Amplify Science

Unit Internalization / Guided Planning

Grade K, Unit 1: Needs of Plants and Animals

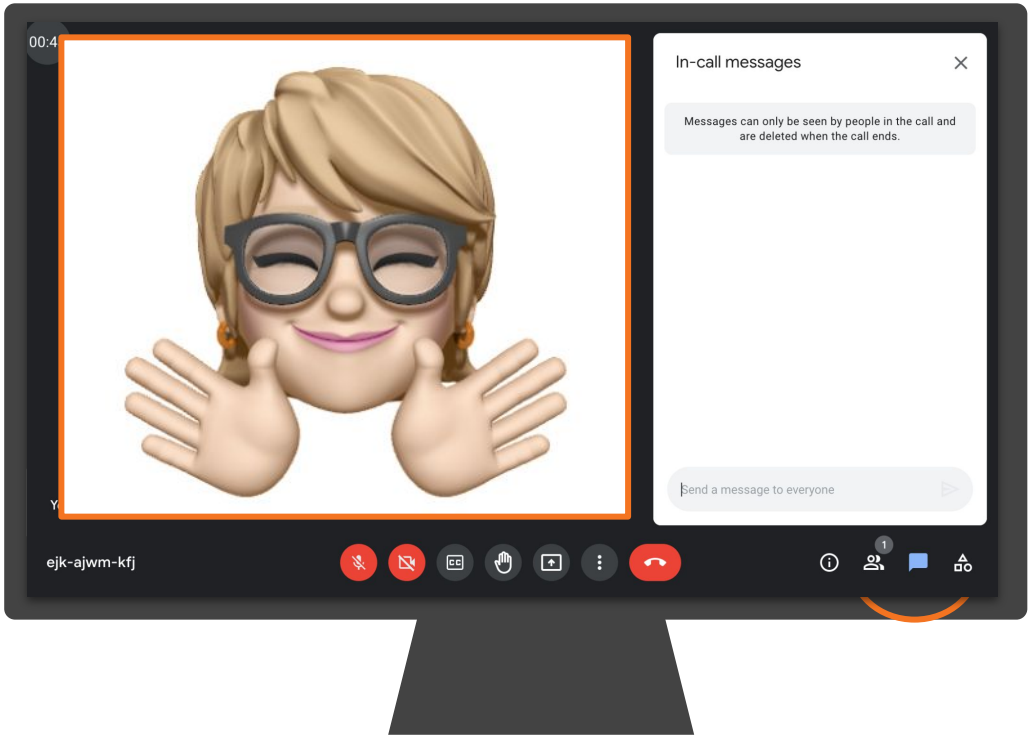
Part 1

School/District Name: LAUSD
Date: September, 2022
Presented by: Jolene Hori

Ice Breaker!

Who do we have in the room today?

- **Question 1:** Which aspects of implementing the Amplify Science standard curriculum has been the most successful?
- **Question 2:** Which aspects have been the most challenging?



Amplify's Purpose Statement

Dear teachers,

You do a job that is nearly impossible and **utterly essential**.

We are in your corner – extending your reach, saving you time, and enhancing your understanding of each student.

Thank you for working with us to craft rigorous and riveting learning experiences for your classroom.

We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

Sincerely,
Amplify

Norms: Establishing a culture of learners

- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

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- To search the full list of digital learning tools, click "**Submit**".
- To search by Publisher Name or Textbook Title, type in a word associated to your adopted publisher, then click "**Submit**".
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To learn more about using the LMS App Center, please refer to the fo

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Grade Level	All	
Content Type	All	
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Amplify

Content Area: ELA
Grade Level: ES
Content Type: Supplemental
Integration Type: App (Left Navigation)
Purchase Type: District and School
Getting Started Guide
Other Info: School licenses required
mCLASS
CKLA
Amplify Reading
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Vendor Support Desk:
P: 800.823.1969
E: help@amplify.com
S: amplify.com/support/
Textbook Title(s):
NA

Join Amplify Science Schoology Group

To join Amplify Science Schoology ES Group: W4PK-W466-63F5B

Navigation Temperature Check

Rate yourself on your comfort level accessing Amplify Science materials and navigating a digital curriculum.

1 = Extremely Uncomfortable

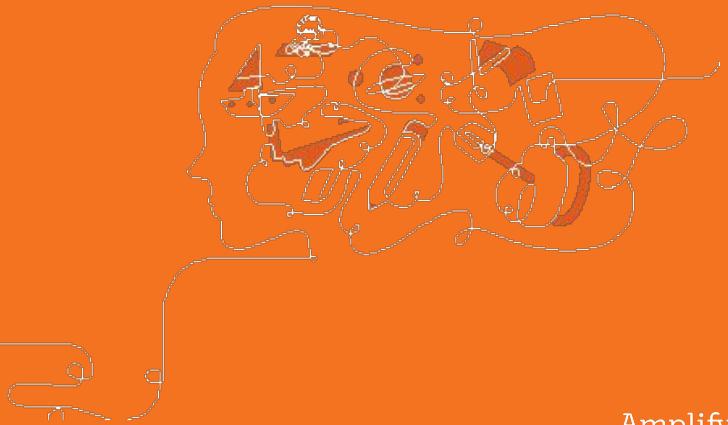
2 = Uncomfortable

3 = Mild

4 = Comfortable

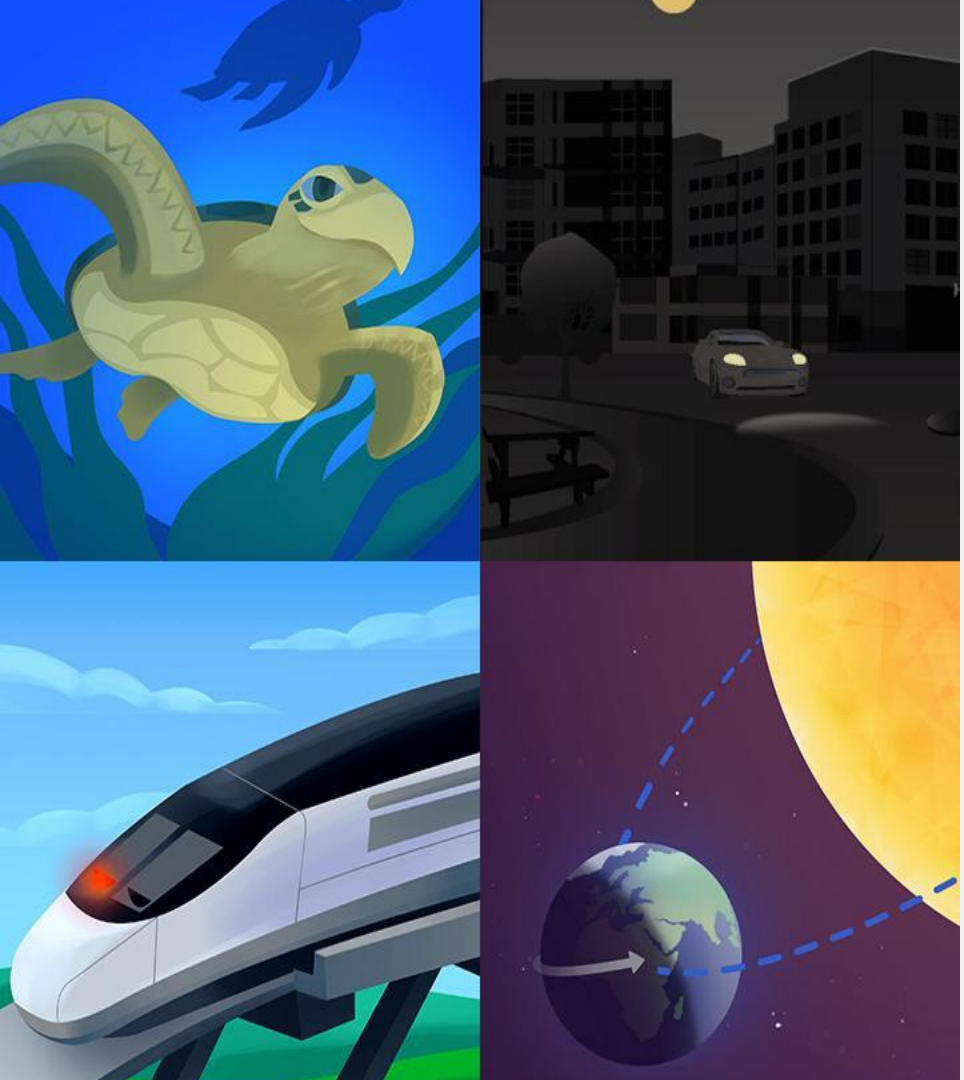
5 = Extremely Comfortable

Part 1



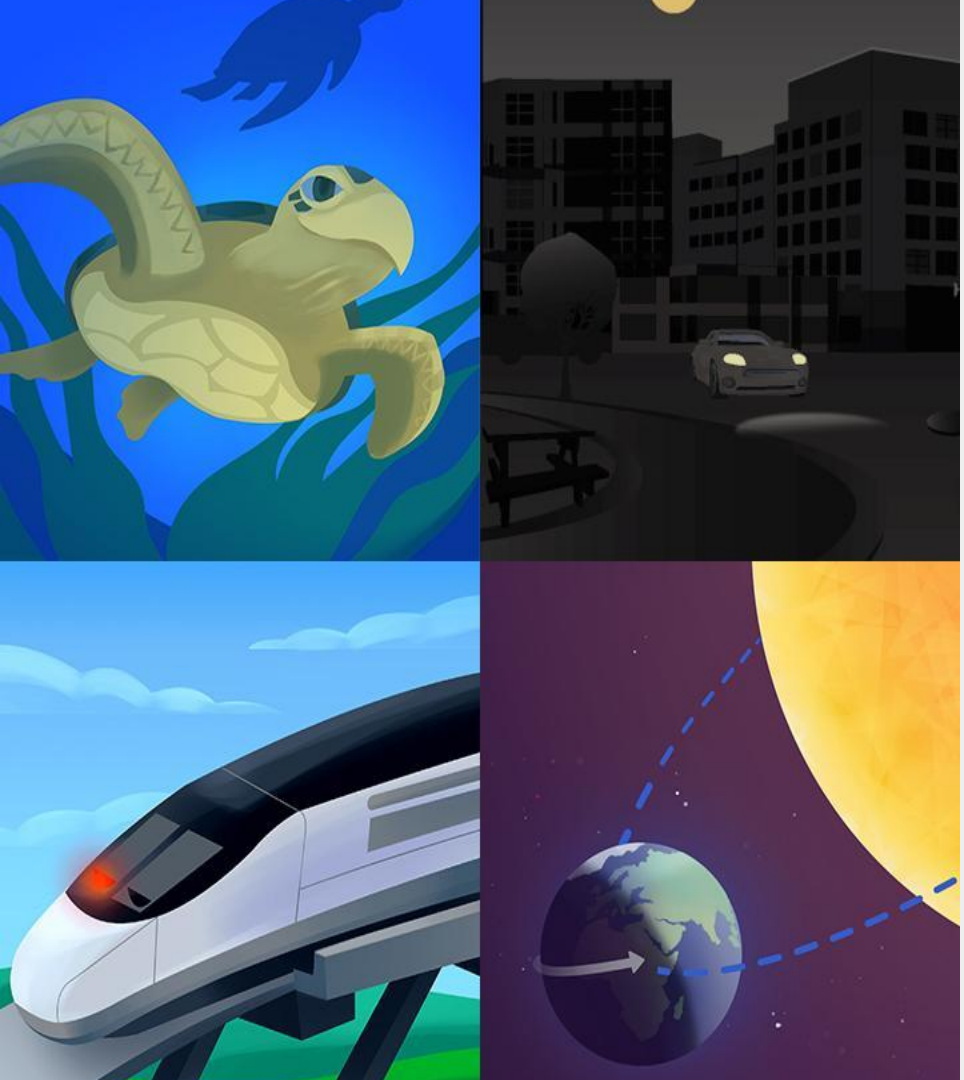
Overarching goals

- Explain how students engage in phenomenon based and 3D learning to construct an understanding of the science concepts introduced in the unit
- Internalize the unit and apply your new understanding to plan for the diverse needs of your classroom and students



Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing



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THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

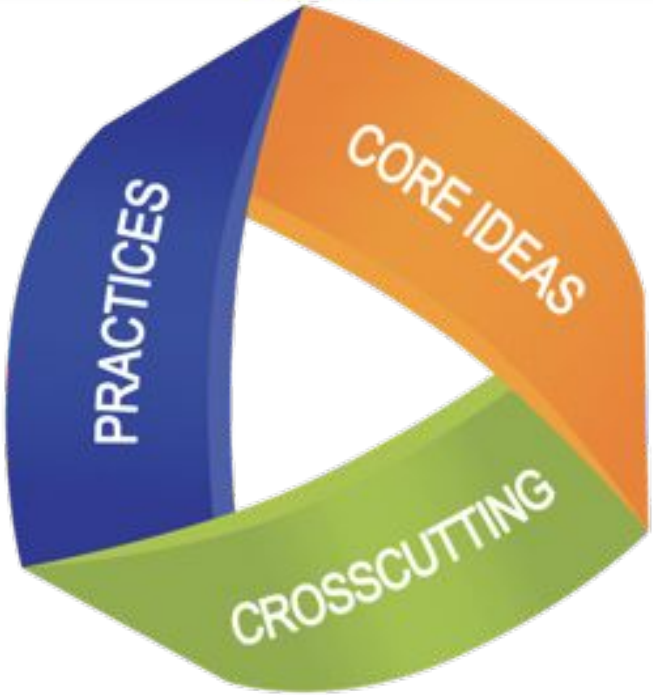
+ Amplify.

Amplify Science

Three dimensional learning

Evaluate your knowledge

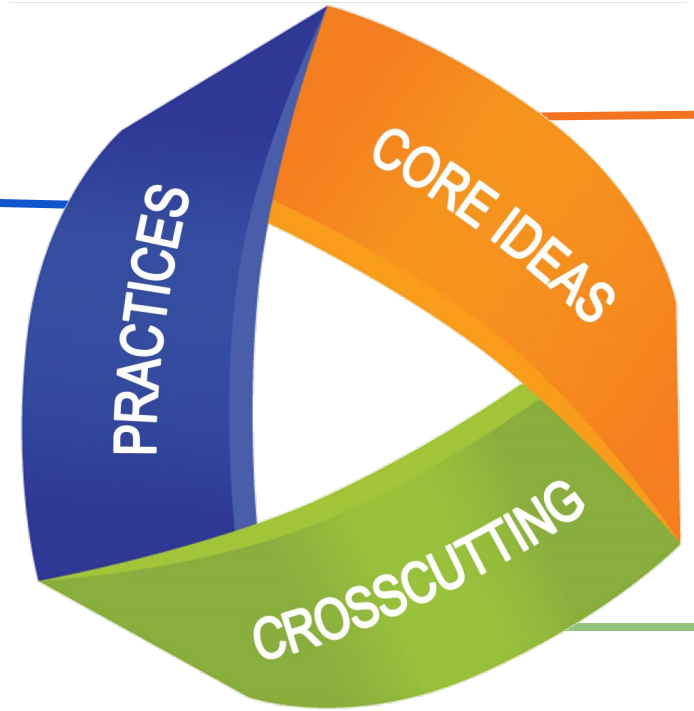
- On a scale of 0-5, how would you rate your familiarity with 3-D learning?



Figuring out Phenomena

Using 3-D teaching and learning

What scientists do
Science and Engineering Practices



What scientists want to know
Disciplinary Core Ideas

How scientists think
Crosscutting Concepts

Three-dimensional learning

Reflection

In the video, how did students engage in three-dimensional learning to think like scientists?

Lesson 3.3
Students further investigate seed dispersal by analyzing the number of droppings and the number of seeds per dropping that are transported to places where seeds can get what they need to grow (scale, proportion, and quantity).

Course curriculum structure

Grade K

- Needs of Plants and Animals
- Pushes and Pulls
- Sunlight and Weather

Grade 1

- Animal and Plant Defenses
- Light and Sound
- Spinning Earth

Grade 2

- Plant and Animal Relationships
- Properties of Materials
- Changing Landforms

Grade 3

- Balancing Forces
- Inheritance and Traits
- Environments and Survival
- Weather and Climate

Grade 4

- Energy Conversions
- Vision and Light
- Earth's Features
- Waves, Energy, and Information

Grade 5

- Patterns of Earth and Sky
- Modeling Matter
- The Earth System
- Ecosystem Restoration

Key takeaways:

- There are 22 lessons per unit
- Lessons at grades K-1 are 45 minutes long

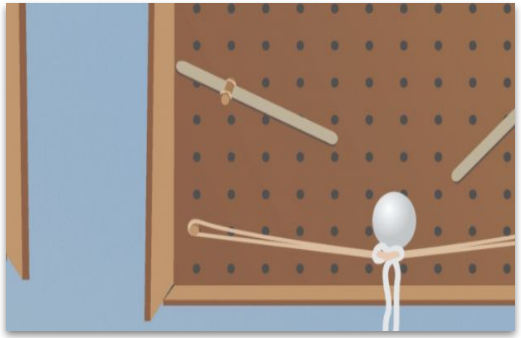
Year at a Glance: Kindergarten

Needs of Plants and Animals

Domain: Life Science

Unit type: Investigation

Student role: Scientist

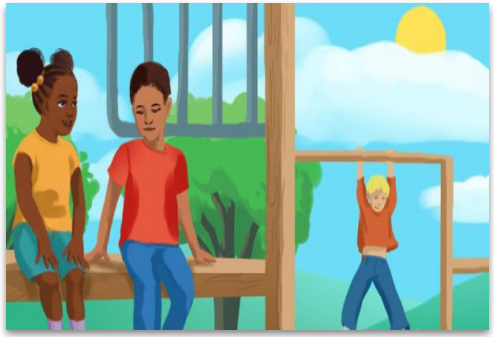


Pushes and Pulls

Domain: Physical Science

Unit type: Engineering Design

Student role: Pinball Engineer



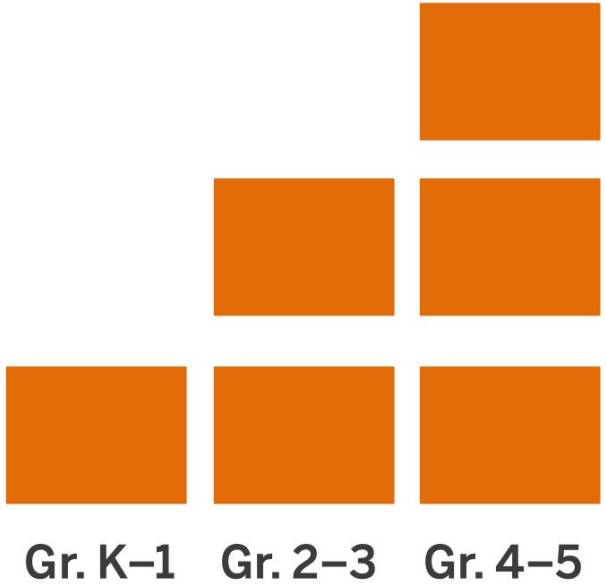
Sunlight and Weather

Domain: Earth and Space Science

Unit type: Modeling

Student role: Weather Scientist

What are the digital components of Amplify Science Elementary?



Student Simulations

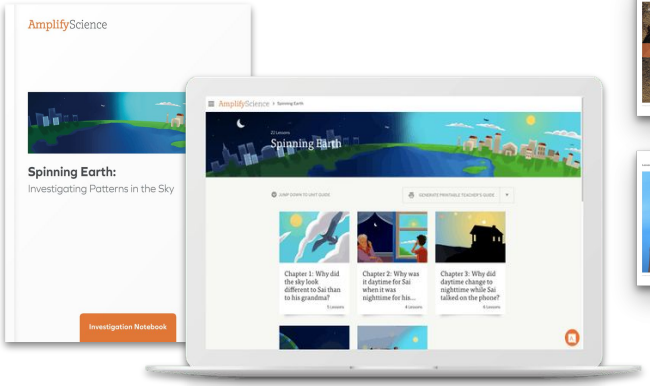
Student Science Practice Tools
(sorting tool, diagramming tool, modeling tool, data tool)

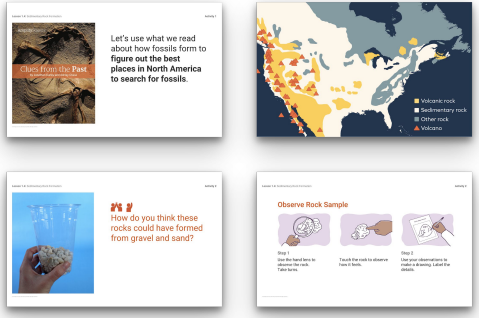
Teacher's Guide
(Online digital books for students)

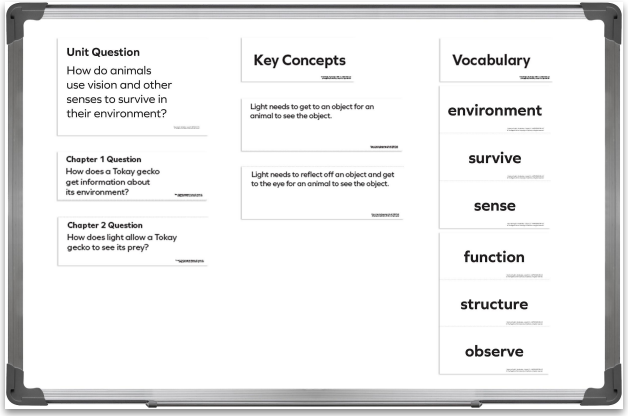
K-5 Program components

Teacher materials

- Teacher's Guide (print and digital)
- Classroom Slides
- Classroom wall materials
- Embedded assessments
- Program Guide
- Program Hub
- Amplify Help Site



