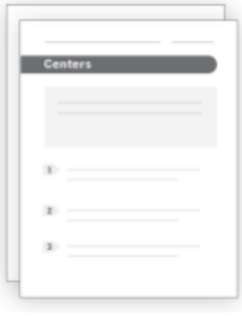
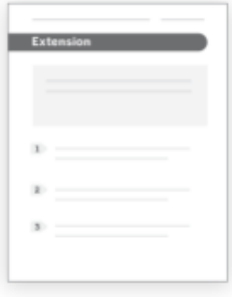
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

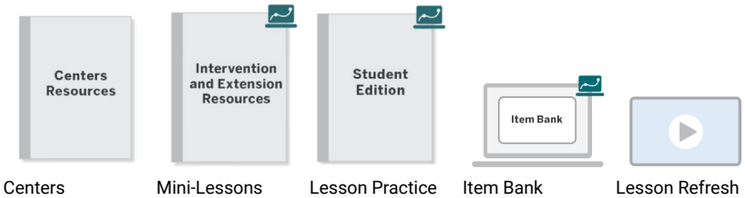
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 6 | **LESSON 15**

# Keeping Score

## Representing and Solving Story Problems About Data

Let's ask questions about the math games Sean and Trevor play.

**Student Edition pages** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Use addition and subtraction to interpret a data representation.
2. **Goal:** Represent and solve *Compare, Difference Unknown* and *Smaller Unknown* story problems.
3. **Language Goal:** Ask questions that can be answered with a data representation. **(Speaking and Listening, Writing)**

Students analyze three categories of data and collaboratively generate a list of questions that can be answered with the data representation, communicating their ideas clearly and precisely. Students select one question and use their understanding of addition and subtraction to find the answer. Students also deepen their understanding of *Compare* story problems as they reason about the amounts shown in an incomplete data representation to find the missing data point and compare two categories of data. **(MP2, MP6)**

### Prior Learning

In Lesson 14, students represented and solved a variety of story problems.

### Future Learning

In Grade 2, students will use addition and subtraction within 100 to solve story problems involving lengths.

## Rigor and Balance

- Students build **conceptual understanding** of representing and solving *Compare, Smaller Unknown* and *Difference Unknown* story problems.
- Students **apply** their understanding of data representations and addition and subtraction to solve real-world problems.

## Vocabulary

**Review Vocabulary**

- *fewer*
- *length*
- *more*
- *shorter*

## Standards

**Addressing**

**NY-1.MD.4**

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

*Also Addressing*: NY-1.OA.1, NY-1.OA.7

**Mathematical Practices:** MP2, MP3, MP6, MP7

| Building On | Building Toward |
|---|---|
| NY-1.OA.2 | NY-2.MD.5 |

**Math Identity/Community statement.**
What types of math games do you like to play and why?

Support students in building their ***mathematical [identity/community]*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standard(s): NY-1.MD.4, NY-1.OA.1, NY-1.OA.7

## Warm-Up **Fluency** Whole Class | 10 min

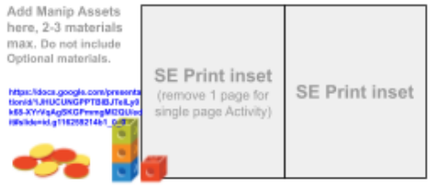
Students use the **True or False?** routine, in which they determine whether a series of addition equations within 20 are true or false and justify their responses. (MP3, MP7)


Screens X–X

## Activity 1 Pairs | 15 min

Students generate questions about three categories of data including questions about how many more, how many fewer, and how many in all three categories. Then, students apply their understanding of addition and subtraction to answer one question and show how they solved.

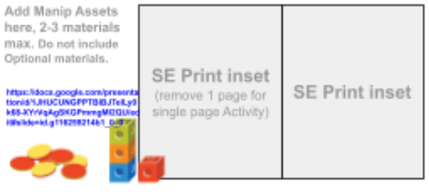
**Additional Prep:** Prepare: *Questions About Math Games* chart




Screens X–X

## Activity 2 Pairs | 15 min

Students interpret a data representation in which one of three categories of data is missing. Students use what they know about comparing amounts to find the missing amount and to find the difference between two categories.




Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on how they can use the same addition and subtraction strategies they use to solve story problems to interpret data.


Screens X–X

## Center Choice Time Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice estimating and measuring length, and counting and writing numbers to 120.

- Math Stories, Stage 4
- Measure and Compare, Stage 1
- What's Behind My Back?, Stage 3


## Prep Checklist

Invite students to use their Student Edition. Display the Presentation Screens to help facilitate the lesson. (replace with boilerplate text found here)

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF
- **Manipulative Kit:** connecting cubes (optional)
- **Classroom materials:** chart paper, markers, *Questions About Math Games* chart (teacher made)

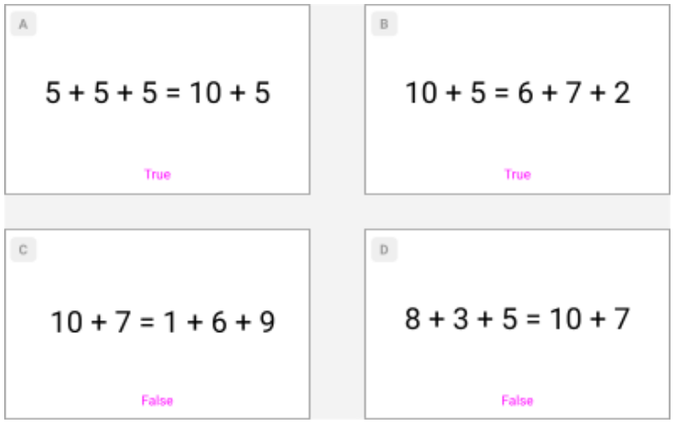
Print Lesson | Whole Class | 10 min

# Warm-Up True or False?

**Fluency**

**Purpose:** Students analyze equations involving addition, without evaluating all expressions, to develop fluency for finding sums within 20.

Presentation
Screen X


**Why these problems?** These expressions lend themselves to using addition strategies such as making 10.

## Launch

**Use the True or False? routine.**

X–X **Display** one equation at a time.

**Say,** "Give me a signal when you know whether the statement is true and can explain how you know."

## Connect

X–X **Record** two or three students' responses, asking for their reasoning and allowing others to agree or disagree. Keep each equation displayed as you progress to the next.

**Repeat** with each equation.

**Ask,** "How can thinking about how the addends can make 10 help you to know whether an equation is true or false?"

### Students might say . . .

A: True. If I add 5 + 5 then both expressions are 10 + 5.

B: True. 7 + 2 is 9. Then I can take 1 from 6 to make 10. Then both expressions would be 10 + 5.

C: False. If you add 1 + 9 to get 10, then one expression would be 10 + 6 and the other would be 10 + 7.

D: False. If you take 2 from the 3 to add to 8 to make 10, then you would have 10 + 6 on one side and 10 + 7 on the other.

Print Lesson | Pairs | 15 min

# Activity 1 Questions About Math Games

**Purpose:** Students ask and answer questions about three categories of data to apply their understanding of using addition and subtraction to interpret data.

**Presentation Screens X–X**


## Materials

- Activity 1 PDF (for display) **(Lesson Resources)**
- connecting cubes (optional) **(Manipulative Kit)**
- chart paper, markers, *Questions About Math Games* chart (teacher made) **(Classroom materials)**

**Short on time?** Consider having students share their question verbally rather than recording the question in the Student Edition.

## Launch

Launch Storyboard Art FPO

X–X **[L]** This activity is structured using the MLR5: *Co-craft Questions* routine.

**Say,** "Sean and Trevor love playing all types of games. One day they decided to play three of the math games that they had learned in school."

**Read aloud** Problem 1. Have students discuss in pairs for 2 minutes.

**Invite students to share** their responses to Problem 1. Record and display students' responses on the *Questions About Math Games* chart and consider placing a checkmark next to similar questions.

**[EL] English/Multilingual Learners:** Foster students' metalinguistic awareness by using a think-aloud strategy to model how to craft questions about two categories of data.. Invite students to compare their questions to the modeled questions.

**Read aloud** Problems 2–3. Have pairs work on Problems 2–3 for 5 minutes and then meet with another pair to share their responses.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 1**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What categories of data do you want to ask a question about?"
- Ask, "Which question stem do you want to use to ask your question?"

## Connect

Connect Storyboard Art FPO

X–X **Display** the Activity 1 PDF.

**Use the Think-Pair-Share routine.** Ask, "What equations could be used to represent the relationship between the known and unknown amounts?"

**Record** students' responses such as the equation 8 + 4 + 6 = _.

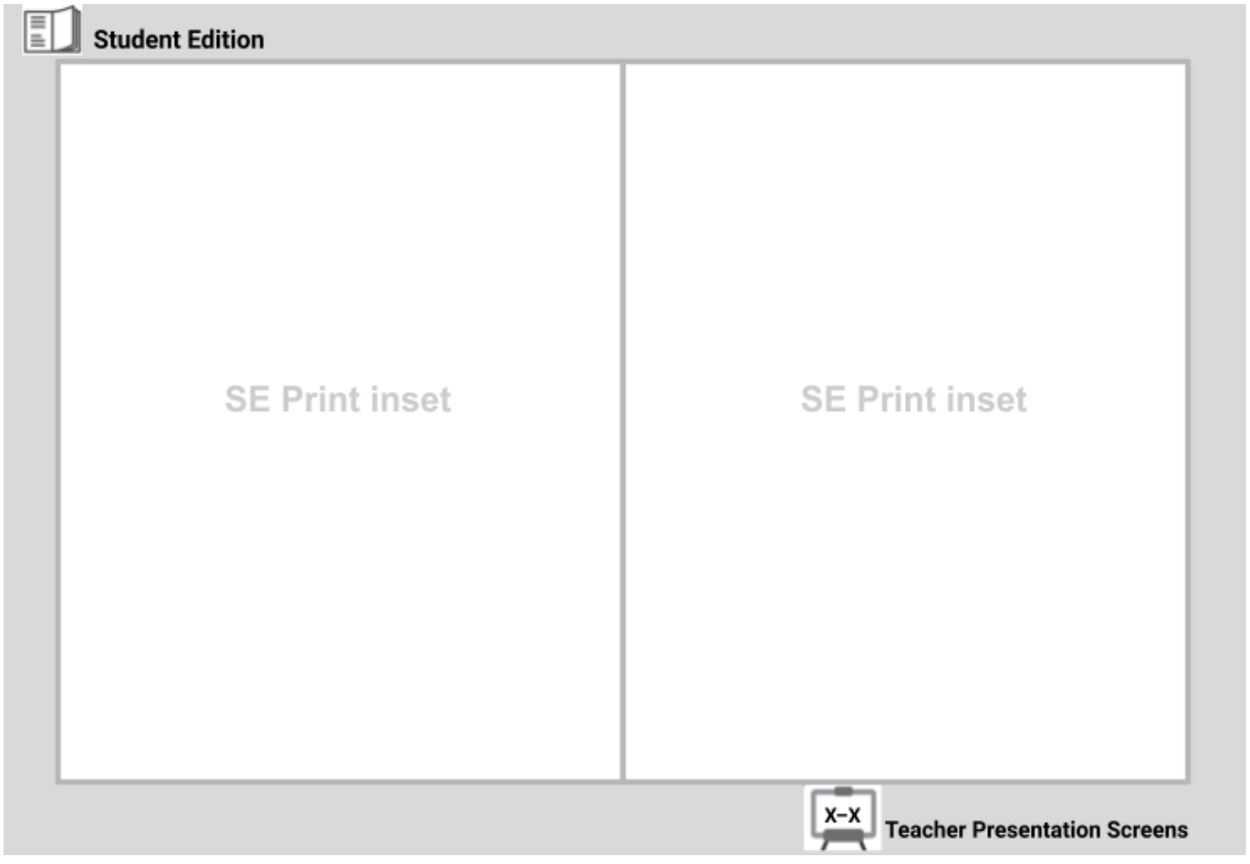
**Use the Think-Pair-Share routine.** Ask, "Which numbers would you add first and why?"