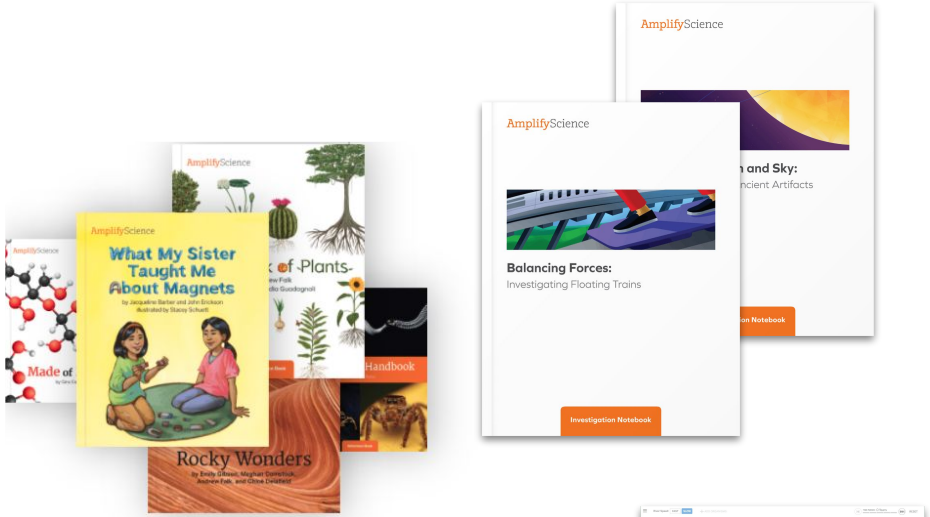


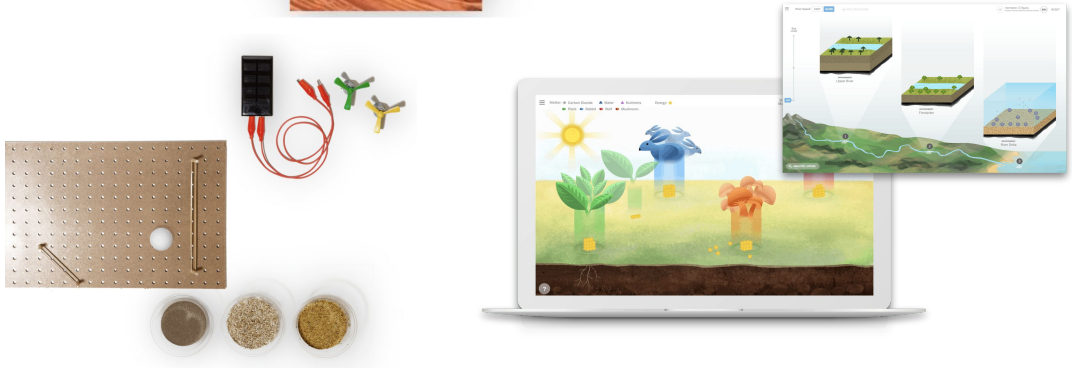


K-5 Program components

Student materials

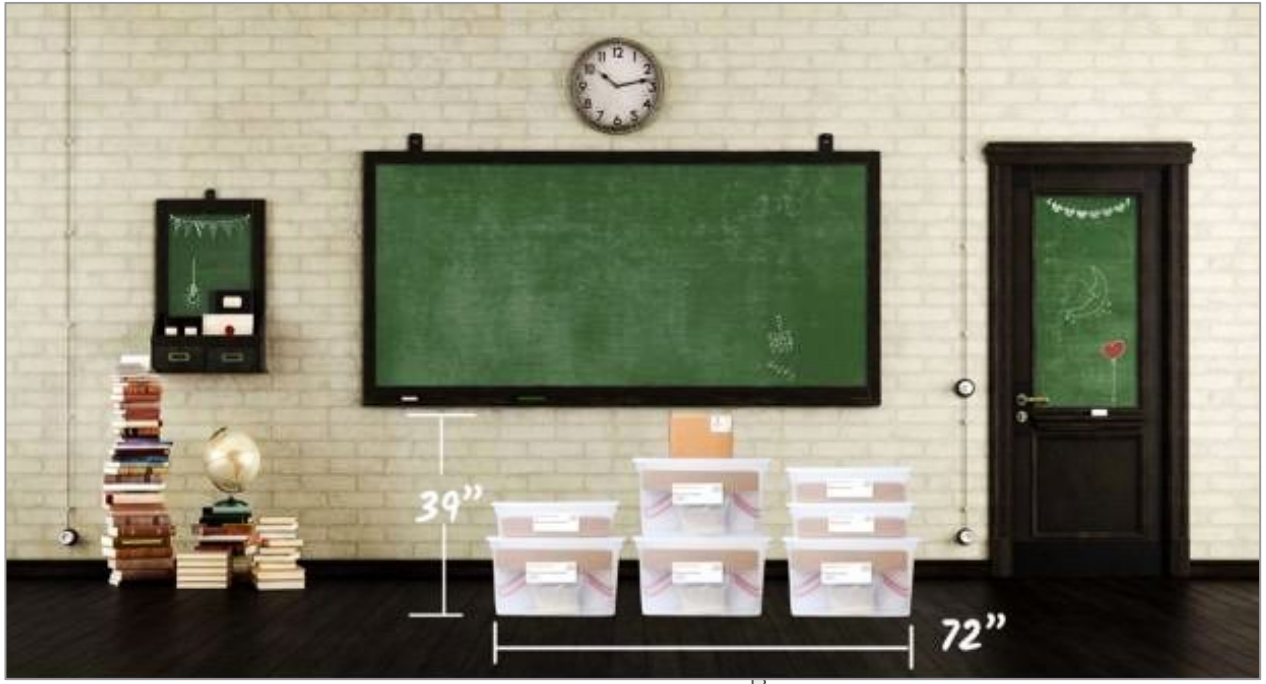
- Hands-on materials
- Investigation Notebooks (print and digital)
- Student books
- Digital Applications





Prepping Hands-On Materials for the Unit

Microsite: Unit 1, K-2 Lesson Prep Videos



Classroom Kits

Built for a class of 36 students, with consumables for two years

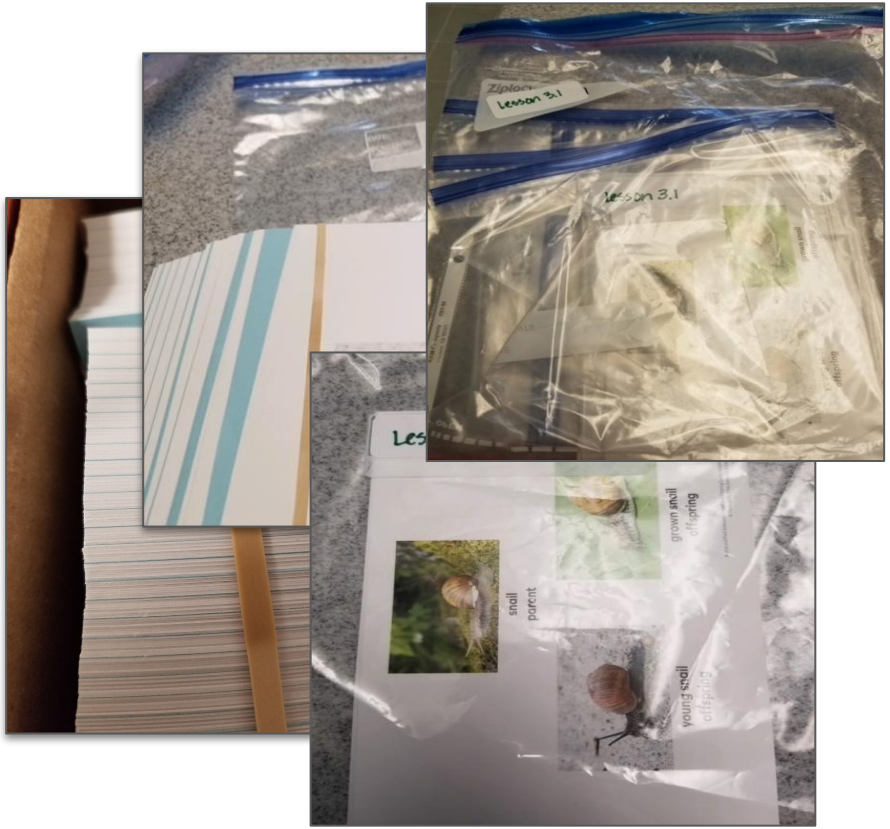
Unpacking the Kit

- Pull out the unit question, key concepts and vocabulary materials.
- Place them on the top of the table or bookcase below your science board
- Take books out of kit and place in the bookcase or on the table. (Always collect books after each lesson use. Return to bookcase so they are easily accessible.)

Cards for games, sorting or matching activities

Organization tips:

- Separate and place in envelopes or bags (or clip together)
- Label the envelopes or bags with the name and lesson # and activity # (ex. Lesson 2.4, Act. 1)
- Put each envelope or bag (1 set) into a bigger bag and label



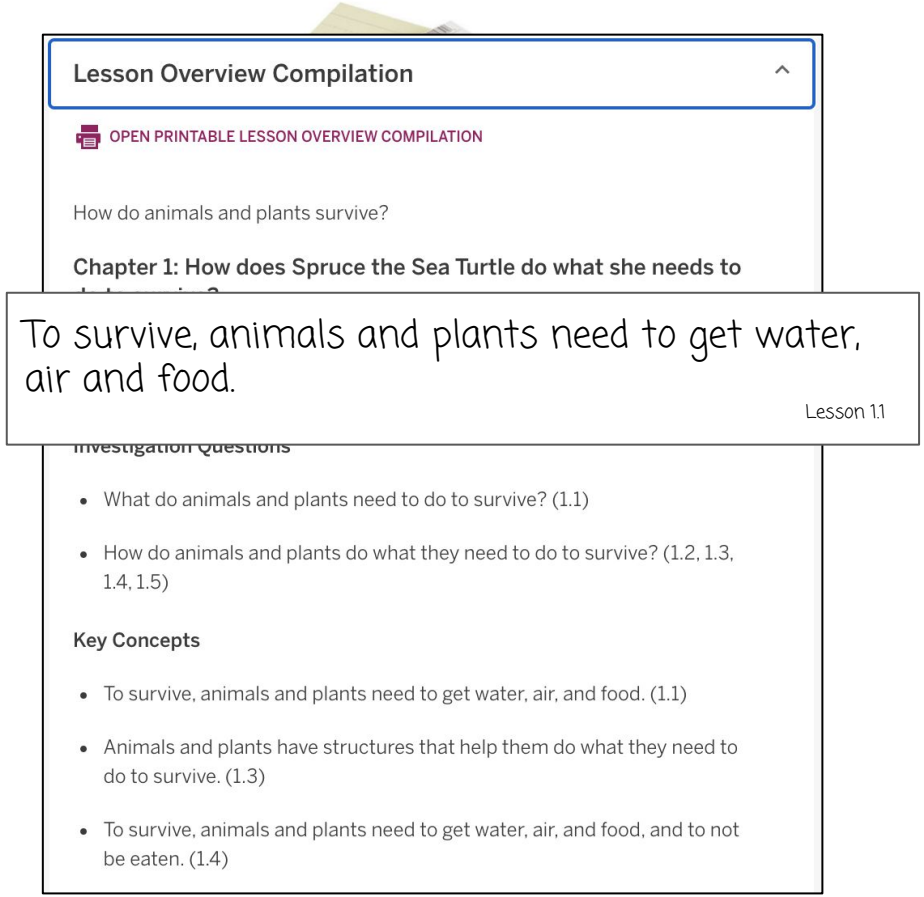
Grades K and 1

Key Concepts are not printed on card stock

Lawrence Hall of Science felt the key understandings should be developed with students.

Two Suggestions:

1. Have blank sentence strips ready to use when developing the key concepts to add to the classroom wall
2. Write out key concepts on sentence strips. Label with the lesson and put them with the chapter questions. (*Note: they can be found in the lesson overview compilation)*



LAUSD Microsite-
https://amplify.com/lausd-science

Welcome to Amplify Science!

This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

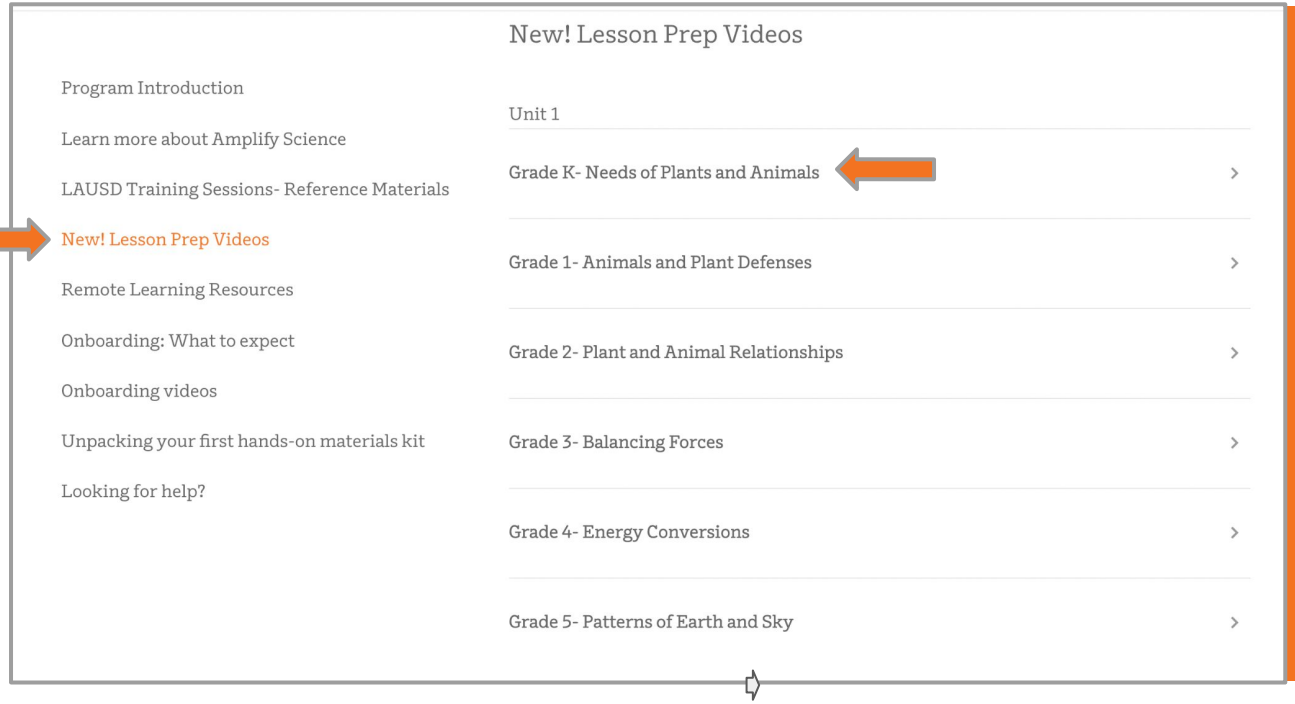
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
- Instructional guidance for a Responsive Relaunch of Amplify Science in 21-22

Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Giver participants 2 or 3 minutes to locate site, bookmark it and Go live to [LAUSD / AMPLIFY SCIENCE MICROSITE]

Microsite: Unit 1, K-2 Lesson Prep Videos

Classroom kits



Classroom Kits

Built for a class of 36 students, with consumables for two years

Hands On Material Organization

Directions

1. Open the Digital Lesson Guides Only page 7 from the Unit Landing page or go the Print TE to page 31. (Chapter 1 Activities)
2. Look for the lessons with Hands On.

HANDS-ON

3. Note in the table below.
4. Review the materials and preparation to determine if it can be prepared prior to the lesson or on the day of the lesson.
5. Use this same procedure for each Chapter. (Go to the Chapter Activities Contents)

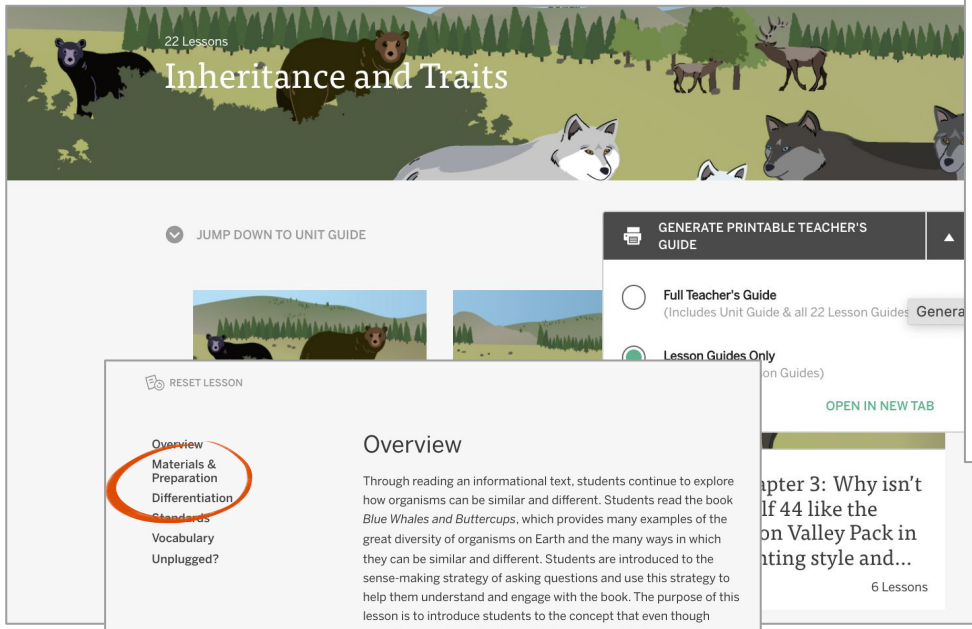
Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do	
1.1	1	X		Prep plastic bags with labels A, B, C, D and M. Place 1 tsp of the following cinnamon, salt, flour, cornstarch in A,B,C, D. In bag M mix 1 tsp salt and 1 tsp cinnamon.	*This is an example from Properties of Materials Grade 2*

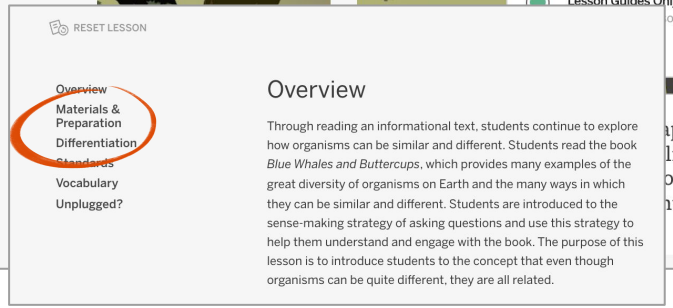
Hands On Material Organization

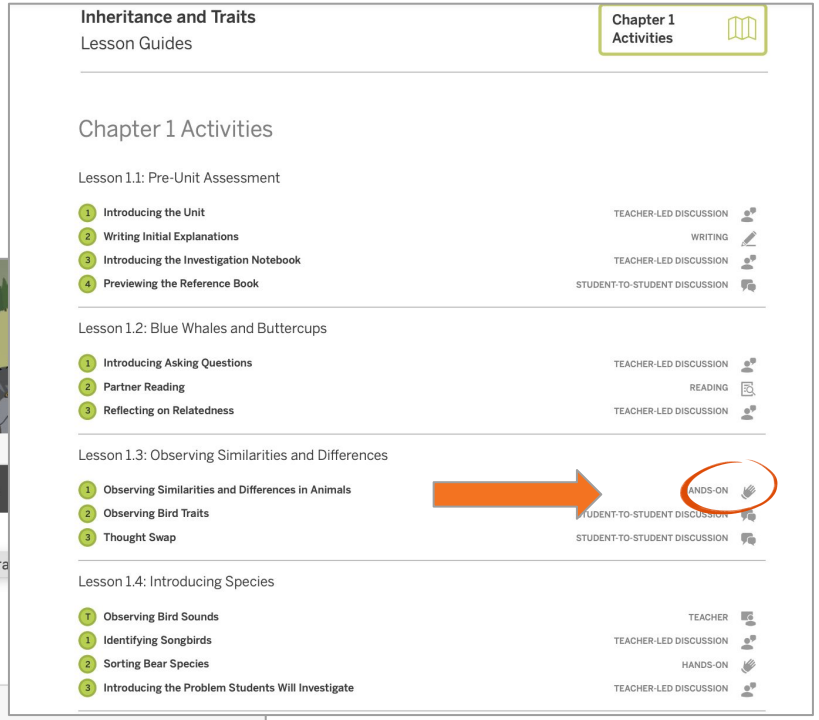
Completed for Needs of Plants and Animals

	A	B	C	D	E	F
1	**Directions**					
2	1. Open the Digital Lesson Guides Only page 7 from the Unit Landing page or go the Print TE to page 31. (Chapter 1 Activities)					
3	2. Look for the lessons with Hands On.					
4	HANDS-ON					
5	3. Note in the table below.					
6	4. Review the materials and preparation to determine if it can be prepared prior to the lesson or on the day of the lesson.					
7	5. Use this same procedure for each Chapter. (Go to the Chapter Activities Contents)					
8						
9	Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do	
10	1.3	2	X		Create Key concept, What Scientist Do chart, Walk Observation Chart. Prepare for the Science Walk. • Follow your school's procedures to inform parents of the walk around the school or neighborhood. • Arrange for enough volunteers for small groups of students. • Determine route for a walk that includes several opportunities to observe different plants and animals. • Walk the route in advance to check that walking at a slow pace allows for completing the circuit in 15–20 minutes.	
11	1.4	3	X	X	**Prep Prior:** Create Key concept, What Living Things Need chart. **Prep Day of:** Select areas in room to be activity stations. In Activity 3, you will have students rotate between nine stations, which each have a different Animals Eating Station Card. Try to find places for the stations that are spaced throughout the classroom and have room for up to four students to stand and look at the image. You'll need: Animals Eating Station Cards. . Gather the Food Sorting Cards and a pocket chart. In Activity 4, you will place these cards in a pocket chart during this lesson. Keep a set of cards near for chart.	
12	1.5	3	x	X	**Prep Prior:** Prepare the Explanation Language Frame. Using one or two sentence strips, write: "___ can live there because the ___ they need is there." You will use the Food Sorting Cards with this frame. Assemble Animal Habitat Station materials. • Select enough Animals and Their Foods Cards so each pair gets an animal. Make sure there is at least one pair assigned to each of the nine animals. Prep Day of: Choose where you will display the Animal Habitat Table Cards. You will need eight stations, with enough space at each to display an Animal Habitat Table Card and have students stand around the picture to observe it. Select two spaces on the wall on opposite sides of the room and post the pictures of the forest and the field of weeds habitats. Students will move to these two spaces in Activity 1. Keep these cards at eye level for students.	

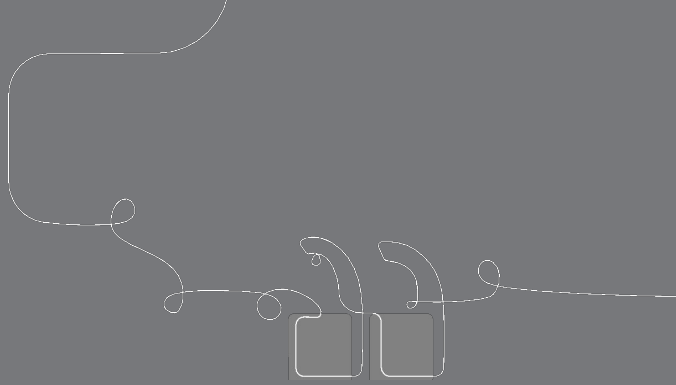
- Open Your **Lesson Guides Only**
- Start with **Chapter 1** and look for the **hands icon**
- Go into the lesson **materials and prep**

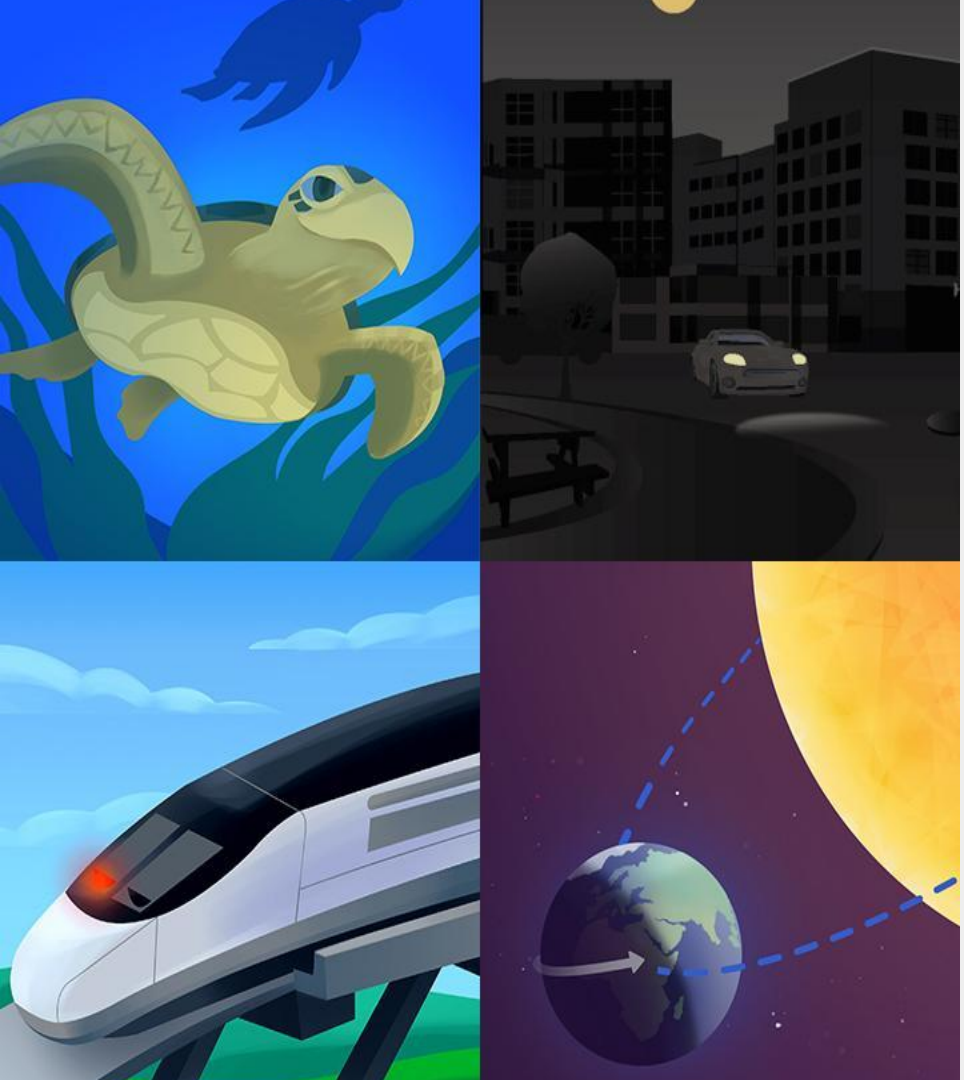






Questions?





Plan for the day: Part 1

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Next Generation Science Standards

Phenomenon-based learning and teaching

A scientific phenomenon is an **observable event** that occurs in the universe that we can use science ideas to explain or predict.

Comparing topics and phenomena

Topic-based	Phenomenon-based
Chemical reactions	There's a reddish-brown substance in a town's tap water.

Next Generation Science Standards

How might learning be different?

Topic-based	Phenomenon-based
Chemical reactions	There's a reddish-brown substance in a town's tap water.
Electric circuits	A flashlight won't turn on, even though it used to work.
Natural selection	A population of newts has become more poisonous over time.

Comparing topics and phenomena

A shift in science instruction

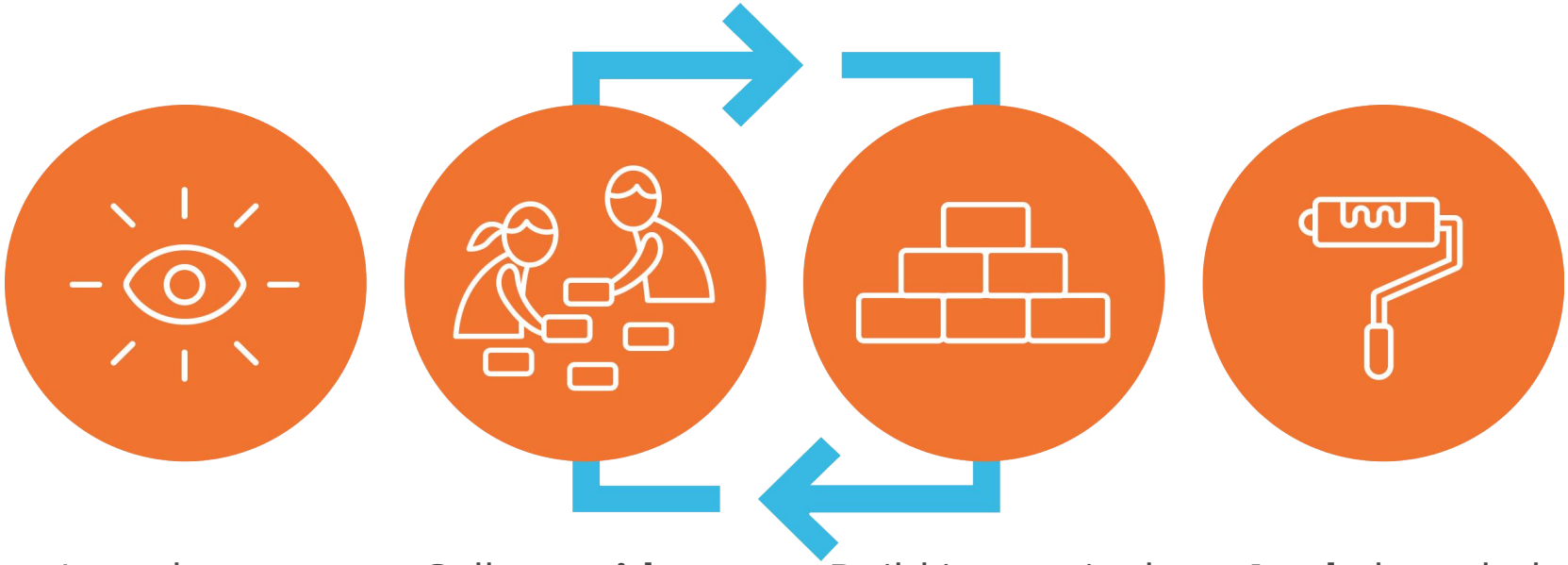
from learning about

(like a student)

to figuring out

(like a scientist)

Amplify Science Approach



Introduce a **phenomenon** and a related problem

Collect **evidence** from multiple sources

Build increasingly complex **explanations**

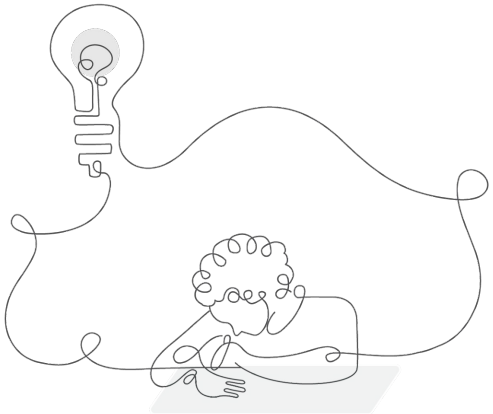
Apply knowledge to solve a different problem

Previewing the unit

Introducing the phenomenon

Amplify Science units are designed around complex phenomena that drive student learning through the unit.

Pay attention to the phenomenon, or observable event, students will figure out in your unit.



Here is how we introduce the phenomenon for this unit.

Grade K | Needs of Plants and Animals

Lesson 1.1: Pre-Unit Assessment

AmplifyScience

15 MIN

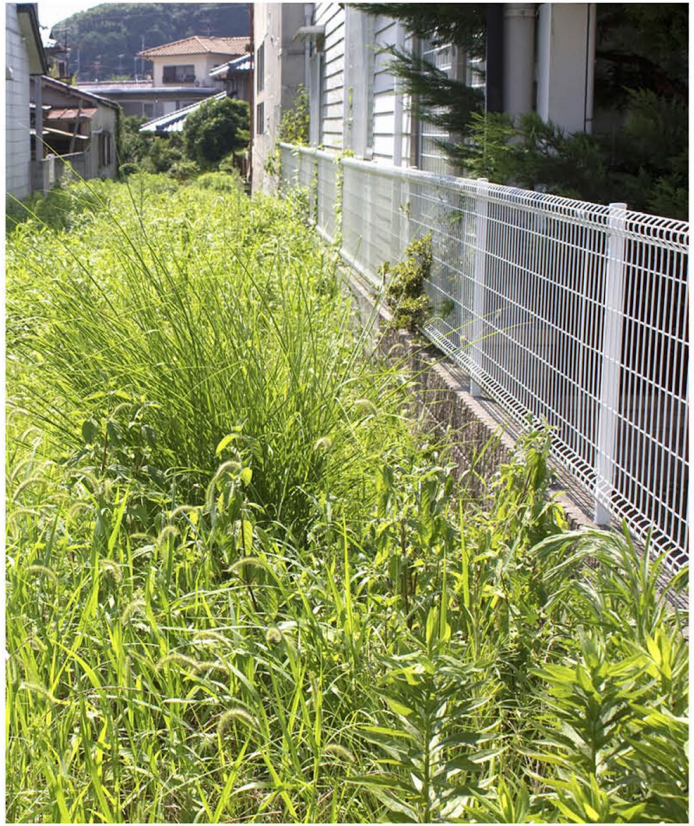
Activity 1

Introducing Students' Role as Scientists

We have an interesting new challenge to take on in science! We have been asked to help a group of children who live in a neighborhood called Mariposa Grove.

Children from Mariposa Grove

The Field



The Garden

The children in Mariposa Grove need our help. They want to know why there are no monarch caterpillars in the Garden and how they can make the Garden into a place where the caterpillars can live again.

Chapter 1 Question

Why are there no monarch caterpillars since the Field was made into the Garden?

We are going to be **scientists**.

In order to help the children, we are going to be scientists and figure out what changed in the Garden, and why the monarchs no longer live there.

Turn and talk to a partner about what you know about **scientists**.

We are going to practice saying the word.
- Say the word after me: *scientist*.
- Now say the word together: *scientist*.
- Now whisper the word *scientist* to your partner.

A scientist is a person who learns about the natural world.

Vocabulary

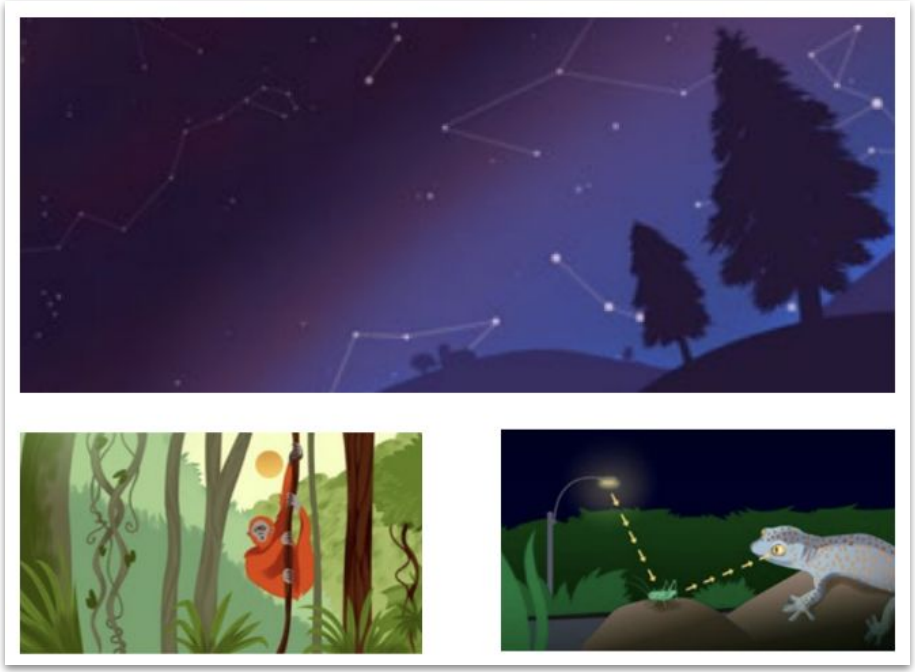
scientist

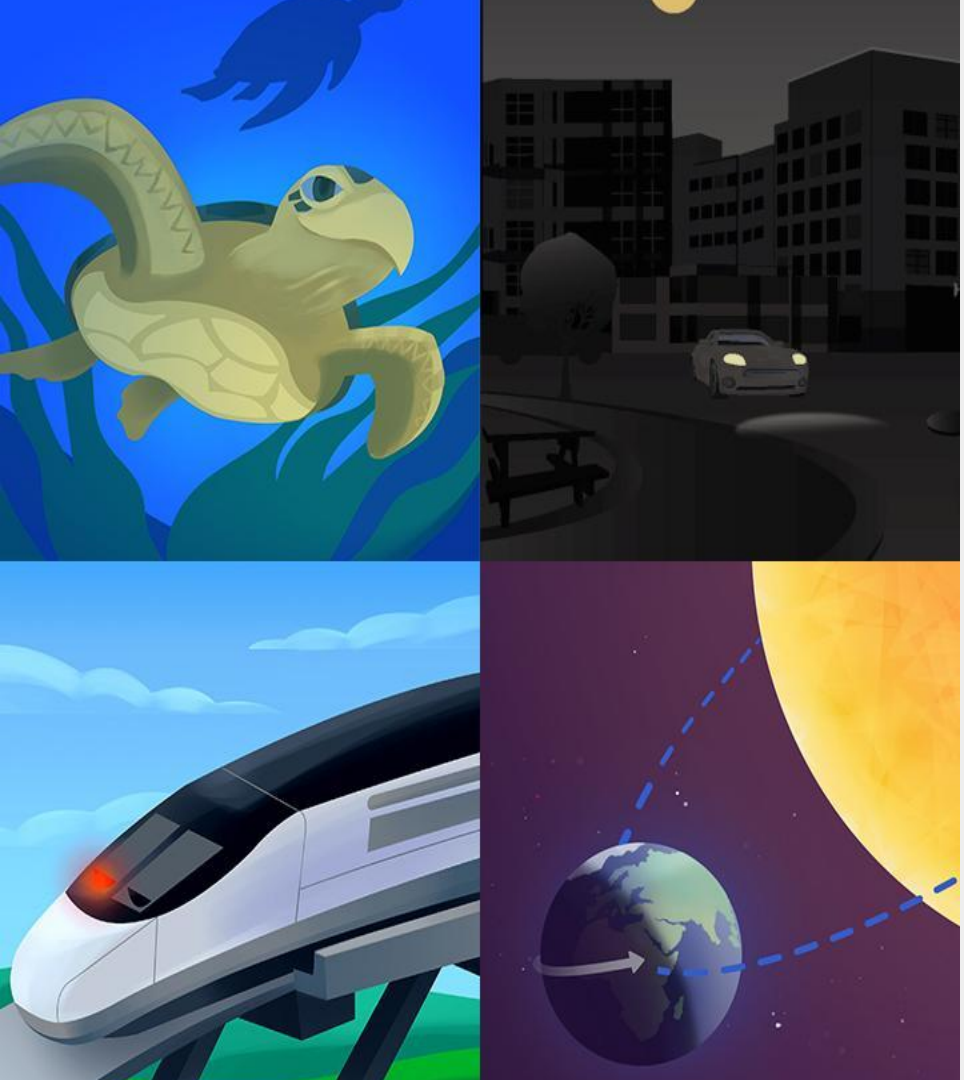
a person who learns about the natural world

Amplify Science

Anchoring phenomenon

- Complex and rich
- Drives learning through a whole unit
- Specific and observable
- Relatable at students' developmental level





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Unit structure

Unit

↓

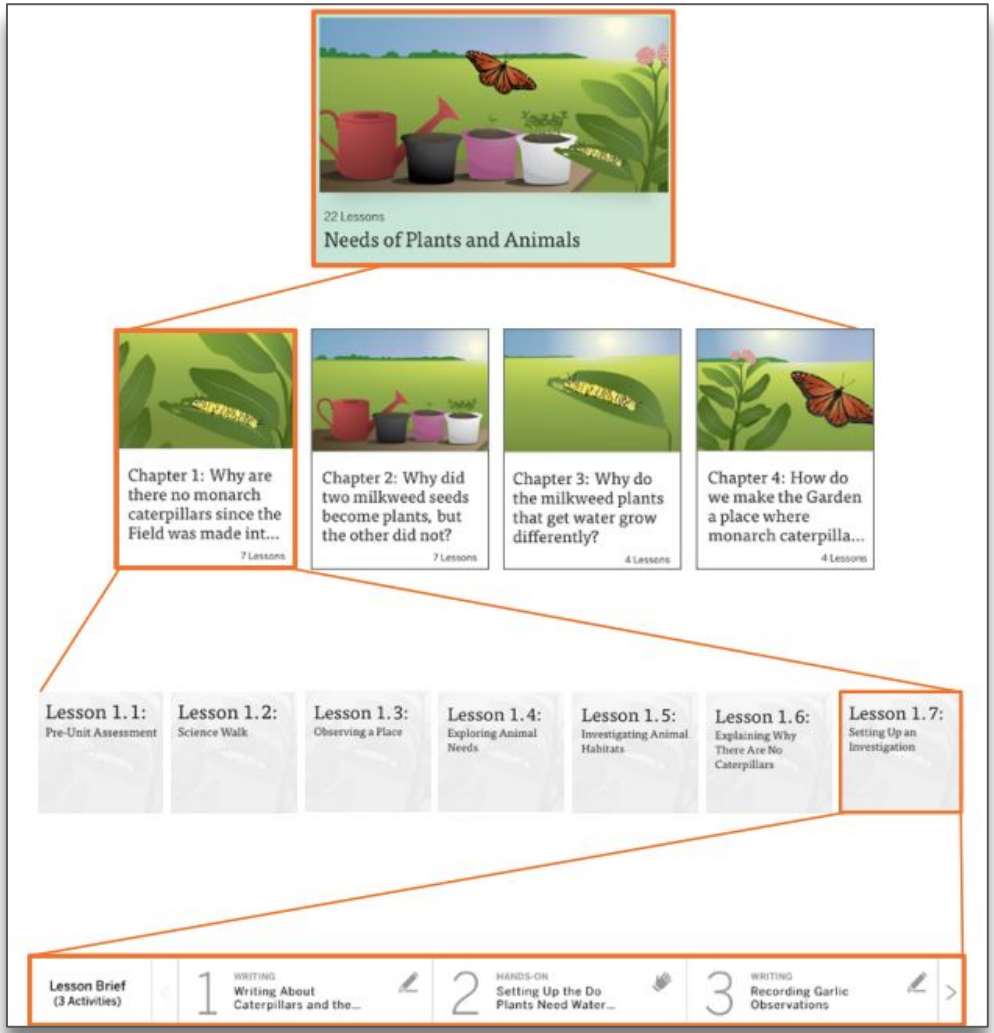
Chapter

↓

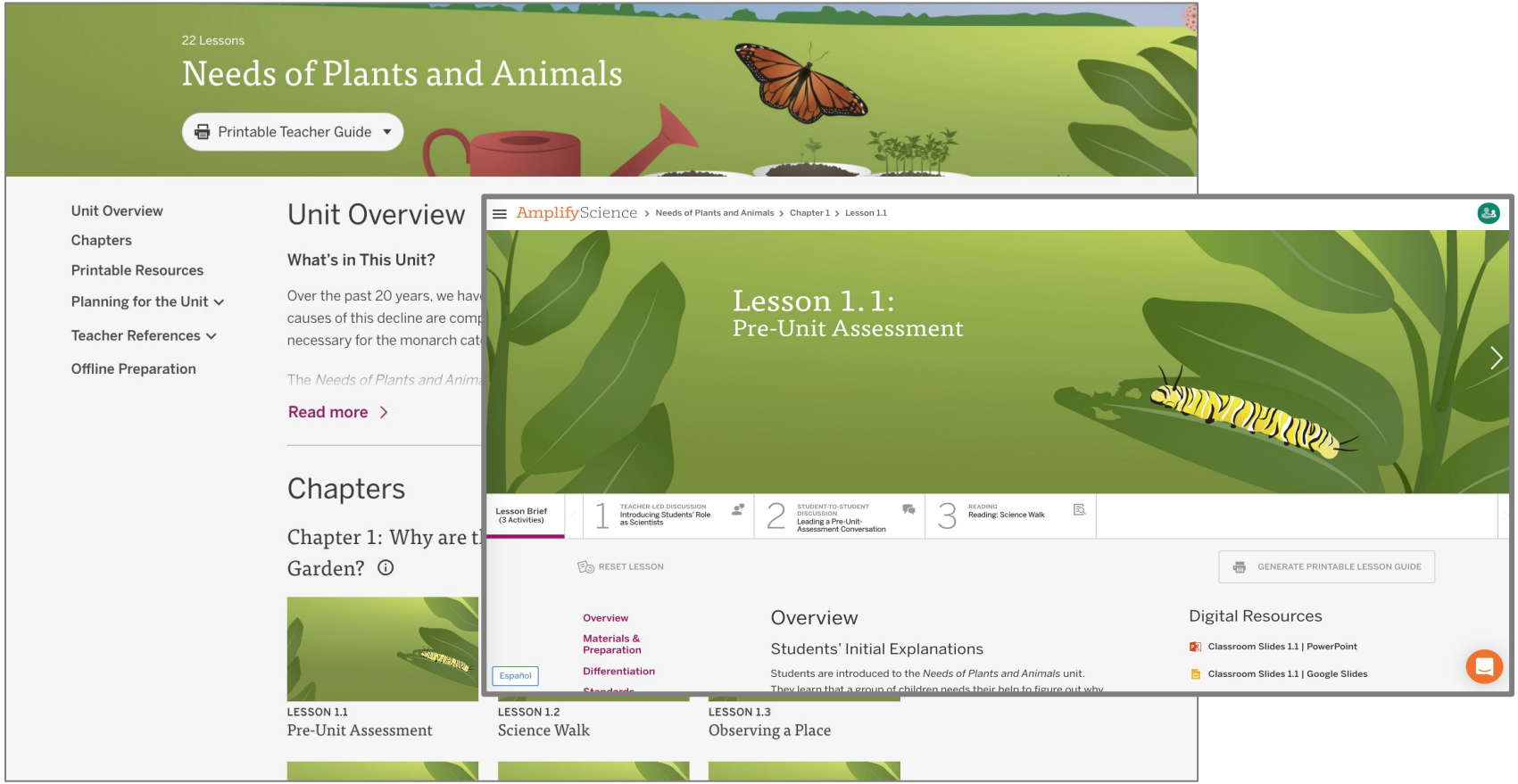
Lesson

↓

Activity



Let's Go Live!