**[L] MLR8: Discussion Support - Revoicing**

As students share the amounts they would add first and why, revoice their ideas in the form of a question using mathematical language. For example:

- If a student says, "I took 2 from 4 and added it to 8." ...
- Revoice their ideas by asking, "Did you break apart 4 into 2 and 2 and then make 10 by adding 2 to 8?"

**Key Takeaway:** Say, "One way to interpret data is to find the total amount in all categories. You can use strategies you know for adding 3 values to find the total amount in 3 categories of data."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Ask a question about one category of data. | How many rounds of Estimate and Measure did Sean and Trevor play? | Ask, "What question can you ask about 2 categories of data?" |
| Ask a question about two categories of data. | How many more rounds of Estimate and Measure did they play compared to Last Number Wins? | Ask, "What question can you ask about 3 categories of data?" |
| Ask a question about three categories of data. | How many total rounds did Shawn and Trevor play for all 3 games? | ****Extend Thinking****<br>Ask, "What is a question that cannot be answered with the data without more information?" |

Print Lesson | Pairs | 15 min

# Activity 2 Missing Measurement

**Purpose:** Students apply what they know about adding, subtracting, and comparing amounts to answer questions about an incomplete representation of data.

**Presentation Screens X–X**


**Materials**
- connecting cubes (optional) (Manipulative Kit)

## Launch

Launch Storyboard Art FPO

X–X **Say,** "Sean and Trevor decided to play Estimate and Compare again! They chose a book, a pencil, and a computer screen to measure. After measuring the objects with connecting cubes, they recorded the lengths on their recording sheet, but they forgot to record the length of the pencil."

**Read aloud** the directions and Problems 1–2.

## Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

After/While students have completed/complete **Problem 2**, refer to the ***Differentiation*** | ***Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What are you trying to find?"
- Ask, "What amount in the data representation is needed to find the length of the pencil?"

[A] **Accessibility: Visual-spatial processing** Provide access to connecting cubes. Ask, "How can you represent the lengths of the book and computer screen using the cubes?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Problem 2.

**Invite students to share** their responses. Select and sequence their responses in the order shown in the *Differentiation* table.

**[L] MLR7: Compare and Connect**

**Use the Think-Pair-Share routine.** Ask:

- "How are these strategies the same?"
- "How are these strategies different?"

**Say,** "There is more than one way to find the difference between two amounts."

**Key Takeaway:** Say, "One way to interpret 3 categories of data is to compare the amounts in two categories. You can use strategies you know for comparing amounts to find the difference between two categories of data."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Build or draw the amounts and line them up to find the difference. |  | Ask, "How could you compare the amounts without representing the lengths with objects or drawings?" |
| Add to find the difference. | 15 + 2 = 17 | ****Extend Thinking****<br>Ask, "What other question could you ask about these two categories of data that would also have an answer of 2?" |
| Subtract to find the difference. | 17 - 15 = 2 | |

Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** The same strategies that can be used to solve addition and subtraction story problems can be used to interpret 3 categories of data.

Presentation Screens X–X


X–X

Summary screen here
(inset 2nd Summary screen, Animation)

Heights of towers

| | |
|---|---|
| blue tower | 9 unit cubes |
| red tower | 5 unit cubes |
| yellow tower | 2 unit cubes |

X–X **Use the Think-Pair-Share routine.** Ask:

- "What strategies could you use to find how many unit cubes there are in all three towers?"
- "What strategies could you use to compare how many more blue towers there are than red towers?"
- "How are the strategies you use for solving story problems similar or different from the strategies you use to answer questions about data?"

**Say,** "You can use the same strategies you use to solve story problems to answer questions about data. What strategies for addition and subtraction did you try today? What strategies do you still want to try?"

# Show What You Know (Optional)

Independent | 5 min

Exit Ticket
Print PDF

## Today's Goals

1. **Goal:** Use an ordered pair to plot and locate points on the coordinate plane.
2. **Language Goal:** Explain the relationship between an ordered pair and the location of the point on the plane. **(Speaking and Listening, Writing)**

Differentiation See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-Lesson** | | | |
| | 1, 2 | 2 | NY-1.MD.4<br>NY-1.OA.1 |
| **Spiral Review** | | | |
| Fluency | 3–8 | 1 | NY-1.OA.6b |
| | 9, 10 | 1 | NY-1.OA.6a |
| | 11 | 2 | NY-1.OA.2 |

# Center Choice Time

**Presentation Screen X**


**Purpose:** Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

## Math Stories


**Stage 4 – Add and Subtract**
**Pairs** | **15 min**| NY-1.OA.1

Students tell, represent, and solve addition and subtraction story problems about pictures.

**Materials**

- Directions, Math Stories Pictures (Stages 1 and 4), Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 3.**

## Measure and Compare


**Stage 1 – Measure Using Cubes**
**Pairs** | **15 min** | NY-1.MD.2, NY-1.OA.6a

Students find the difference between the lengths of 2 objects to practice measuring lengths and subtracting within 20.

**Materials**

- connecting cubes **(Manipulative Kit)**
- objects to measure **(Classroom materials)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 2.**

Use Centers as games to offer fun and engaging ways for students to practice math skills.