22 Lessons
Needs of Plants and Animals
Printable Teacher Guide
Unit Overview
Chapters
Printable Resources
Planning for the Unit
Teacher References
Offline Preparation
Unit Overview
What's in This Unit?
Over the past 20 years, we hav
causes of this decline are comp
necessary for the monarch cat
The Needs of Plants and Anima
Read more
Chapters
Chapter 1: Why are t
Garden?
LESSON 1.1
Pre-Unit Assessment
LESSON 1.2
Science Walk
LESSON 1.3
Observing a Place
AmplifyScience
Needs of Plants and Animals
Chapter 1
Lesson 1.1
Lesson 1.1:
Pre-Unit Assessment
Lesson Brief
(3 Activities)
1 TEACHER-LED DISCUSSION Introducing Students' Role as Scientists
2 STUDENT-TO-STUDENT DISCUSSION Leading a Pre-Unit-Assessment Conversation
3 READING Reading: Science Walk
RESET LESSON
GENERATE PRINTABLE LESSON GUIDE
Overview
Materials & Preparation
Differentiation
Español
Overview
Students' Initial Explanations
Students are introduced to the Needs of Plants and Animals unit.
Digital Resources
Classroom Slides 1.1 | PowerPoint
Classroom Slides 1.1 | Google Slides

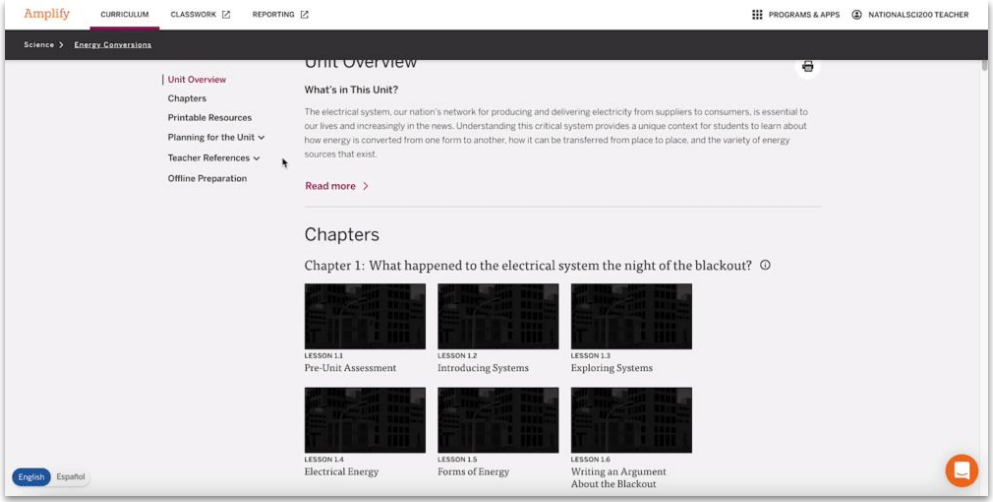
Navigation summary

1. CLICK the caret to select your grade-level.
2. Select your first unit.
    a. You are now on the Unit Landing Page.
3. Expand the **Planning for the unit** menu.
    a. Or scroll down below the lesson buttons.

Unit Level resources

Collection of resources to support planning and day-to-day instruction in the unit:

- Printable Resources
- “Planning for the Unit” documents
- Teacher References



Key Unit Documents for Unit Planning

22 Lessons

Needs of Plants and Animals

Unit Overview
Chapters
Printable Resources
Planning for the
Teacher Referer
Offline Preparat

Unit Overview
Chapters
Printable Resources
Planning for the Unit
Unit Map
Progress Build
Getting Ready to Teach
Materials and Preparat
Science Background
Standards at a Glance
Teacher References
Lesson Overview Compilation
Standards and Goals
3-D Statements
Assessment System
Embedded Formative Assessments
Books in This Unit
Opportunities for Unit Extensions
Offline Preparation

Unit Overview

What's in This Unit?

Printable Resources

- 3-D Assessment Objectives
- Copymaster Compilation
- Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds
- Multi-Language Glossary
- Print Materials (8.5" x 11")
- Coherence Flowcharts
- Crosscutting Concept Tracker
- Investigation Notebook
- NGSS Information for Parents and Guardians
- Print Materials (11" x 17")

Garden?

LESSON 1.1
Pre-Unit Assessment

LESSON 1.2
Science Walk

LESSON 1.3
Observing a Place

Key Unit Documents for Unit Planning

22 Lessons

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Unit Overview
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- Science Background
- Standards at a Glance

Teacher References
- Lesson Overview Compilation
- Standards and Goals
- 3-D Statements
- Assessment System
- Embedded Formative Assessments
- Books in This Unit
- Opportunities for Unit Extensions

Offline Preparation

Unit Overview

What's in This Unit?

Over the past 20 years, we have witnessed a steady decline in the population of monarch butterflies in North America. Though the causes of this decline are complex, it appears to be connected to the decrease in the number of milkweed plants, which are necessary for the monarch caterpillars to eat in order to grow into butterflies.

The *Needs of Plants and Animals* unit examines the problem of the declining monarch population on a smaller scale. Students

Read more >

Chapters

Chapter 1: Why are there no monarch caterpillars since the Field was made into the Garden?

LESSON 1.1
Pre-Unit Assessment

LESSON 1.2
Science Walk

LESSON 1.3
Observing a Place

Core Unit Planning & Internalization

Unit Title: 1

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in your unit? 2	Student Role: 3
Unit Question: 4	Relationship between the Unit Phenomenon and Unit Question: 5
By the end of the unit, students figure out... 6	
How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit? 7	

1

Unit Guide resources:
- Unit Overview
- Unit Map
- Coherence Flowchart

Unit Guide resources:
- Lesson Overview Compilation
- Unit Overview

Unit Guide resources:
- Unit Map

Unit Guide resources:
- 3D Statements at the Unit Level

Core Unit Planning & Internalization

Unit Title: Needs of Plants and Animals (1)

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
How can the kids in Mariposa Grove attract monarch caterpillars to their neighborhood? (2)	Scientists (3)
Unit Question:	**Relationship between the Unit Phenomenon and Unit Question:**
What do living things need to live and grow? (4)	Monarchs cannot live in a place that does not have the food they need.. The problem enables students to develop an understanding of what plants and animals need to survive. (5)

By the end of the unit, students figure out...

Monarch caterpillars must eat milkweed plants as they grow into monarch butterflies. Sometimes when humans grow food, they get rid of certain plants, which might be food for other animals. This is what happened in the garden. (6)

How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit?

Students carry out investigations to determine what plants and animals need to live and grow (systems and system models) in order to help a group of kids from the fictional town of Mariposa Grove solve the problem of why there are no longer monarch caterpillars living in a garden in their neighborhood (cause and effect) (7)

Unit Guide resources:
- Unit Overview
- Unit Map
- Coherence Flowchart

Unit Guide resources:
- Lesson Overview Compilation
- Unit Overview

Unit Guide resources:
- Unit Map

Unit Guide resources:
- 3D Statements at the Unit Level

Core Unit Planning & Internalization

Unit Title: Needs of Plants and Animals

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
How can the kids in Mariposa Grove attract monarch caterpillars to their neighborhood?	Scientists
Unit Question:	**Relationship between the Unit Phenomenon and Unit Question:**
What do living things need to live and grow?	Monarchs cannot live in a place that does not have the food they need. The problem enables students to develop an understanding of what plants and animals need to survive.

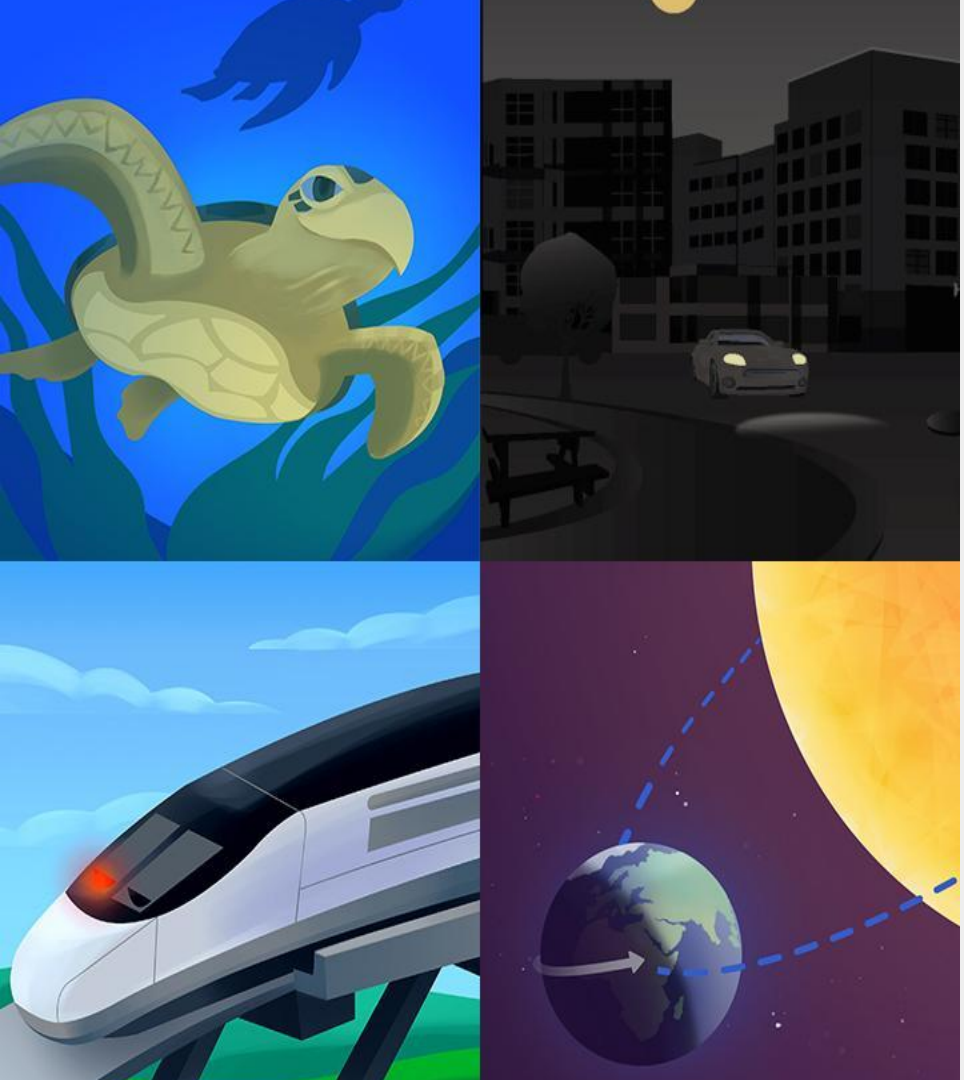
By the end of the unit, students figure out...

Monarch caterpillars must eat milkweed plants as they grow into monarch butterflies. Sometimes when humans grow food, they get rid of certain plants, which might be food for other animals. This is what happened in the garden.

How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit?

Students carry out investigations to determine what plants and animals need to live and grow (systems and system models) in order to help a group of kids from the fictional town of Mariposa Grove solve the problem of why there are no longer monarch caterpillars living in a garden in their neighborhood (cause and effect)

Questions?



Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing

Additional resources

Welcome, caregivers!

We hope you enjoy learning more about Amplify Science and what students are learning in science this year.

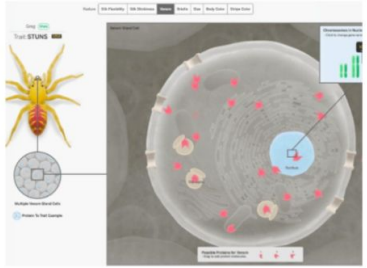
Para acceder a este sitio en español haga clic aquí.

Amplify welcomes you and your learner to the Science program for the new school year. We are very excited to provide you with exceptional learning opportunities through Science. Below are resources and helpful guides for enabling your student to have the most productive experience with our platform throughout the year.

Contact Us

TOP RATED BY EDREPORTS

Grades 6-8



Caregivers

LAUSD Microsite- https://amplify.com/lausd-science

Welcome to Amplify Science!

—

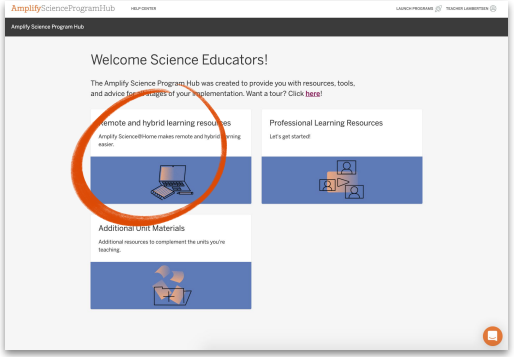
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

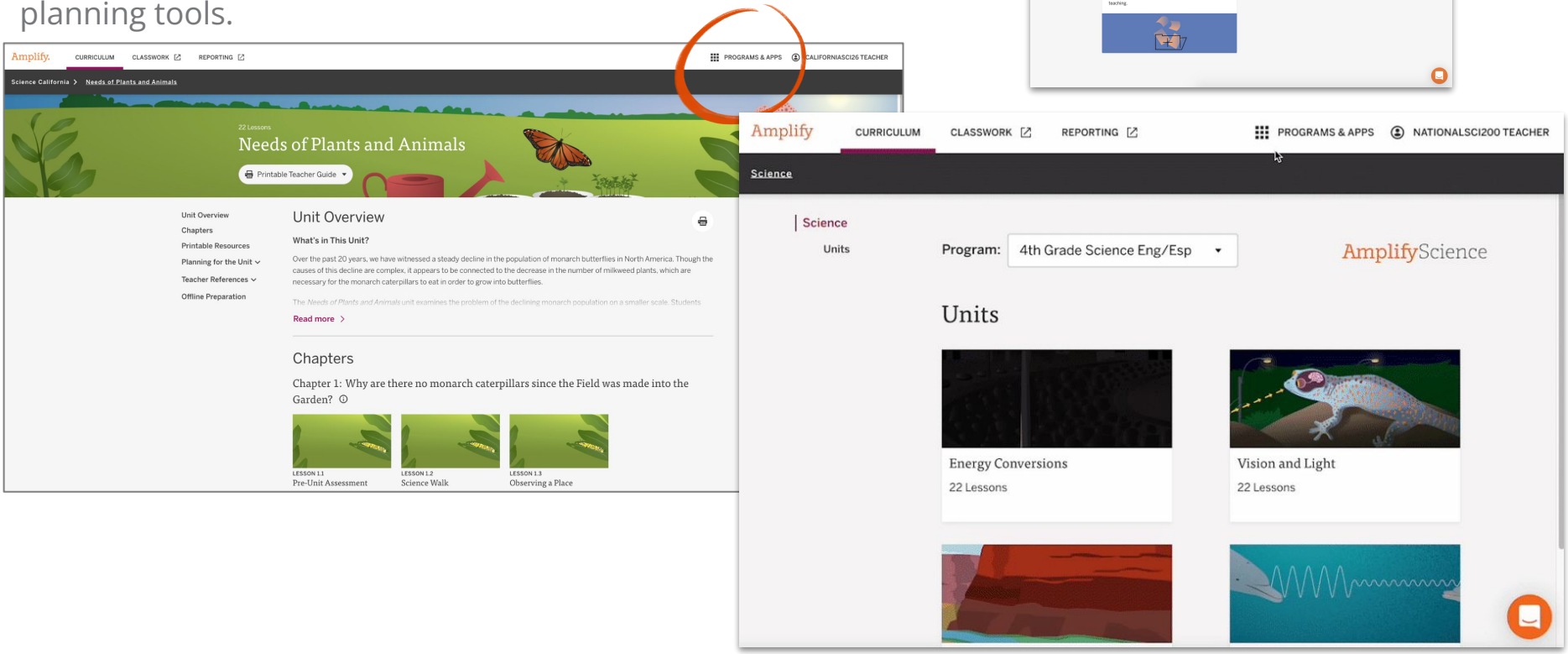
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
- Instructional guidance for a Responsive Relaunch of Amplify Science in 21-22

Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Program Hub

Use the Amplify Science Program Hub to find useful resources for implementing Amplify Science, including unit overview videos and planning tools.

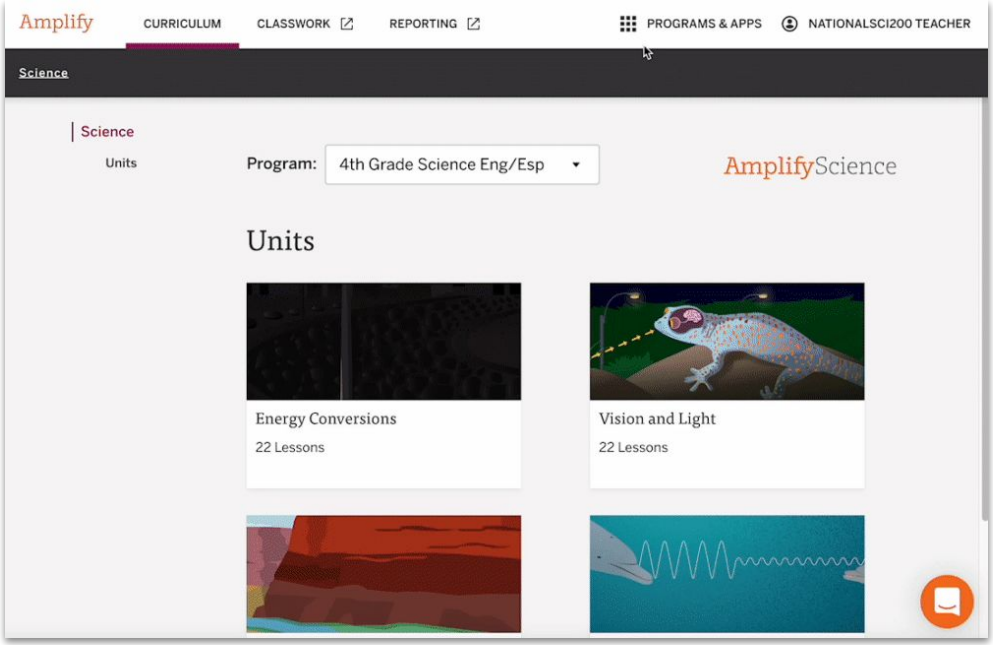


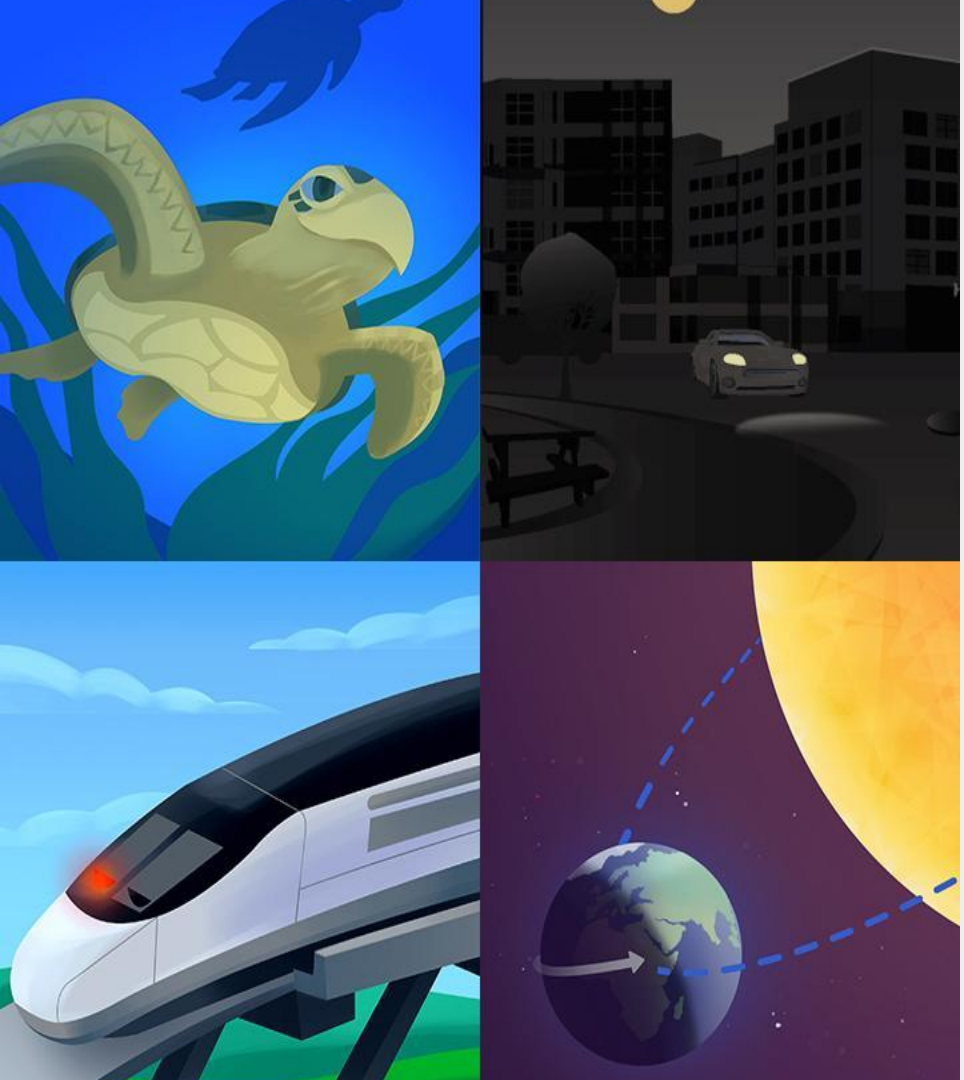


Explore the Program Hub

Familiarize yourself with the Program Hub.

Be ready to share one resource you've found that you'll use while planning and teaching.





Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing

Overarching goals

- ✓ Explain how students engage in phenomenon based and 3D learning to construct an understanding of the science concepts introduced in the unit
- ✓ Internalize the unit and apply your new understanding to plan for the diverse needs of your classroom and students

Closing reflection

Based on our work in Part 1, share:

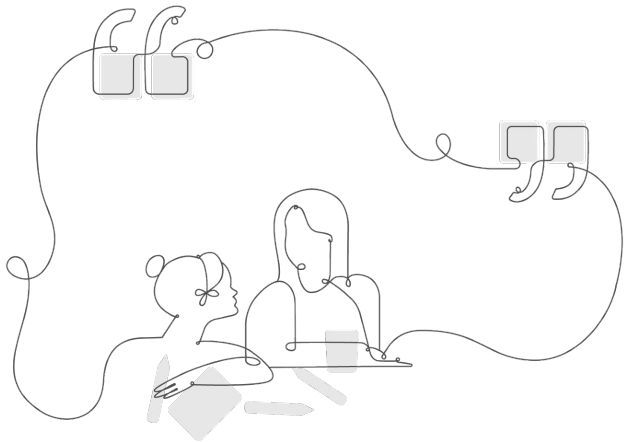
Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

Onsite Upcoming Professional Development!