## What's Behind My Back?

Placeholder for Center Icon

**Stage 3 – 20 Cubes**
**Pairs** | **15 min** | NY-1.OA.4

Students hide a tower of 20 cubes, break off some cubes, and show their partner the remaining cubes. Students determine how many are missing and represent their thinking with an addition equation.

### Materials

- connecting cubes (20 per pair), double 10-frames **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

**Corresponds with the checklist from Unit 6, Sub-unit 3.**

Placeholder for Center Divider and Instructions Sheet.

## Differentiation | Teacher Moves

**Work with students in their Centers by:**

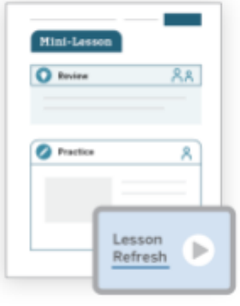
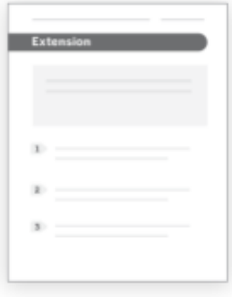
- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

**Consider pulling a small group of students for:**

- Reviewing the lesson's learning goal by using the *Mini-lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.

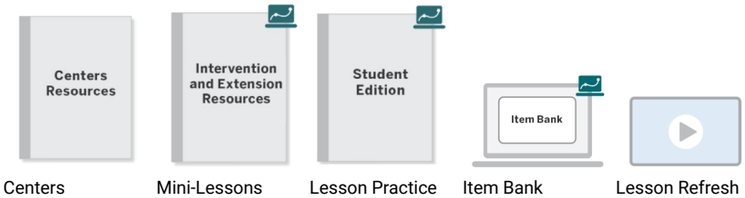
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh

Amplify Desmos Math **NEW YORK**

GRADE 1

# Unit 7

## Geometry and Time

Teacher lesson plans from Unit 7 are included here to enable your review of Amplify Desmos Math New York content that demonstrates coverage of the **Number and Operations in Base Ten (NY-1.NBT)** foundational area. We only included lessons in this unit that focus on the Foundational Standards.

Lessons in this unit include content that is pre-publication. We have included placeholder boxes and text to help you understand where final content and text will be placed. These lessons will be updated to match the design of Unit 1 provided in the Teacher Edition Sampler, Volume 1.

Lessons included in this unit include:

- **Lesson 7.07**

# Unit at a Glance

**Unit Investigation**

Launch the unit with this engaging mathematical task!

## Assess and Respond

### A Pre-Unit Check

Learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1.

NY-K.G.1, NY-K.G.2
MP6 MP7

## Unit Investigation

### 1 Solid Shape Hunt

**Which solid shape will we see the most in our school?**

Build a block tower and justify how its height compares to the height of a shorter and taller classroom object.

Building Toward: NY-1.G.1,
MP6 MP7

## Sub-Unit 1

### 2 Building With Nonna and Pia

**Composing Three-Dimensional Shapes**

Compose castles and rectangular prisms with solid shapes, and describe shapes and their attributes.

NY-1.G.2
MP6 MP7

### 3 What Shapes Go With The Spotlight Shape?

**Sorting Two-Dimensional Shapes by Their Attributes**

Create a group of shapes with a common attribute and determine the common attribute for other groups of shapes.

Building Toward: NY-1.G.1
MP3 MP6

## Assess and Respond

### A Quiz: Sub-Unit 1

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.G.1
MP6 MP7 MP8

## Sub-Unit 2

### 8 Parts of Shapes

**Partitioning Circles, Squares and Rectangles into Fourths**

Compose a circle using four pieces and split squares and rectangles into four equal parts.

NY-1.G.3
MP7 MP8

### 9 Splitting Shapes into Equal Parts

**Partitioning Circles, Squares and Rectangles into Halves**

Split shapes into two equal parts and determine whether shapes are split into fourths, halves or neither.

NY-1.G.3
MP6 MP7

### 10 One of the Parts, All of the Parts

**Describing One Part as a Half or a Fourth**

Identify a fourth and a half of shapes and discuss the number of fourths and halves in the whole shape.

NY-1.G.3
MP6

## Sub-Unit 3 continued

### 14 The Minute Hand

**Telling Time to the Hour and Half Hour with Both Hands**

Tell time to the hour and half hour on clocks showing both hands using the language *half past* and *o'clock*.

NY-1.MD.3a
MP6 MP7

### 15 Keeping Score

**Representing and Solving Story Problems About Data**

Interpret data to practice familiar strategies for finding sums and differences between categories and solve *Compare* story problems.

NY-1.MD.3a
MP6 MP7

### 16 What Can We Ask About Clocks?

**Describing the Time Shown on Clocks**

Give clues and ask questions about times on the clock to attend to the position of the hour and minute hands.

NY-1.MD.3a
MP6 MP7

## Summative Assessment

### A End-of-Unit Assessment

Learn about your students' understanding of the concepts and skills in the unit.

NY-1.G.1, NY-1.G.3, NY-1.MD.3a
MP3 MP6 MP7 MP8

4 **Drawing Flat Shapes**

**Drawing and Describing the attributes of Rectangles and Triangles**

Draw different triangles and rectangles on dot paper and determine which attributes define each shape.

NY-1.G.1
MP3 MP6

5 **Some Triangles, All Triangles**

**Identifying the Attributes of Rectangles**

Distinguish between examples and nonexamples of triangles and justify reasoning based on defining attributes.

NY-1.G.1
MP3 MP6

6 **Some Rectangles, All Rectangles**

**Identifying the Attributes of Rectangles**

Distinguish between examples and nonexamples of rectangles and justify reasoning based on defining attributes.

NY-1.G.1
MP3 MP6

7 **Making Shapes From Flat Shapes**

**Composing Two-Dimensional Shapes**

Compose shapes from two-dimensional shapes and identify smaller composite shapes within the larger shapes.