Part 3: Unit 1 - Supporting English Learners



- October 15th (Alta California ES, NW)
- October 29th (Ochoa Learning Center, East)

In this session, participants explore strategies to support English learners' ability to do, talk, read, write, visualize, and construct arguments like scientists. Participants will identify the supports and strategies embedded in Unit 1 by engaging in model activities followed by independent planning.

Additional resources and ongoing support

Customer Care

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-10PM EST and weekends 10AM-6PM EST.

help@amplify.com

800-823-1969

Amplify Chat

Please provide feedback!

Type:

Strengthen

Session title:

Unit Internalization / Guided Planning

(Part 1)

Professional Learning Specialist name:

Insert name

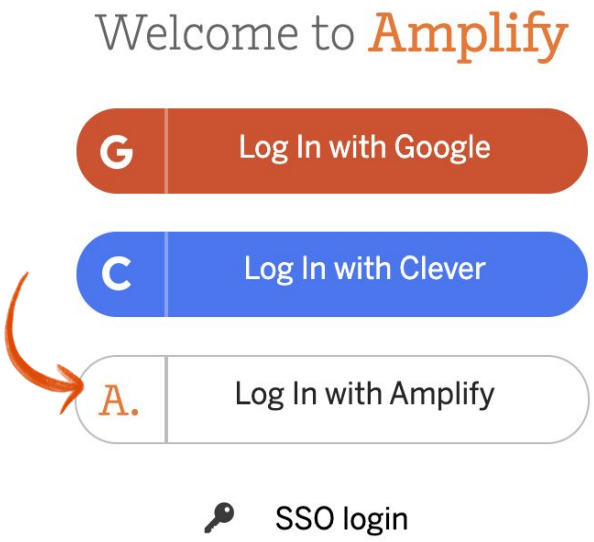
(insert email, if you would like)

Welcome to Amplify Science!

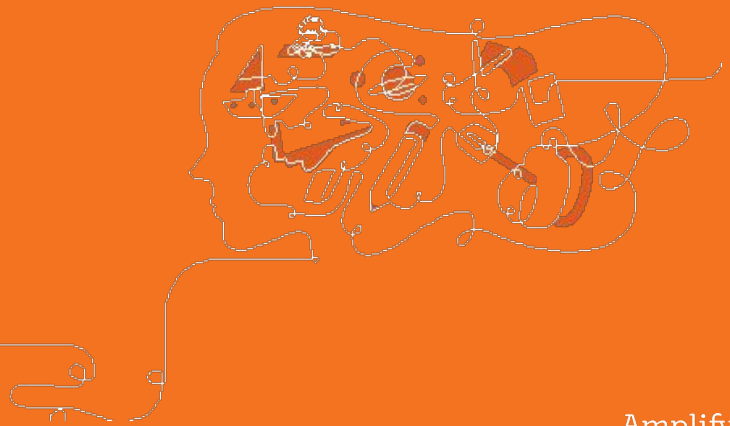
Do Now: Log in through your Schoology account

or use Demo Account

1. Go to **learning.amplify.com**
2. Select **Log in with Amplify**
3. If you're already logged in with other Google accounts, click **Use another account**
4. Enter teacher demo account credentials
   - UN: californiasci60@pd.tryamplify.net
   - PW: AmplifyNumber1
5. Explore as we wait to begin



Part 2:
Guided Lesson Planning



Amplify Science

Unit Internalization / Guided Planning

Grade K, Unit 1: Needs of Plants and Animals

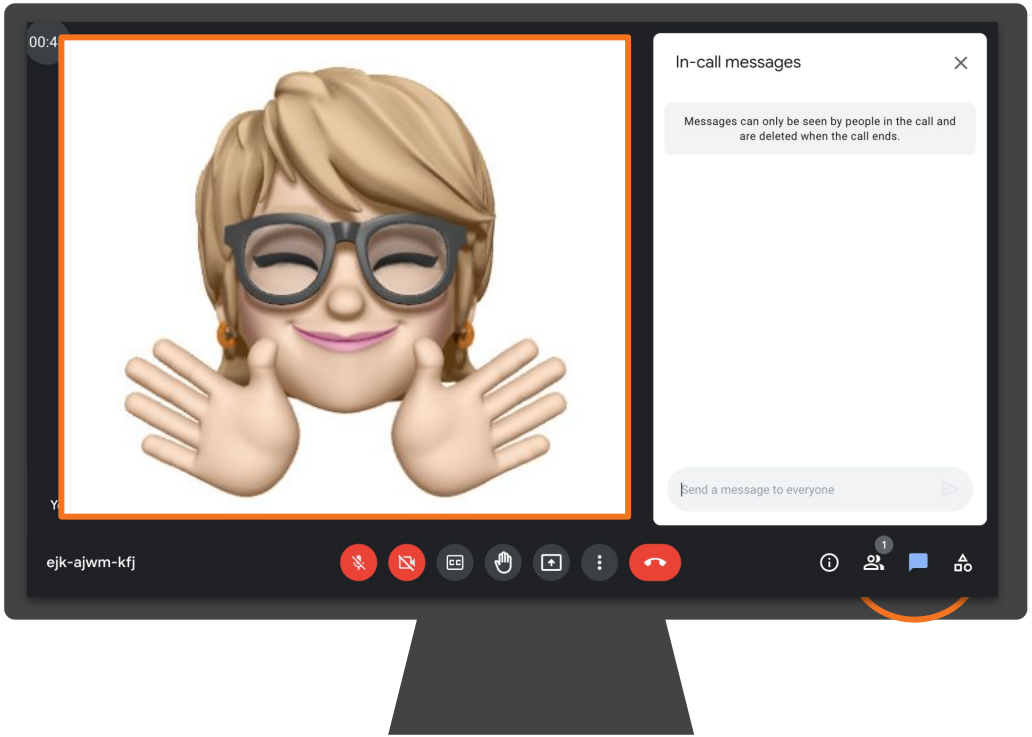
Part 2

School/District Name: LAUSD
Date: September, 2022
Presented by: Jolene Hori

Ice Breaker!

Who do we have in the room today?

- **Question 1:** Which aspects of implementing the Amplify Science standard curriculum has been the most successful?
- **Question 2:** Which aspects have been the most challenging?



Amplify's Purpose Statement

Dear teachers,

You do a job that is nearly impossible and **utterly essential**.

We are in your corner – extending your reach, saving you time, and enhancing your understanding of each student.

Thank you for working with us to craft rigorous and riveting learning experiences for your classroom.

We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

Sincerely,
Amplify

Norms: Establishing a culture of learners

- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

Schoology

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LOS ANGELES UNIFIED SCHOOL DISTRICT

LMS App Center

The LMS App Center provides a catalog of District-approved digital content and learning tools (including digital components of adopted textbooks) that are available for classroom teachers and students to access within the learning management system, Schoology.

For information on District-approval policies and procedures, please visit: udipp.lausd.net.

- To search the full list of digital learning tools, click "**Submit**".
- To search by Publisher Name or Textbook Title, type in a word associated to your adopted publisher, then click "**Submit**".
- To narrow your search with filters such as Content Area, Grade Level, or Content Type, select from the dropdown menu, then click "**Submit**".

To learn more about using the LMS App Center, please refer to the following video overview.

About Los Angeles Unified | Find a School ‹ | Offices ‹ | Classic View | Families | Employees

LOS ANGELES UNIFIED SCHOOL DISTRICT

COURSES | GROUPS | RESOURCES | TOOLS

← Back to Schoology Home Page

LMS App Center

The LMS App Center provides a catalog of District-approved digital content and learning tools (including digital components of adopted textbooks) tha
are available for classroom teachers and students to access within the learnin

For information on District-approval policies and procedures, please visit: udi

- To search the full list of digital learning tools, click "**Submit**".
- To search by Publisher Name or Textbook Title, type in a word associated to your adopted publisher, then click "**Submit**".
- To narrow your search with filters such as Content Area, Grade Level, or Content Type, select from the dropdown menu, then click "**Submit**".

To learn more about using the LMS App Center, please refer to the fo

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Grade Level	All	
Content Type	All	
Textbook Title	Starts With	

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Content Area: ELA
Grade Level: ES
Content Type: Supplemental
Integration Type: App (Left Navigation)
Purchase Type: District and School
Getting Started Guide
Other Info: School licenses required
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Amplify Science

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S: amplify.com/support/
Textbook Title(s):
NA

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Reading K-5 | Science | Vocabulary

Join Amplify Science Schoology Group

To join Amplify Science Schoology ES Group: W4PK-W466-63F5B

Navigation Temperature Check

Rate yourself on your comfort level accessing Amplify Science materials and navigating a digital curriculum.

1 = Extremely Uncomfortable

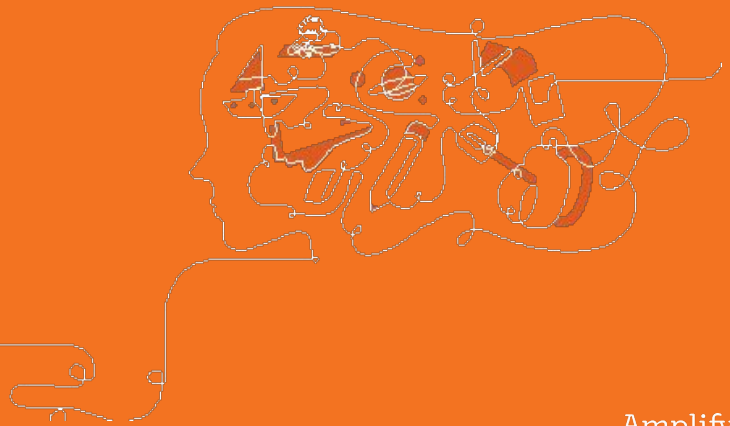
2 = Uncomfortable

3 = Mild

4 = Comfortable

5 = Extremely Comfortable

Part 2:
Guided Lesson Planning



Overarching goals

By the end of this workshop, you will be able to:

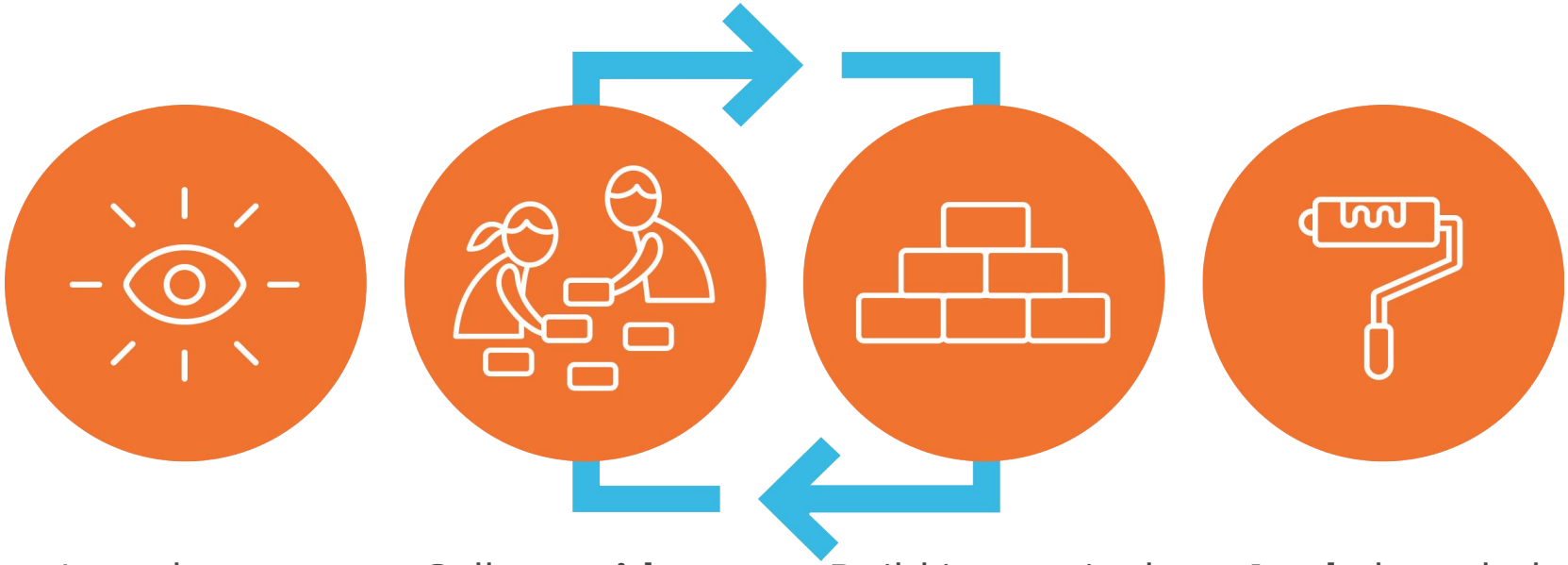
- ❑ Describe what teaching and learning look like in Amplify Science.
- ❑ Prepare to teach using Amplify Science resources.

Gr. 1 LAUSD New Teacher Part 2:
Unit 1, Animal and Plant Defenses

Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

Amplify Science Approach



Introduce a **phenomenon** and a related problem

Collect **evidence** from multiple sources

Build increasingly complex **explanations**

Apply knowledge to solve a different problem

Needs of Plants and Animals

What do living things need to live and grow?

Students figure out that monarch caterpillars feed on milkweed plants, and then investigate what milkweed plants need to grow.
Students also examine the ways that humans change their environment in order to meet their needs and explore how people can choose to share the places they live with other living things

Needs of Plants and Animals

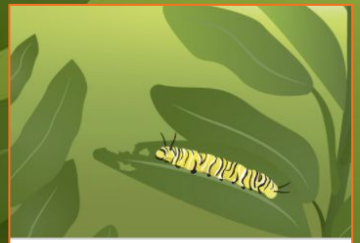
Problem:

How can the kids in Mariposa Grove attract monarch caterpillars to their neighborhood?

Role: Scientist

Students assume the role of scientists helping a group of children from the fictional community of Mariposa Grove to explain why there are no more caterpillars in a community garden that was converted from a field which once had caterpillars; students also advise the children on what they can do to attract the monarchs.

Coherent storylines

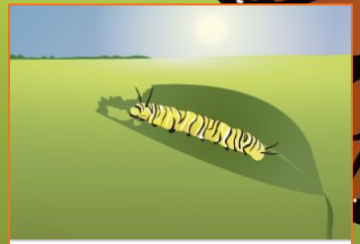


Chapter 1: Why are there no monarch caterpillars since the Field was made int...

7 Lessons

Chapter 2: Why did two milkweed seeds become plants, but the other did not?

7 Lessons



Chapter 3: Why do the milkweed plants that get water grow differently?

4 Lessons

Chapter 4: How do we make the Garden a place where monarch caterpilla...

4 Lessons

AmplifyScience

Explaining the phenomenon: Science Concepts

What **science concepts** do you think students need to understand in order to **explain the phenomenon?**

Progress Build

Needs of Plants and Animals

Foundational knowledge: Animals can only live in a place that has the food they need.

Level 1

Growth is increasing in size or having new parts.

Level 2

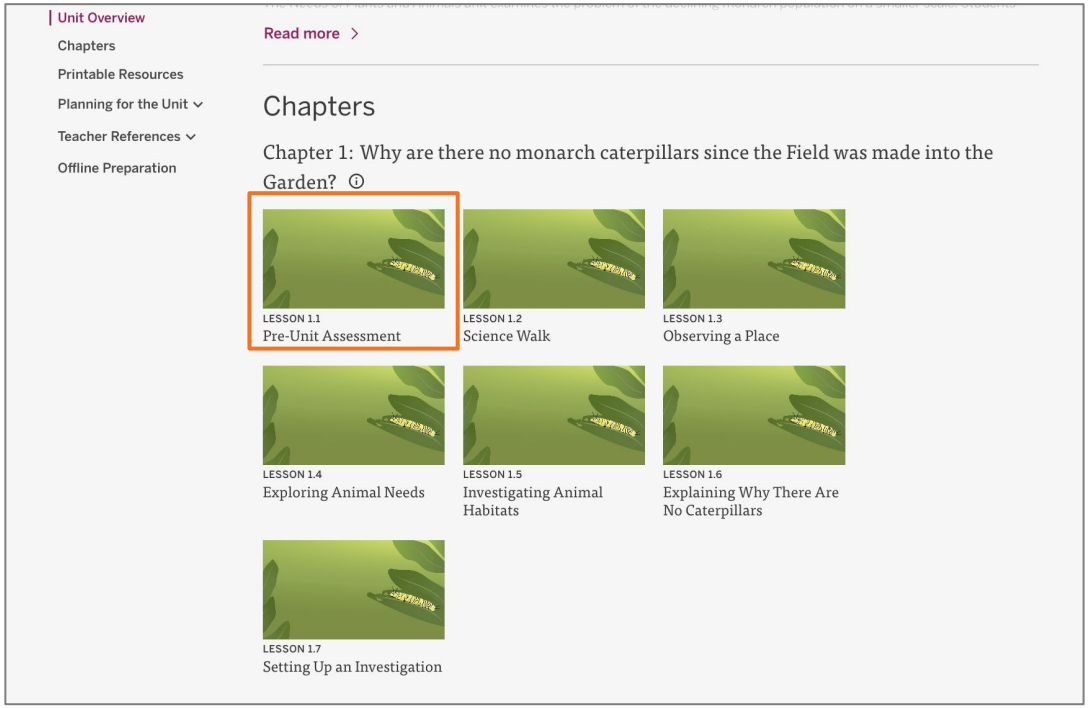
Plants need to get water with their roots.

Level 3

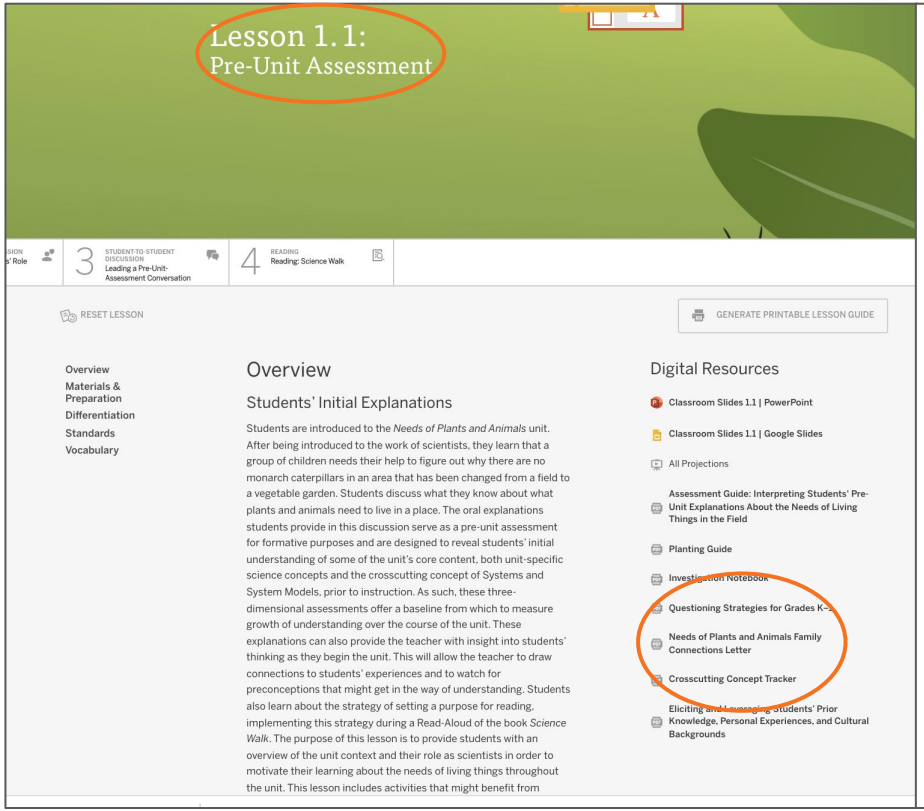
Plants also need to get light with their leaves.

Beginning the Unit

The first lesson of every Unit is a pre-unit assessment.



Needs of Plants and Animals Family Connection



Needs of Plants and Animals
Family Connections Letter

Dear Families,

In science class, we are working as scientists to figure out why there are no more monarch caterpillars in a community garden. We'll be working to answer the question, *What do living things need to live and grow?*

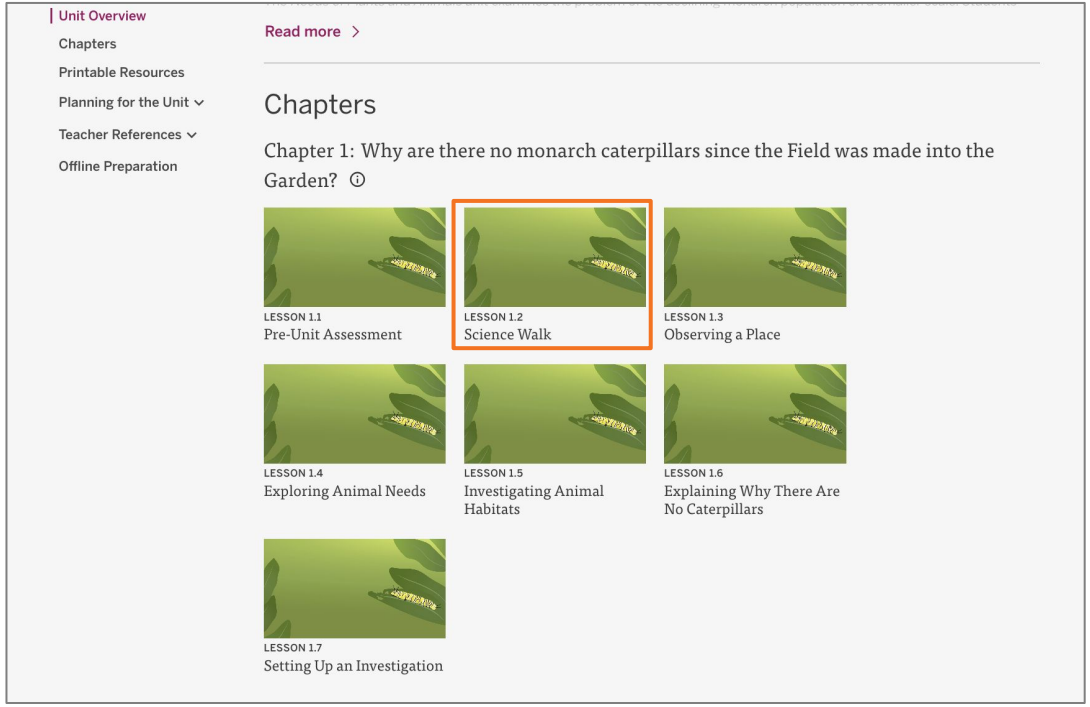
Sharing some of your own ideas, connections, expertise, or stories related to what we will be learning about can help prepare students for their work in science class. It can help students see that what we study in science is connected to their lives, families, and communities.