NY-1.G.2 NY-1.NBT.3
MP8

## Assess and Respond

## Sub-Unit 3

11 **A Bigger Part**

**Comparing the Size of a Fourth and a Half**

Recognize that splitting something into more equal parts creates smaller parts by comparing halves and fourths of the same whole.

NY-1.G.3
MP3 MP8

A **Quiz: Sub-unit 2**

Learn about your students' understanding of the concepts and skills so far in this unit.

NY-1.G.3
MP3 MP6

12 **It's Time For Clocks**

**Telling and Writing Time to the Hour**

Order clocks showing only the hour hand and tell time to the hour using the language o'clock.

NY-1.MD.3a
MP6 MP7

13 **Half Past**

**Using the Hour Hand to Tell Time to the Half Hour**

Order clocks showing only the hour hand and tell time to the half hour using the language *half past*.

NY-1.MD.3a
MP6 MP7

This lesson is still being upgraded to the Amplify Desmos Math design style for the 2025-2026 school year and may include editorial notes.

UNIT 7 | **LESSON 7**

# Making Shapes From Flat Shapes

## Composing Two-Dimensional Shapes

Let's make and describe new shapes from smaller shapes.

**Student Edition pages , Manipulatives,** and **Presentation Screens** support learning in this lesson.


## Focus and Coherence

### Today's Goals

1. **Goal:** Compose two-dimensional shapes from smaller shapes and compose new shapes from the composite shapes.
2. **Language Goal:** Describe the two-dimensional shapes within a composite shape. **(Speaking, Listening, and Writing)**

Students create and analyze two-dimensional composite shapes. They identify the smaller shapes, including composite ones, that they see within the larger shapes. Students use repeated reasoning to build new shapes and notice that composite shapes can be made with a greater number of smaller shapes. **(MP8)**

### Prior Learning

In Lesson 2, students made composite solid shapes. In Lessons 5 and 6, students described the attributes of squares and rectangles.

### Future Learning

In Lessons 8 and 9, students will compose and partition circles, squares, and rectangles to understand equal parts.

## Rigor and Balance

- Students **apply** their understanding of two-dimensional shapes and their attributes to describe and compare composite shapes.

## Vocabulary

**Review Vocabulary**

- *attribute*
- *greater than*
- *less than*
- *rectangle*
- *square*
- *triangle*

## Standards

### Addressing

**NY-1.G.2**

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Note: Students do not need to learn formal names such as "right rectangular prism."

*Also Addressing*: NY-1.NBT.3

**Mathematical Practices:** MP7, MP8

| Building On | Building Toward |
|---|---|
| NY-K.G.6 | NY-1.G.3 |

**I am a doer of math.**
In math class, how might someone else's mistake help you learn?

Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

# Lesson at a Glance 60 min

Print Lesson

Standards: NY-1.G.2, NY-1.NBT.3

## Warm-Up **Fluency** Whole Class | 10 min

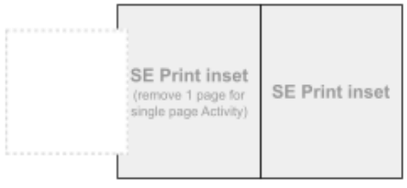
Students use the **How Many Do You See?** routine, in which they develop fluency by looking at and describing the smaller shapes and composite shapes they see within the larger figure. Students have an opportunity to see that there are a variety of ways to see and describe arrangements. (MP7)


Screens X–X

## Activity 1 Small Groups | 15 min

In groups, students compose a shape using triangles. Students describe the smaller composite shapes they see within the larger shape. Students are encouraged to look for different shapes including those that overlap other shapes they've identified.

**Additional Prep** Cut out: *Squares* PDF and triangles (as needed)




Screens X–X

## Activity 2 Pairs | 15 min

Students analyze a completed pattern block puzzle. They compose the same puzzle using a greater number of pattern blocks and compare the number of pattern blocks in each puzzle with inequality statements.


Screens X–X

## Synthesis Whole Class | 5 min

Students review and reflect on different ways to compose two-dimensional shapes and notice that the same shape can be made using more or less shapes.


Screens X–X

## Center Small Groups | 15 min

Students are introduced to the Center *How Are They The Same?, Stage 1,* in which students take turns selecting two shapes from a set that share an attribute. The other students draw a new shape that also shares an attribute with the two selected shapes. Students compare their drawings and describe the attribute their shapes have in common.

**Additional Prep** Cut out: *Shape Cards, Grade 1* PDF


Screens X–X

## Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

### This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Exit Ticket PDF (Optional)

### Additional required materials:

- **Lesson Resources:** Activity 1 PDF, *Squares* (one square per student), Activity PDF, *How Many Squares?* (for display) (optional), Activity 2 PDF
- **Manipulative Kit:** pattern blocks
- **Classroom materials:** chart paper, *Flat Shapes* chart (from prior lessons), markers, scissors, straightedges
- **Centers Resources:** Directions, *Shape Cards, Grade 1* PDF, straightedges, Recording Sheet