Use the following questions to think about your personal connections to students' science learning, then share them with your student.

- What does our work in science make you think of?
- Do you have any memories, stories, or experiences about something related to what we will be investigating?
- What have you heard or learned about these topics?
- What do you wonder?

Beginning the Unit

Model lesson 1.2



5 MIN

Activity 1

Introduction to Observing

Chapter 1 Question

Why are there no monarch caterpillars since the Field was made into the Garden?

Needs of Plants and Animals Classroom Wall

Unit Question
What do living things need to live and grow?

Chapter 1 Question
Why are there no monarch caterpillars since the Field was made into the Garden?

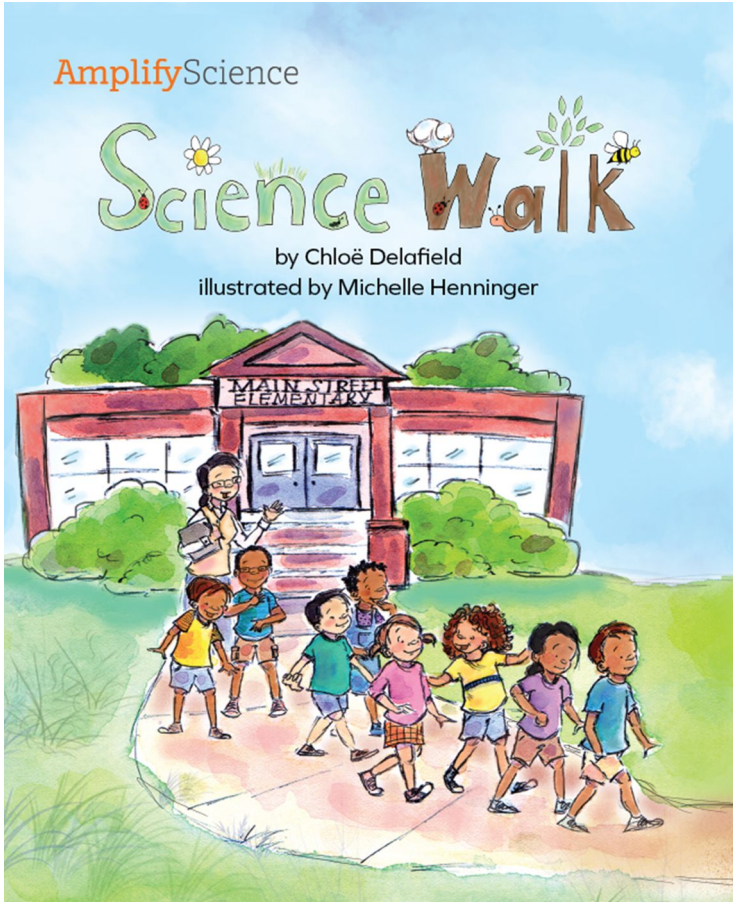
Key Concepts

Vocabulary

scientist

The Field

The Garden



What are some of the **ways the students learned** about the place by their school?

Vocabulary

observe

to use any of the five senses to learn more about something

Needs of Plants and Animals Classroom Wall

Unit Question
What do living things need to live and grow?

Chapter 1 Question
Why are there no monarch caterpillars since the Field was made into the Garden?

Key Concepts

Vocabulary

scientist

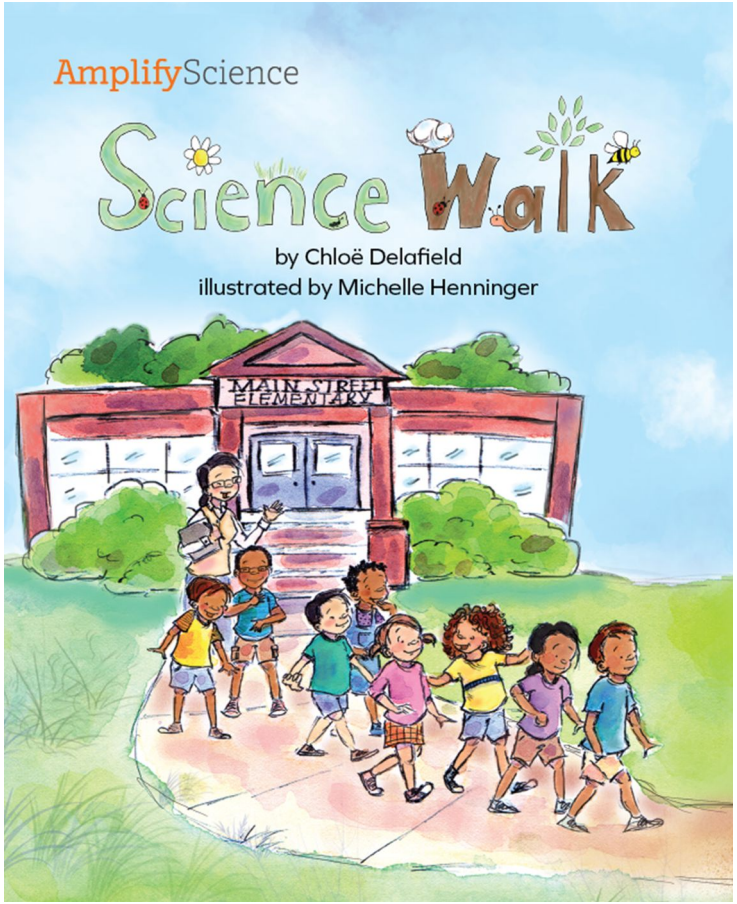
observe

Our Science Tool Kit

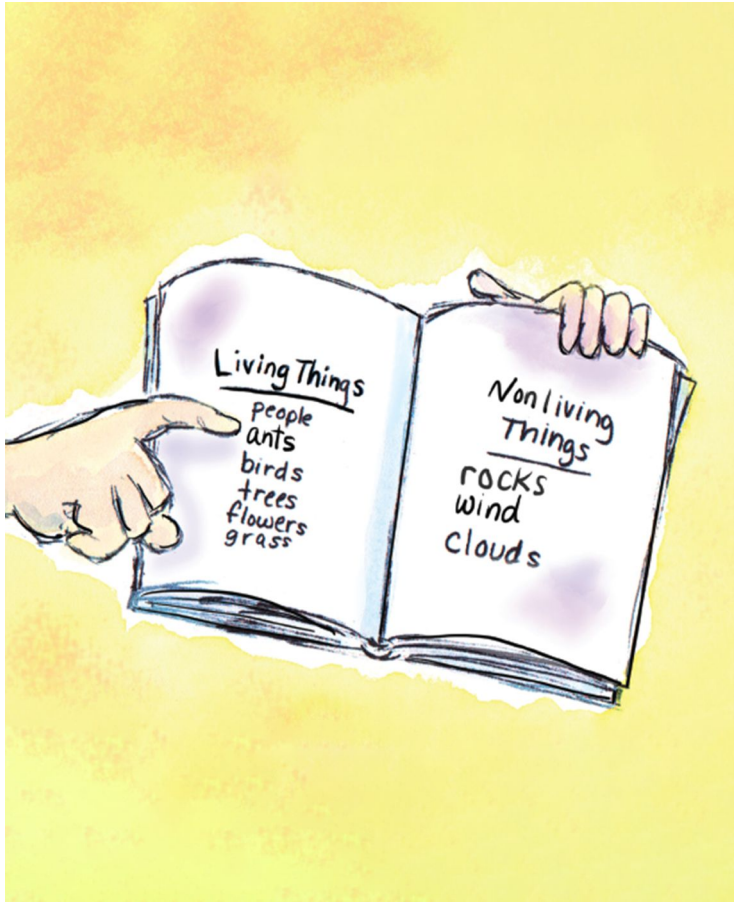
15 MIN

Activity 2

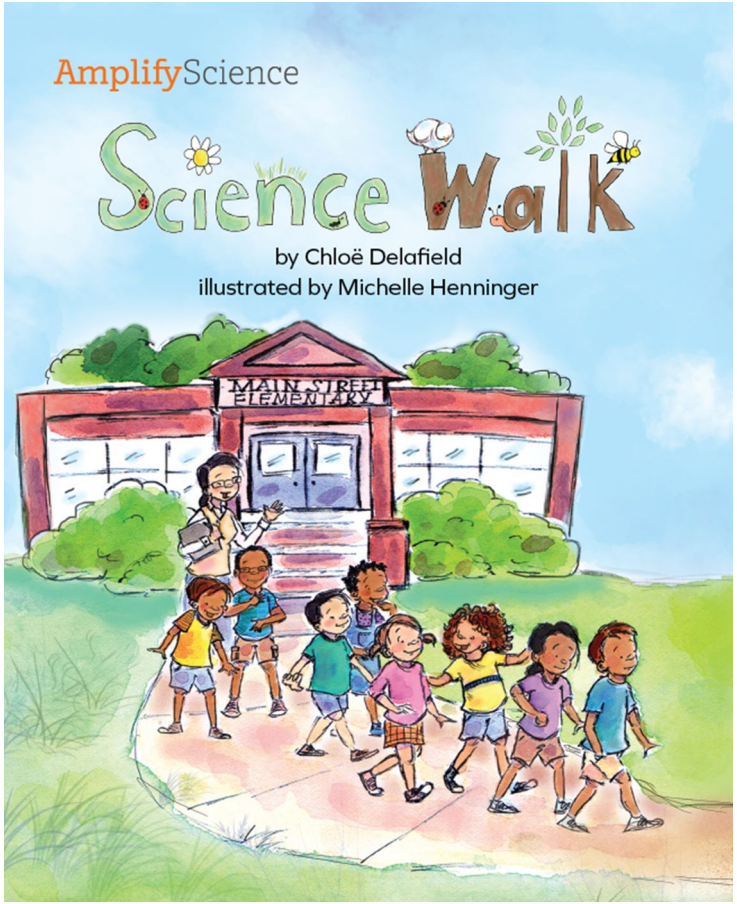
Partner Reading: Science Walk



Remember, readers **set a purpose** before reading.



One thing scientists do is **sort things into groups**.



Our purpose for reading is to look for **living things**.

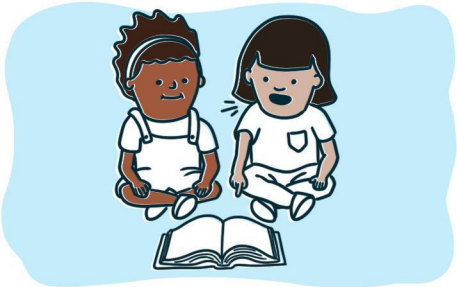
Partner Reading

1.

Sit **next to** your partner.

2.

Put the **book between** you.



3.

Take turns reading and listening.

10 MIN

Activity 3

Comparing Living and Nonliving Things

We will work as a class to sort these cards into **living and nonliving** things.

Living

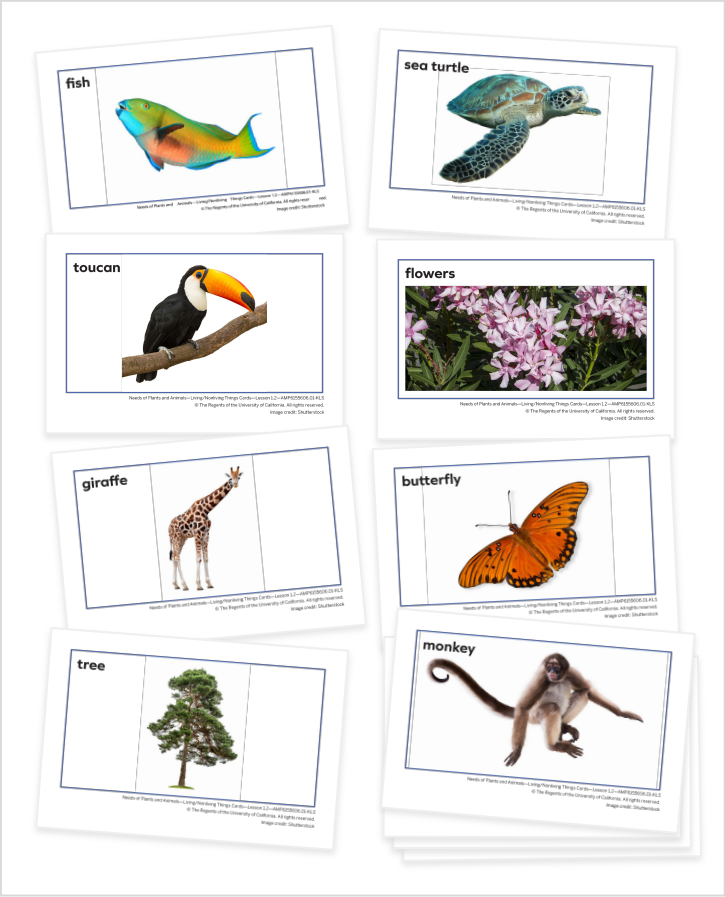
Nonliving

Does anything surprise you about the way these things are grouped?

15 MIN

Activity 4

Discussing Plants and Animals



Let’s focus on **living things**. We will sort the blue living things cards in a different way.

Sorting Living Things

1.

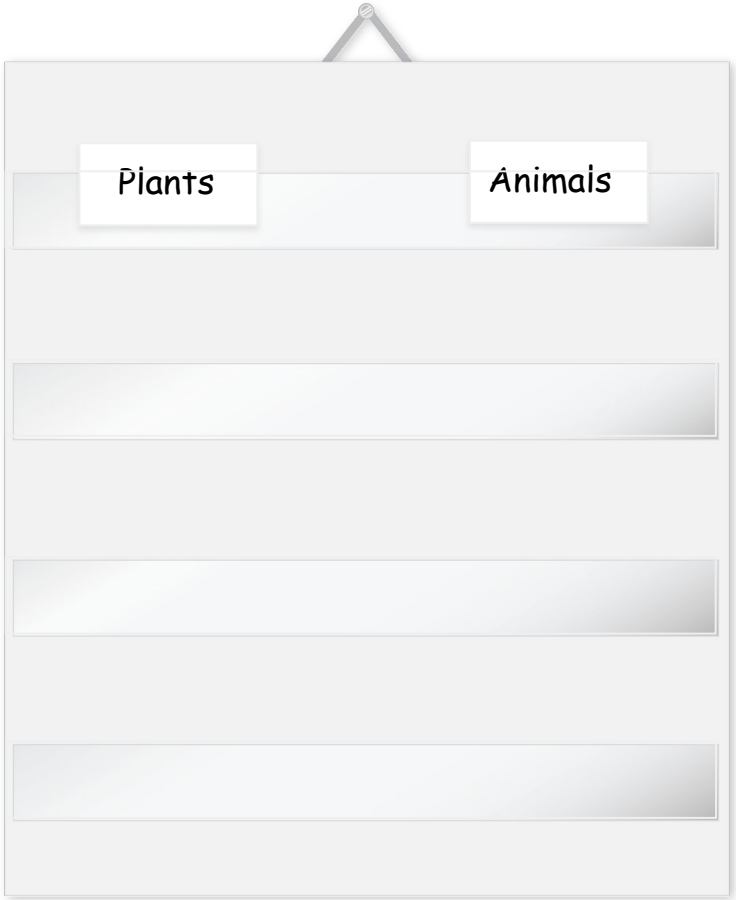
Spread out the cards.

2.

Make groups of cards.

3.

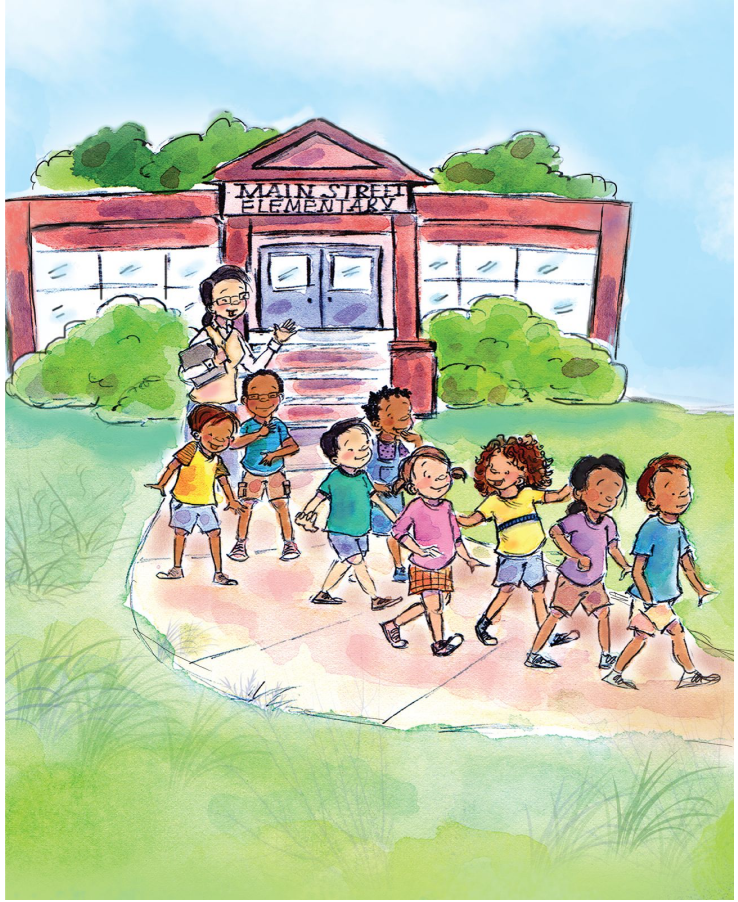
Take turns.



We are going to sort our **living things** into different groups.

What do you notice about the things in the **plant** group?

What do you notice about the things in the **animal** group?



In the next lesson, we will **go on a walk** and observe the things near our school!

End of Lesson

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

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Gr. 1 LAUSD New Teacher Part 2:
Unit 1, Animal and Plant Defenses

Plan for the day: Part 2

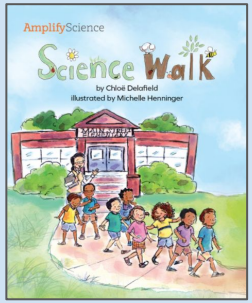
- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

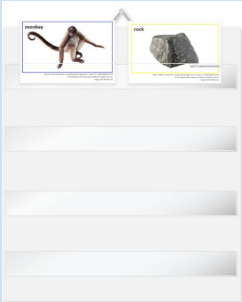
Gathering evidence

Needs of Plants and Animals Lesson 1.2

Chapter Question: Why are there no monarch caterpillars since the Field was made into the Garden?

Investigation Question: (none)



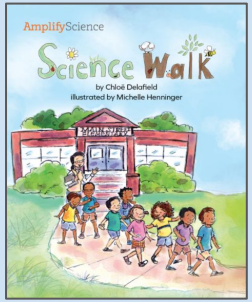


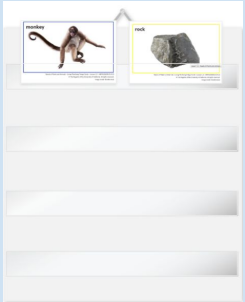
Evidence sources work together

Reading *Science Walk* and Sorting Living and Nonliving things

How do these activities **work together** to support understanding of why are there no monarch caterpillars since the field made into a garden?

Chapter Question: Why are there no monarch caterpillars since the Field was made into the Garden?



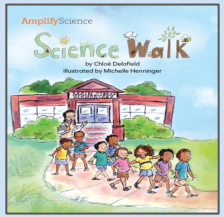


Gathering evidence

Needs of Plants and Animals Lesson 1.2

Chapter Question: Why are there no monarch caterpillars since the Field was made into the Garden?

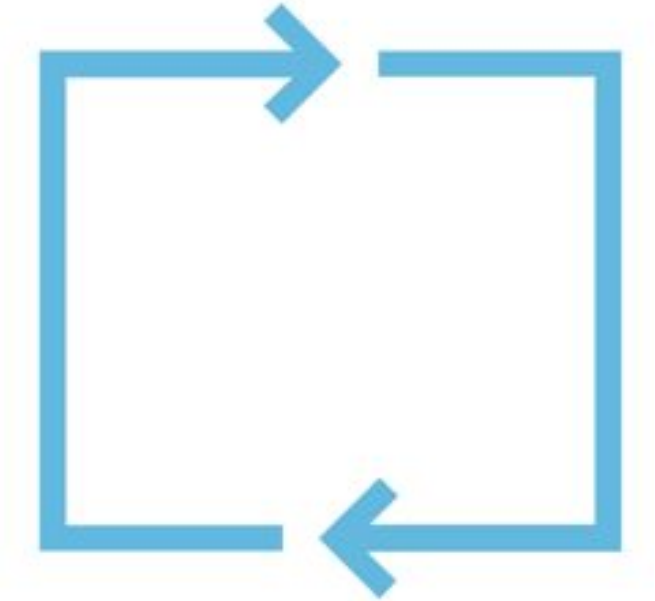
Investigation Question: (none)



What have students figured out so far?

Multimodal learning

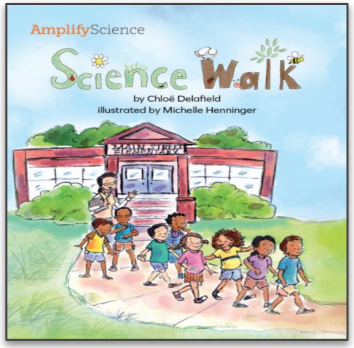
Gathering evidence over multiple lessons

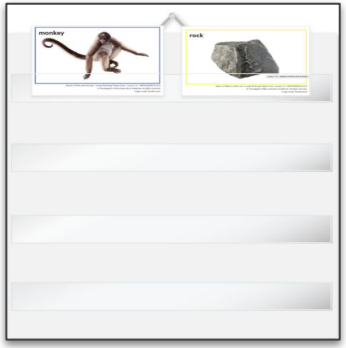


Do,
Talk,
Read,
Write,
Visualize

Evidence sources work together

Teacher tip: Every evidence source plays an important role in student learning. Be sure to teach every activity in order!





Coherence Flowchart

A diagram of student learning

Phenomenon
(Chapter Question)

↓

Investigation Question

↓

Multiple sources of evidence

↓

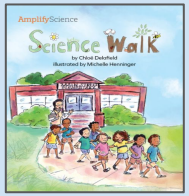
Key concepts

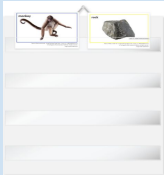
Chapter Question: Why are there no monarch caterpillars since the Field was made into the Garden?

↓

Investigation Question: (none)

↓





Coherence Flowchart

Needs of Plants and Animals Lesson 1.2-1.3

Chapter Question: Why are there no monarch caterpillars since the Field was made into the Garden?