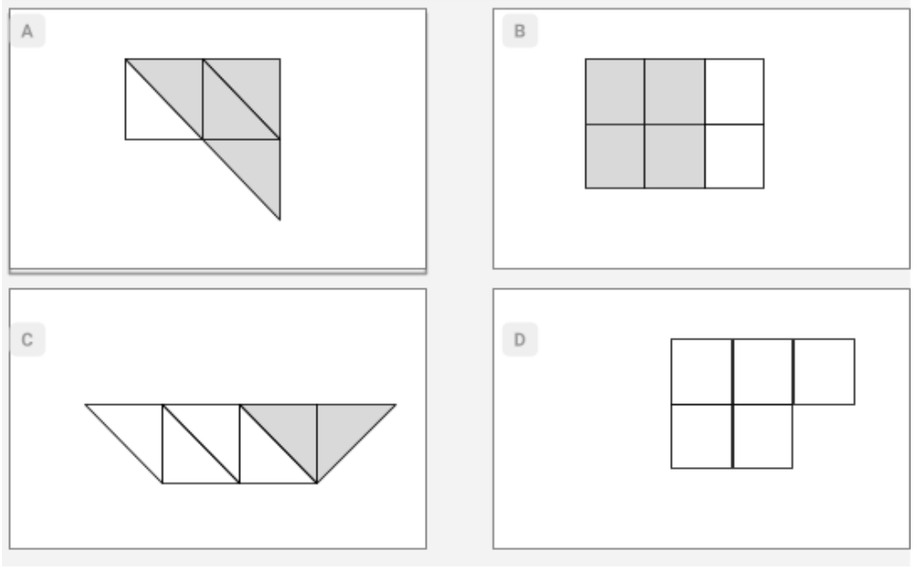
Print Lesson | Whole Class | 10 min

# Warm-Up How Many Do You See?

**Fluency**

**Purpose:** Students determine the number of shapes they see within composite figures, including overlapping shapes, to build on their understanding of the defining attributes of two-dimensional shapes.

Presentation Screen X


Students' responses may vary, depending upon which shapes they see in each figure.

## Launch

Use the How Many Do You See? routine.

X–X **Display** the image and ask, "How many do you see? How do you see them?"

## Connect

X–X **Record** students' responses as they share, honoring all explanations and keeping responses displayed.

**Ask,** "How many rectangles that are not squares can you find in the last shape?"

**Say,** "There are 6 rectangles that are not squares. Let's count them."

### Students might say . . .

A: I see 6 triangles. I see one big triangle and 5 smaller triangles.

B: I see 1 big rectangle, 1 big square and 6 small squares.

C: I see 6 small triangles and 1 bigger triangle.

D: I see 6 small squares and 1 bigger square.

Print Lesson | Small Groups | 15 min

# Activity 1 Making Shapes With Triangles

**Purpose:** Students create a composite shape using triangles and describe the smaller shapes within the composite figure to identify the defining attributes of two-dimensional shapes.

**Presentation Screens X–X**


## Materials

- Activity 1 PDF, (one square per student), Pre-cut triangles (as needed), Activity 1 PDF, *How Many Squares?* (for display) (optional) **(Lesson Resources)**
- scissors, straightedges **(Classroom materials)**

## Launch

Launch Storyboard Art FPO

X–X **Display** a paper square and ask, "What shape is this?"

**Say,** "Watch how I fold the square from corner to corner diagonally. Fold your square in the same way. Then open it back up."

**Ask,** "What shapes do you see?"

**Say:**

- "The paper is still in the shape of a square, but you can also see two triangles in the square."
- "Cut along the folded line so that you have 2 separate triangles."

**[A] Accessibility: Fine motor skills** Provide students with pre-cut triangles using the Activity 1 PDF, *Squares*.

**Arrange** students in groups of 4.

**Ask,** "Make 1 new shape by putting all of your triangles together."

**Read aloud** Problems 1 and 2.

## Monitor

Monitor Storyboard Art FPO

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

- Ask, "What tools might help you to draw the new shape?"
- Ask, "Which part of the shape will you draw first?"

## Connect

Connect Storyboard Art FPO

X–X **Display** 8 triangles in the shape of a large square or the *How Many Squares* PDF.

**Use the Think-Pair-Share routine.** Ask, "How many squares do you see?"

**Say,** "There are 5 squares. Let's count them together."

**Use the Think-Pair-Share routine.** Ask, "How many other rectangles that are not squares do you see?"

**Say,** "There are 4 rectangles that are not squares. Let's count them together."

**Ask,** "What attributes did you look for that helped you to find all the squares?"

**Say,** "Looking for the shapes with 4 square corners and 4 sides that are equal in length can help you find the squares."

**Key Takeaway:** Say, "You can find smaller shapes inside of larger shapes by looking for their attributes."

Student Edition

SE Print inset

SE Print inset

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| Describe the triangles they used to compose the shape. |  I see 8 triangles. There are 6 in the middle, 1 on the top and 1 on the bottom. | Ask, "Do you notice any larger shapes that the triangles formed when you put them together?" |
| Describe composite shapes they see within the larger composite shape. | I see a shape made with 2 triangles that looks like a diamond. | Ask, "What other shapes do you see?" |
| Describe composite shapes that overlap. | I see 9 triangles. I see 8 smaller triangles and one medium sized triangle on the side. | |

Print Lesson | Pairs | 15 min

# Activity 2 The Same Shape With More Shapes

**Purpose:** Students make a composite shape and compare the number of pattern blocks used to discover that the same shape can be made using smaller shapes.

**Presentation Screens X–X**


## Launch

Launch Storyboard Art FPO

X–X **Display** page 2 from the Unit Story.

**Say,** "When Mei and her grandfather were making jiaozi, he told her that one of his favorite things about celebrating the new year is seeing all the bright, colorful dragon decorations. Mei decided to make a dragon to surprise her grandfather."

**Say,** "Look at the dragon that Mei made using pattern blocks." **Ask**, "What shapes do you see?"

**Display** the hexagon, both rhombuses, and the trapezoid. Say, "This shape is a *hexagon*. Both of these shapes are *rhombuses*. This shape is a *trapezoid.*" **Note:** Students may use their own language to describe these shapes and they should be encouraged to do so throughout the lesson.

**Read aloud** Problem 1. Say, "With your partner, complete Problem 1 and then make the same dragon using a greater number of shapes."

**[L] MLR2: Collect and Display**

- Collect student language used to describe the shapes, such as *trapezoid, rhombus, hexagon, smaller, larger, greater than*, *less than*.
- Add the language to the *Flat Shapes* chart and remind students to refer to the display during class discussions.