↓

Investigation Question: (none)

↓

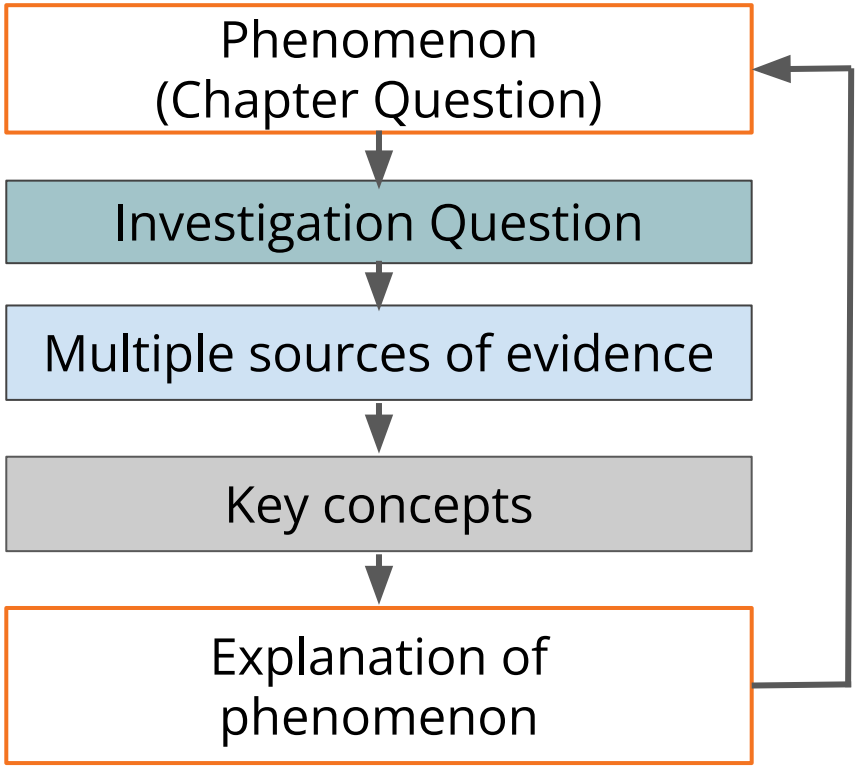
Evidence: Read *Science Walk* (1.1, 1.2)
Evidence: Sort cards to compare living and nonliving things (1.2)
Evidence: Observe living things around the school (1.3)

↓

Key concept: Different kinds of plants and animals live in a place. (1.3)

Coherence Flowchart

A diagram of student learning



Coherence Flowchart

Needs of Plants and Animals Lesson 1.2-1.3

Chapter Question: Why are there no monarch caterpillars since the Field was made into the Garden?

↓

Investigation Question: (none)

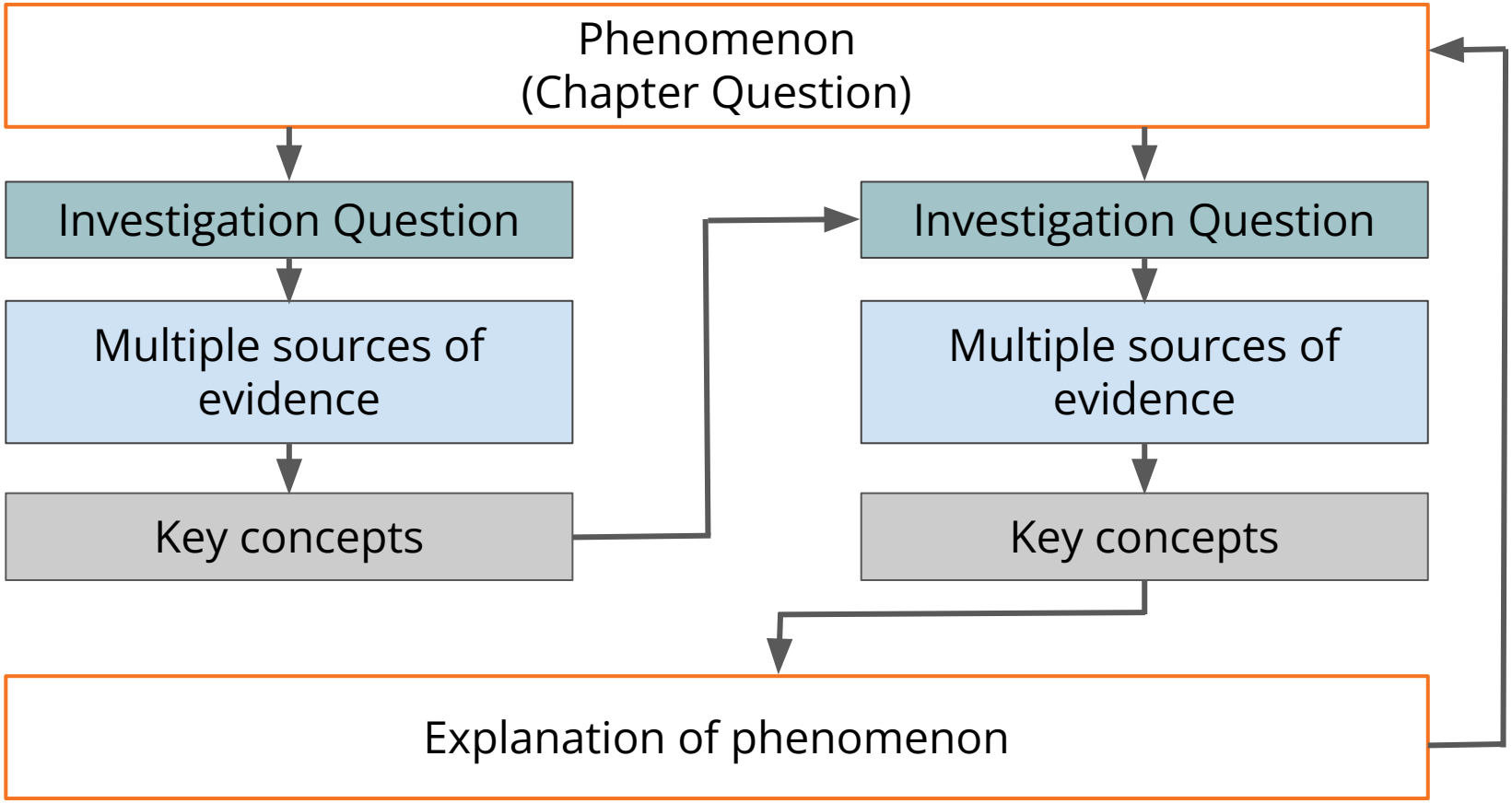
↓

Evidence: Read *Science Walk* (1.1, 1.2)
Evidence: Sort cards to compare living and nonliving things (1.2)
Evidence: Observe living things around the school (1.3)

↓

Key concept: Different kinds of plants and animals live in a place. (1.3)

Coherence Flowchart



Needs of Plants and Animals: Milkweed and Monarchs

Unit Anchor Phenomenon

Problem students work to solve

There are no monarch caterpillars in the Mariposa Grove community garden since a vegetable garden was planted.
How can the kids in Mariposa Grove attract monarch caterpillars to their neighborhood?

Chapter-level Anchor Phenomenon
Chapter 1 Question

There are no monarch caterpillars in the Mariposa Grove community garden.
Why are there no monarch caterpillars since the Field was made into the Garden?

Investigative Phenomena
Investigation Questions

Students use the Chapter 1 Question to frame and motivate their investigations (1.2, 1.3, 1.4)

Animals can only live in some places.

Why can an animal live where it does? (1.4, 1.5)

Evidence sources and reflection opportunities

- Read Science Walk (1.1, 1.2)
- Sort cards to compare living and nonliving things (1.2)
- Observe living things around the school (1.3)

- Compare animals in the Field and the Garden (1.4)
- Investigate pictures of animals eating food (1.4)
- Explore different habitats (1.5)
- Read about habitats in Handbook of Plants (1.5)
- Examine images of different habitats (1.5)
- Explain where animals live (1.5)

Key concepts

- Different kinds of plants and animals live in a place. (1.3)

- An animal needs to eat food to live. (1.4)
- Animals can only live in a place that has the food they need. (1.5)

Application of key concepts to problem

- Search for evidence of monarch caterpillars' food (milkweed) in Field and Garden pictures (1.6)
- Explain why monarch caterpillars cannot live in the Garden (1.7)

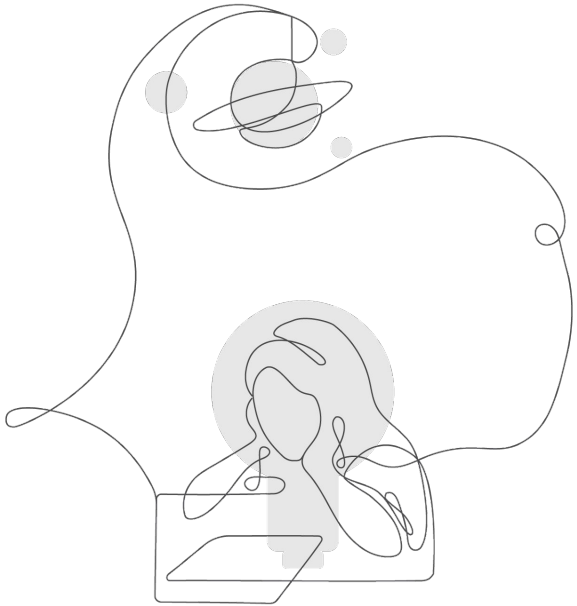
Explanation that students can make to answer the Chapter 1 Question

Last year, the Field was a place where monarch caterpillars could live, because there was milkweed for them to eat there. Now, in the Garden, there are no monarch caterpillars. The caterpillars cannot live in the Garden because the milkweed they need to eat is not there.

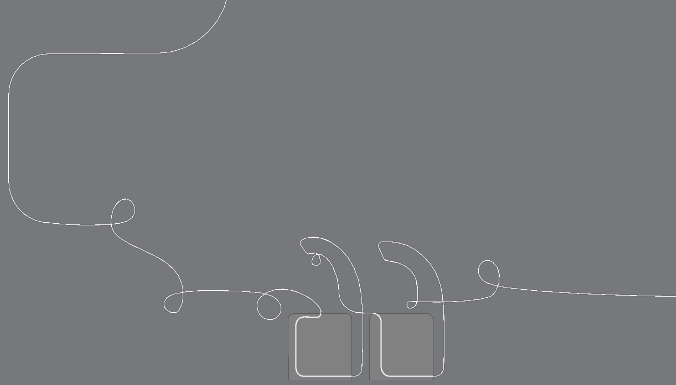
Explore the Coherence Flowchart

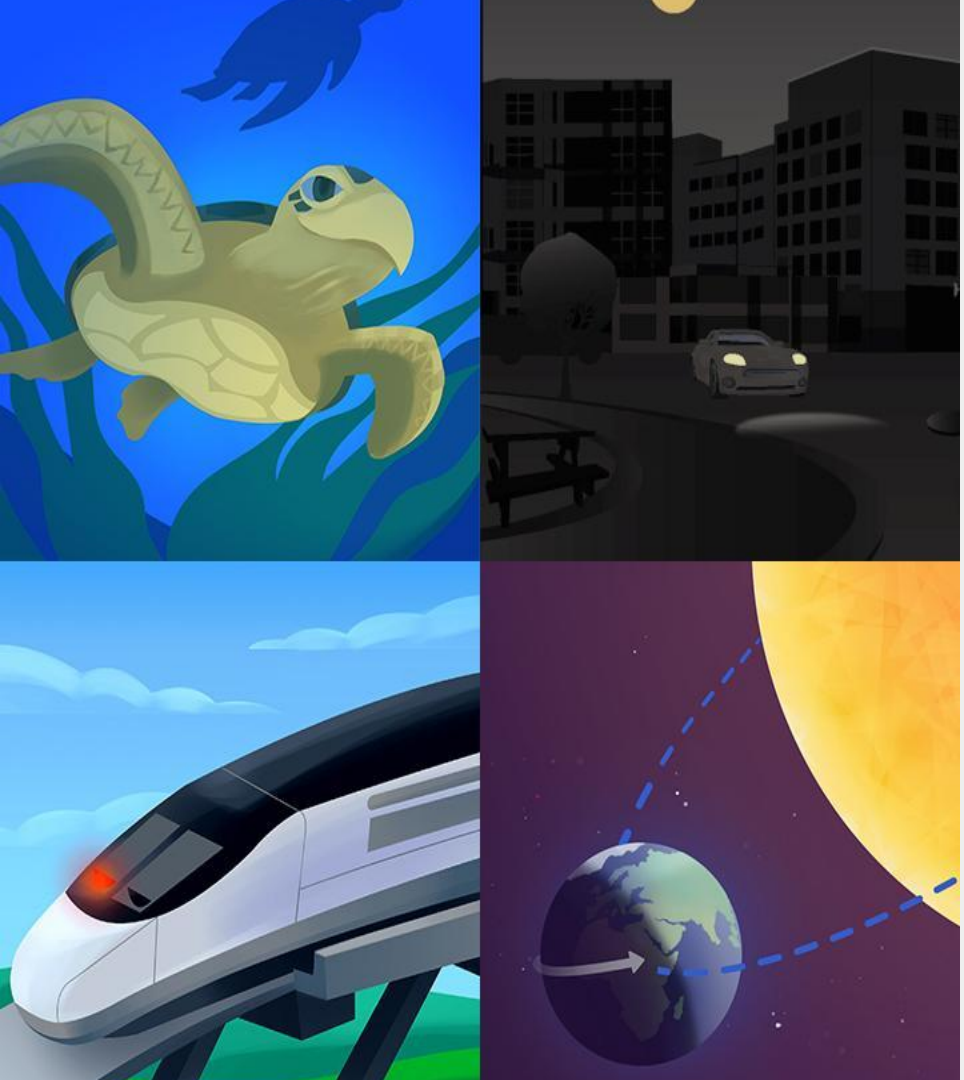
Skim the Chapter 1 Coherence Flowchart.

Think about how you might use the Coherence Flowchart to summarize learning throughout Chapter 1.



Questions?





Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

The Lesson Brief

Lesson Brief
(4 Activities)

1 TEACHER-LED DISCUSSION
Introduction to Observing

2 READING
Partner Reading: Science Walk

3 TEACHER-LED DISCUSSION
Comparing Living and Nonliving Things

4 STUDENT-TO-STUDENT DISCUSSION
Discussing Plants and Animals

RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

- Overview
- Materials & Preparation
- Differentiation
- Standards
- Vocabulary

Overview

Students work as scientists to expand their understanding of living things. The lesson begins with a formal introduction to the word *observe*, followed by a discussion of the senses that scientists use to observe, which are referred to as their Science Tool Kit. Then, partners identify living things in the illustrations of the book *Science Walk*. Next, the teacher introduces a card-sort activity to help the class figure out what types of things are living. The lesson concludes with another card-sort activity, this time with partners sorting living things in order to help them understand that both plants and animals are living. The purpose of this lesson is to further develop students' understanding of, and experience with, the practices that scientists use, as well as to guide them to draw conclusions about what types of things are living.

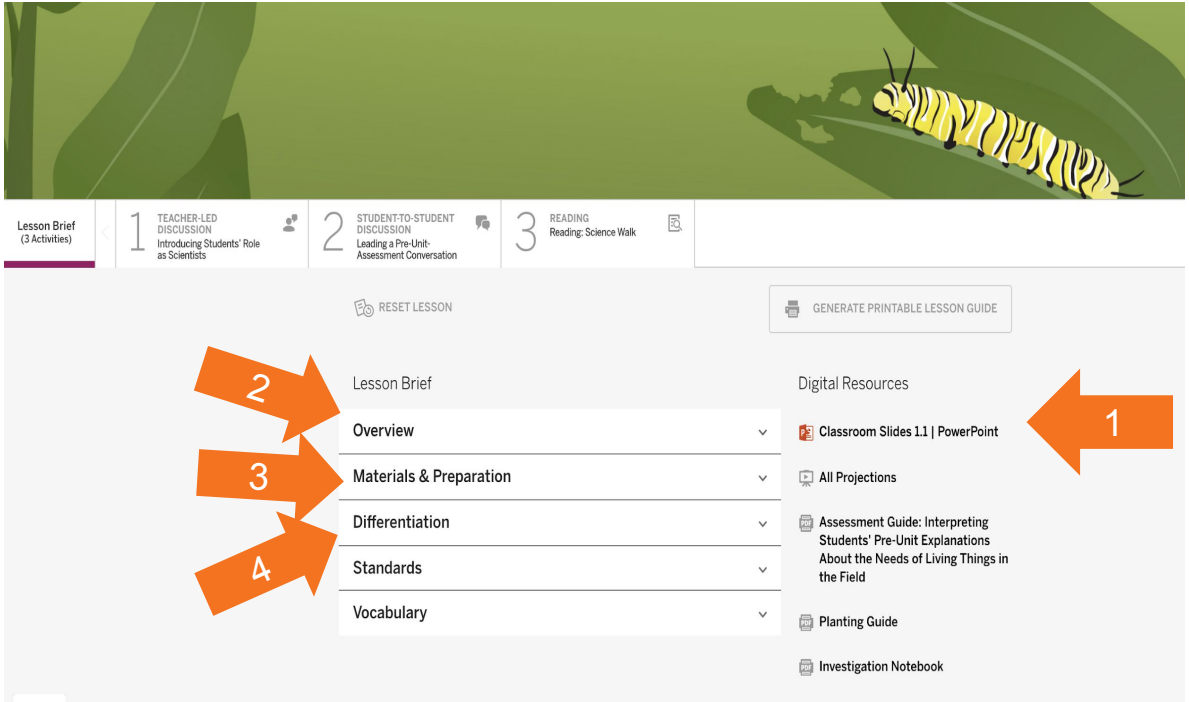
Digital Resources

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
- Partner Reading Guidelines
- Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds

4 Easy Steps to Teaching a lesson

DIRECTIONS:

1. Download the **Classroom Slides** for **Lesson 1.1** and review them.
2. Read the **Overview**.
3. Explore the **Materials & Preparation** document.
4. Read the **Differentiation** document.



4 Easy Steps to Teaching a lesson

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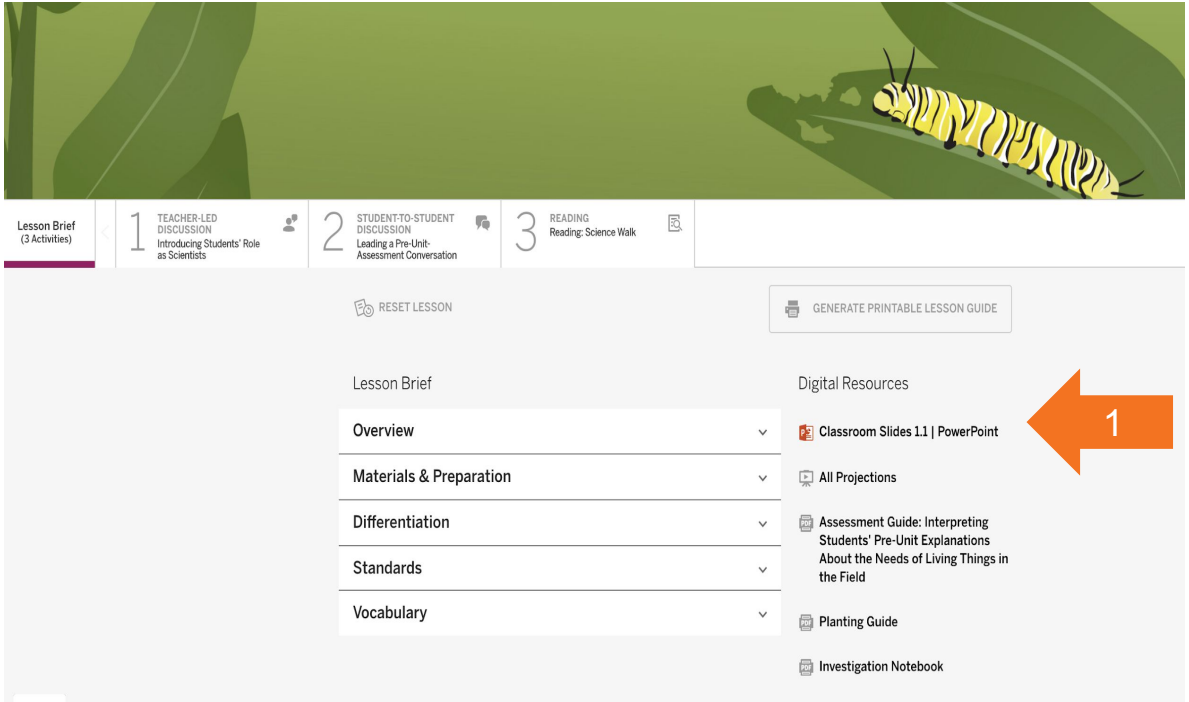
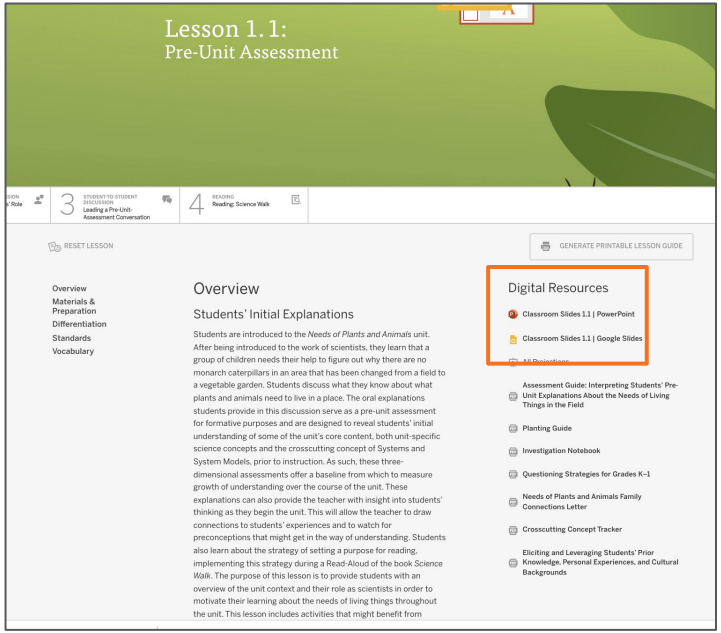


Preparing to teach

Classroom Slides

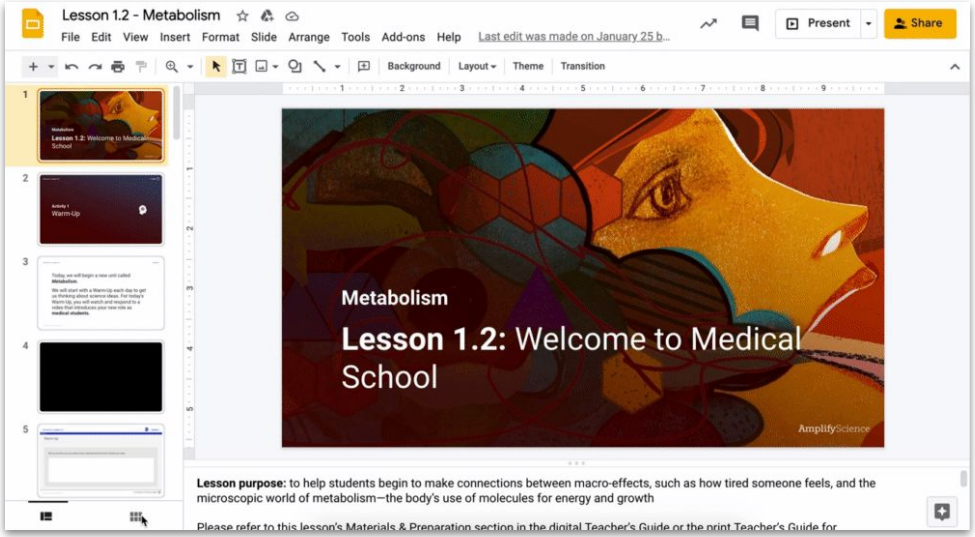
1. Open the **Classroom Slides** under the **Digital Resources** (a lesson of your choice)
2. Read through the Classroom Slides including the **presenter notes** to gain a better understanding of the lesson.
3. **Consider:**
    - What features of the Classroom Slides will support you in teaching this lesson?