**Say,** "After you have made your dragon, complete Problem 2." **Read aloud** Problem 2.

### Materials

- Activity 2 PDF (one per pair) **(Lesson Resources)**
- pattern blocks **(Manipulative Kit)**
- chart paper, markers, *Flat Shapes* chart (from Lesson 2) **(Classroom materials)**

**Short on time?** Consider omitting Problem 2.

## Monitor

Monitor Storyboard Art FPO

After students have completed **Problem 2**, refer to the ***Differentiation | Teacher Moves*** table on the following page.

X–X **If students need help getting started . . .**

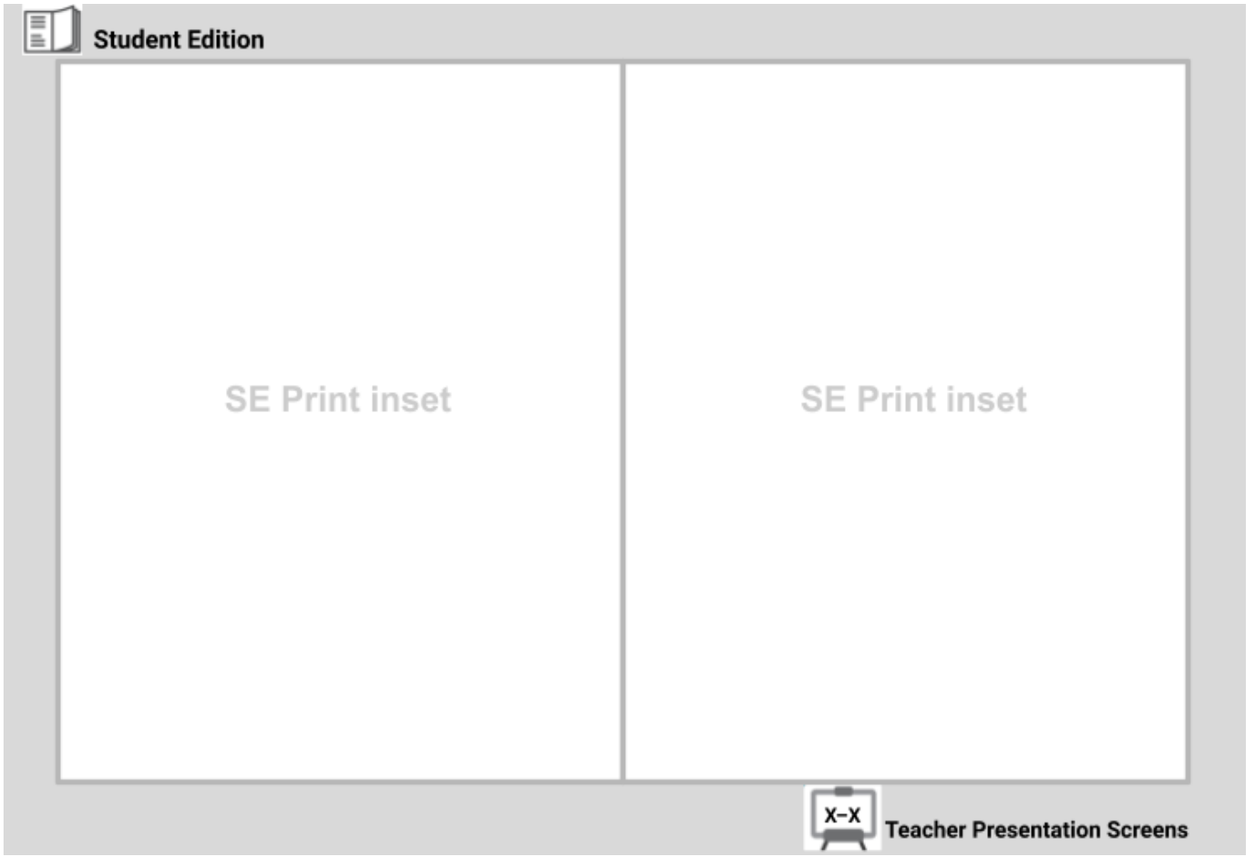
- Ask, "How can you find how many pattern blocks Mei used?"
- Ask, "How can you keep track as you count, so that you know you counted each pattern block only once?"

## Connect

Connect Storyboard Art FPO

X–X **Display** Activity 2 PDF, *Dragon Shape Puzzle,* and a student example in which they replaced at least one rhombus or hexagon with smaller shapes. Ask, "How did this pair create their dragon using a greater number of shapes?"

**Key Takeaway:** Say, "You can make the same shape using a greater number of pattern blocks by replacing larger shapes with smaller shapes."




## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Make a shape that has the same number of pattern blocks and write an equation. | 29 = 29 | Ask, "How can you use pattern blocks to make the dragon in a way that uses more shapes?" |
| **Almost there** Make a shape with a greater number of pattern blocks and write comparison statements that are not true. | 29 > 33<br>33 < 29 | Say, "As you read the first statement you see the wider part of the symbol first. When you see the wider part first, you say *'is greater than'.* Try reading each statement to yourself to be sure it matches what you want to say." |
| Make a shape with a greater number of pattern blocks and write comparison statements that are true. | 29 < 33<br>33 > 29 | **Extend thinking** Ask, "What is the greatest number of pattern blocks you can use to make the dragon?" |

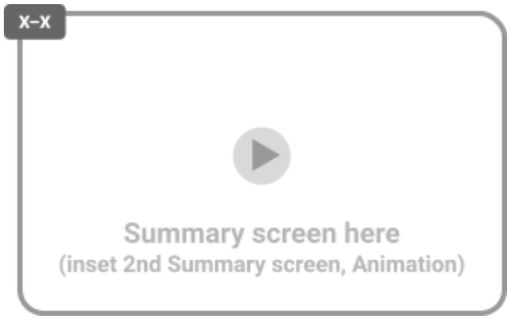
Print Lesson | Whole Class | 10 min

# Synthesis

**Lesson Takeaway:** Shapes can be combined to create new or different shapes, and shapes can be replicated by combining smaller shapes.

**Presentation Screens X–X**


X–X




**X–X Ask,** "What do you notice about these shapes?"

**Say,** "Both shapes are trapezoids, but one is made with 1 triangle and 1 rhombus and the other is made with 3 triangles. Even though the second one is made with 3 shapes, you can still see 2 of the triangles as 1 rhombus."

**Say,** "You can make the same shape in more than one way and describe all the shapes that you see."

# Exit Ticket (Optional)

Independent | 5 min


## Today's Goals

1. **Goal:** Compose two-dimensional shapes from smaller shapes and compose new shapes from the composite shapes.
2. **Language Goal:** Describe the two-dimensional shapes within a composite shape. **(Speaking, Listening, and Writing)**

**Differentiation** See the last page of the lesson for differentiation support.

# Practice

**Independent**

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.


***Students using digital***

***Students using print***

Placeholder for Practice section

Placeholder for Practice section

Placeholder for Practice section

| Practice Problem Item Analysis | | | |
|---|---|---|---|
| | **Problem(s)** | **DOK** | **Standard(s)** |
| **On-lesson** | | | |
| | 1, 3, 4 | 1 | NY-1.G.2 |
| | 2 | 2 | NY-1.G.1 |
| **Spiral Review** | | | |
| Fluency | 5–10 | 1 | NY-1.OA.6b |
| | 11–14 | 1 | NY-1.OA.6a |
| | 15, 16 | 1 | NY-1.NBT.4 |

Print Lesson | Small Groups | 15 min

# Introducing the Center

## How Are They the Same?, Stage 1

**Purpose:** Students develop their understanding of shapes by finding shared attributes.

**Presentation Screens X–X**


### Materials

- straightedges **(Manipulative Kit)**
- Directions, Shape Cards, Grade 1 PDF, Recording Sheet **(Centers Resources)**

### Launch

Launch Storyboard Art FPO

X–X **Demonstrate** how to play *How Are They the Same?*

- **Display** 6 shape cards face up.
- **Say,** "I am going to pick Shapes N and T because I notice two attributes that they have in common."
- **Ask,** "What attribute do you think I am thinking of?"
- **Say,** "The other students in my group will draw a new shape that has an attribute in common with Shapes N and T."
- **Say,** "After they draw their shapes they will explain the attribute that their shape has in common with the shapes I picked. It is okay if they picked a different attribute."
- **Say,** "Each student gets 1 point for a shape that no one else drew."

### Monitor

Monitor Storyboard Art FPO

**NOTE: The Monitor Storyboard Art must be spec'd by Curriculum and include Asset ID's.*

**Observe** students as they describe the attributes that their shape has in common with the two selected shapes. Support students by encouraging them to use the words collected on the *Collect and Display* Chart in Lesson 3.

### Connect

Connect Storyboard Art FPO

X–X **Display** Shapes O and Q.

**Ask,** "What attribute do these shapes have in common?"

**Say,** "They both have 4 corners."

**Key Takeaway:** Say, "Some shapes are different but have one or more attributes in common."

Centers Resources

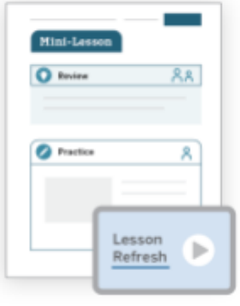
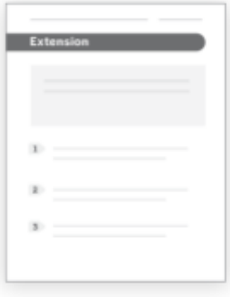

Teacher Presentation Screens

## Differentiation | Teacher Moves

| Look for students who . . . | For example . . . | Provide support . . . |
|---|---|---|
| **Almost there** Draw a shape based on looks. |   I drew a rectangle because it looks like the other shapes. | Ask, "How could you use an attribute word, like sides or corners, to describe why you think a rectangle looks like the other shapes?" |
| **Almost there** Draw one of the selected shapes in a different size. | I drew a small square because it has straight sides, just like the big square and the other shape. | Ask, "What is a *new* shape you could draw that has straight sides?" |
| Draw a new shape that shares an attribute. | I drew a triangle because it is another shape with corners. | **Extend thinking** Ask, "What shapes do you think groupmates might be drawing?" |

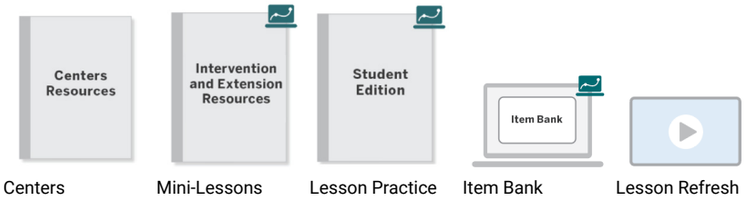
# Differentiation Use after this lesson.

**Use these Differentiation resources based on your students' understanding of the lesson goal.**

| Support | Strengthen | Stretch |
|---|---|---|
| Provide targeted intervention for students by using these resources. | Reinforce students' understanding of the concepts assessed by using these resources. | Challenge students and extend their learning with these resources. |
| **If Students** need more support with their understanding of the lesson goal:<br><br>**Respond:**<br>• **Mini-Lesson** \| 15 min<br>• **Lesson Refresh** | **If Students** would benefit from activities or practice to strengthen their understanding of the lesson goal:<br><br>**Respond:**<br>• **Centers** \| 15 min<br>• **Lesson Practice** \| 15 min<br>• **Item Bank** | **If Students** would benefit from one or more challenging tasks to extend their learning:<br><br>**Respond:**<br>• **Sub-Unit Extension Activities** \| 15 min |
|  |  |  |

**Support, strengthen,** and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

**Key** (Differentiation Resources)




Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank | Lesson Refresh