Using Classroom Slides as a planning tool

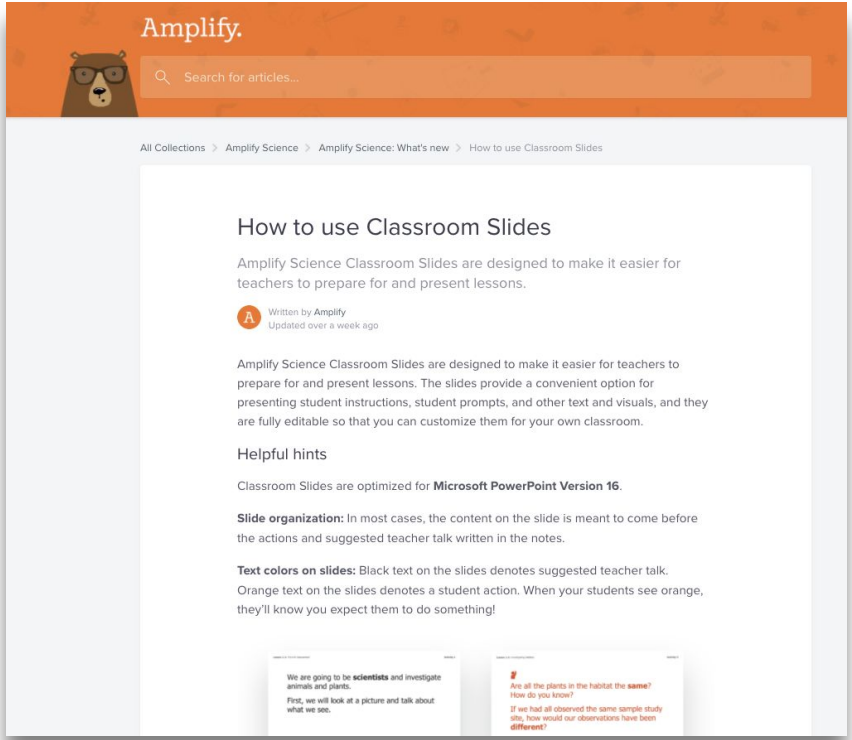
Teacher tip: Classroom Slides are a great visual summary of a lesson. Many teachers download and flip through a lesson's Classroom Slides deck to preview what happens in the lesson.

This is a useful first step for preparing to teach the lesson.



Teaching with Classroom Slides

This detailed guide on the Amplify Science Help Site includes tips for teaching with Classroom Slides and information about the different symbols and activity types you'll find in the slide deck.



Amplify.

Search for articles...

All Collections > Amplify Science > Amplify Science: What's new > How to use Classroom Slides

How to use Classroom Slides

Amplify Science Classroom Slides are designed to make it easier for teachers to prepare for and present lessons.

Written by Amplify
Updated over a week ago

Amplify Science Classroom Slides are designed to make it easier for teachers to prepare for and present lessons. The slides provide a convenient option for presenting student instructions, student prompts, and other text and visuals, and they are fully editable so that you can customize them for your own classroom.

Helpful hints

Classroom Slides are optimized for **Microsoft PowerPoint Version 16**.

Slide organization: In most cases, the content on the slide is meant to come before the actions and suggested teacher talk written in the notes.

Text colors on slides: Black text on the slides denotes suggested teacher talk. Orange text on the slides denotes a student action. When your students see orange, they'll know you expect them to do something!

We are going to be **scientists** and investigate animals and plants.

First, we will look at a picture and talk about what we see.

Are all the plants in the habitat the **same**? How do you know?

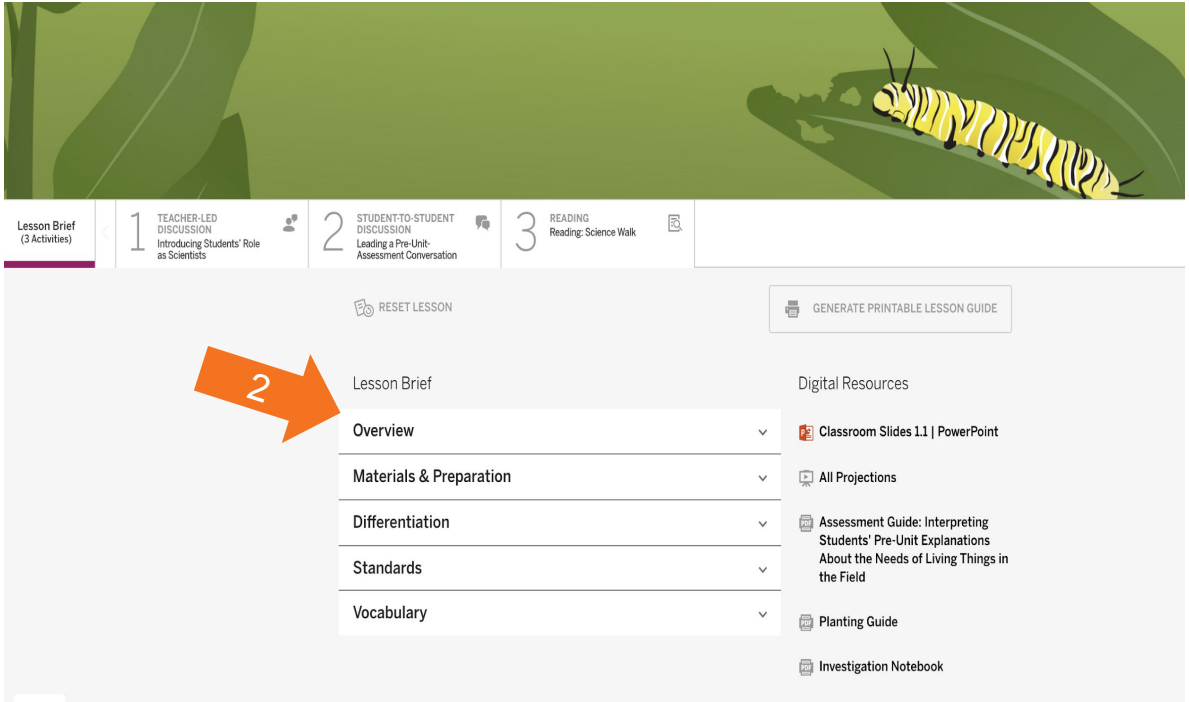
If we had all observed the same sample study site, how would our observations have been **different**?

https://my.amplify.com/help/en/articles/3159738-how-to-use-classroom-slides-grades-k-5

4 Easy Steps to Teaching a lesson

DIRECTIONS:

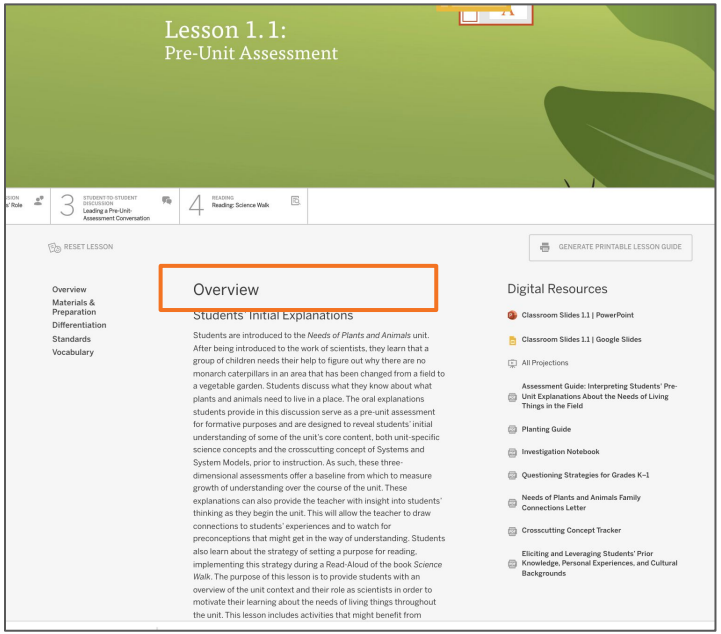
1. Download the **Classroom Slides** for **Lesson 1.2** and review them.
2. Read the **Overview**.
3. Explore the **Materials & Preparation** document.
4. Read the **Differentiation** document.



Preparing to teach

The Overview

- Read through the lesson overview.
- Find the purpose of the lesson.



4 Easy Steps to Teaching a lesson

DIRECTIONS:

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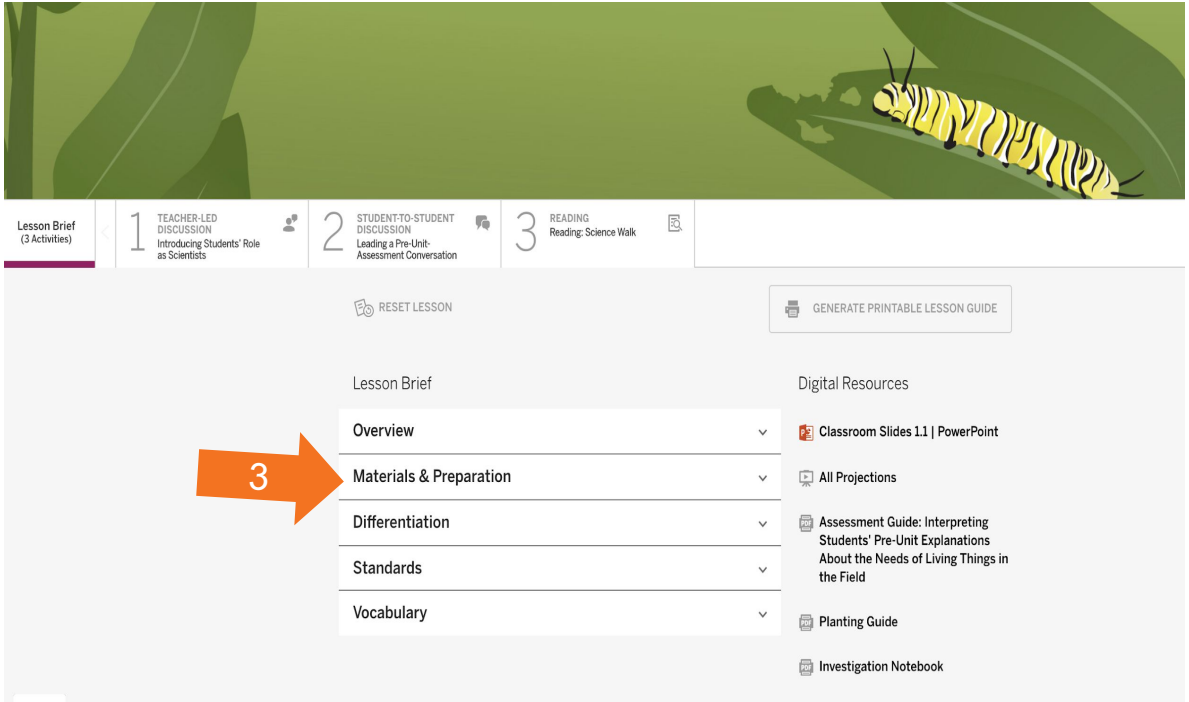
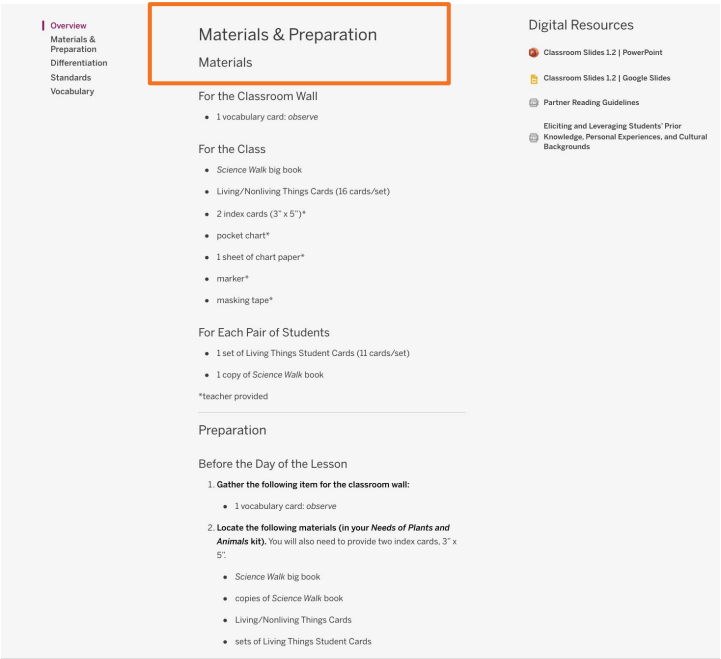


Preparing to teach

Materials and Prep

Review the materials needed for:

- The Classroom Wall
- For the Class
- For each pair of students (if applicable)
- Preparation



Overview
Materials & Preparation
Differentiation
Standards
Vocabulary

Materials & Preparation

Materials

For the Classroom Wall

- 1 vocabulary card: *observe*

For the Class

- *Science Walk* big book
- Living/Nonliving Things Cards (16 cards/set)
- 2 index cards (3" x 5")*
- pocket chart*
- 1 sheet of chart paper*
- marker*
- masking tape*

For Each Pair of Students

- 1 set of Living Things Student Cards (11 cards/set)
- 1 copy of *Science Walk* book

*teacher provided

Preparation

Before the Day of the Lesson

1. **Gather the following item for the classroom wall:**
   - 1 vocabulary card: *observe*
2. **Locate the following materials (in your *Needs of Plants and Animals* kit).** You will also need to provide two index cards, 3" x 5".
   - *Science Walk* big book
   - copies of *Science Walk* book
   - Living/Nonliving Things Cards
   - sets of Living Things Student Cards

Digital Resources

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
- Partner Reading Guidelines
- Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds

4 Easy Steps to Teaching a lesson

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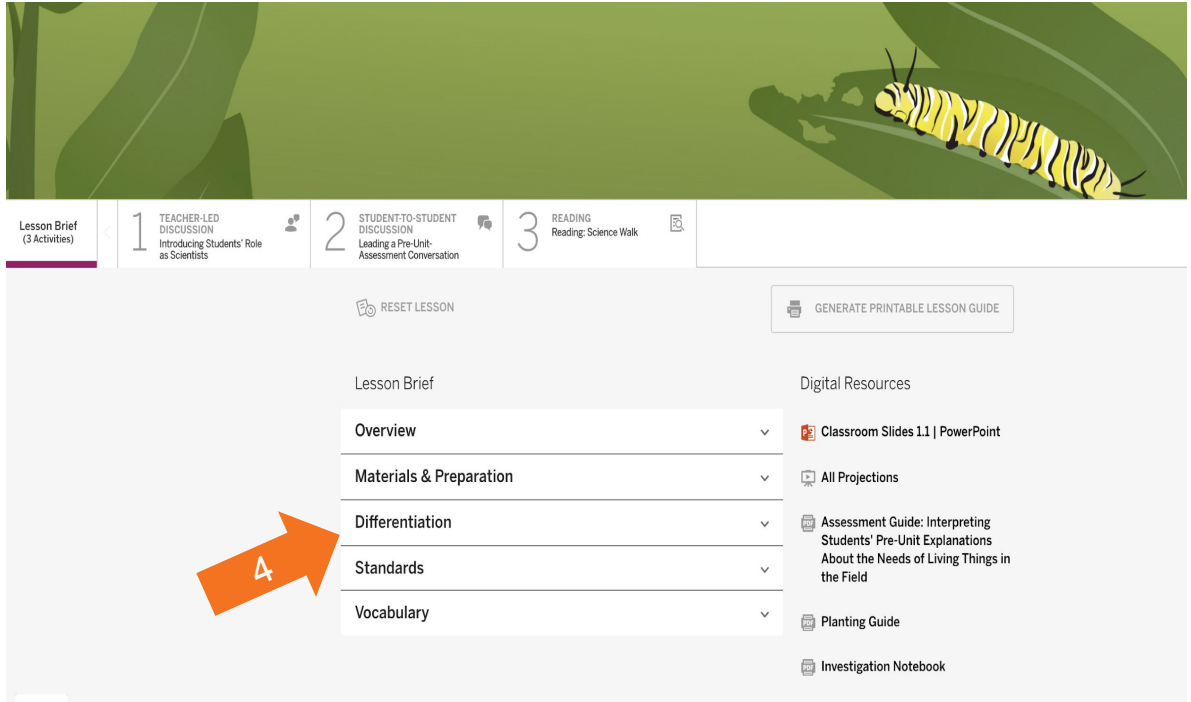
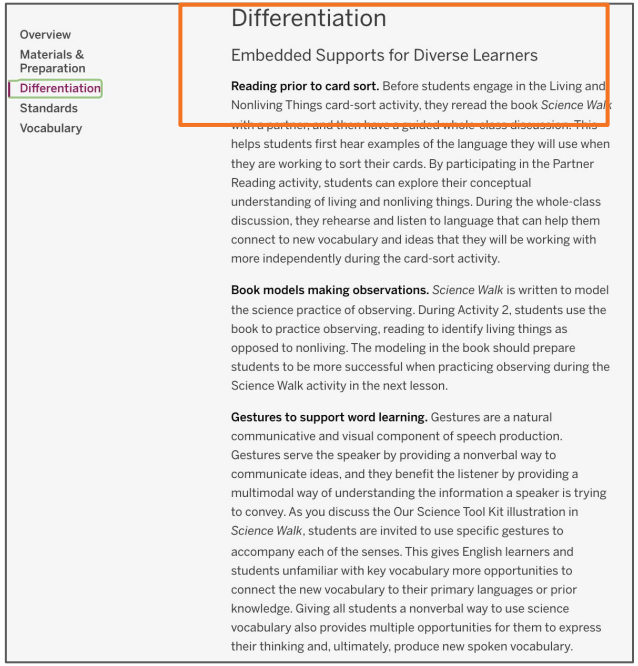


Preparing to Teach

Lesson-specific differentiation

- Embedded supports
- Potential challenges
- Strategies for:
  - English Learners
  - Students who need more support
  - Students who need more challenge



Overview
Materials & Preparation
Differentiation
Standards
Vocabulary

Differentiation

Embedded Supports for Diverse Learners

Reading prior to card sort. Before students engage in the Living and Nonliving Things card-sort activity, they reread the book *Science Walk* with a partner, and then have a guided whole-class discussion. This helps students first hear examples of the language they will use when they are working to sort their cards. By participating in the Partner Reading activity, students can explore their conceptual understanding of living and nonliving things. During the whole-class discussion, they rehearse and listen to language that can help them connect to new vocabulary and ideas that they will be working with more independently during the card-sort activity.

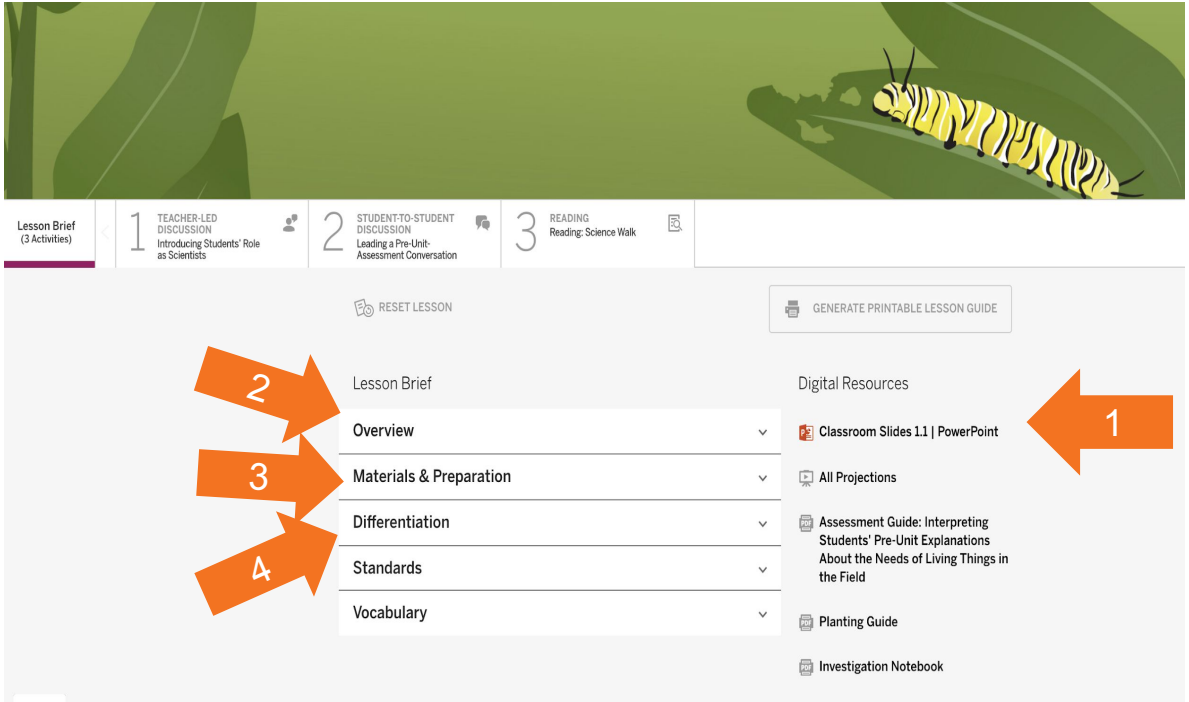
Book models making observations. *Science Walk* is written to model the science practice of observing. During Activity 2, students use the book to practice observing, reading to identify living things as opposed to nonliving. The modeling in the book should prepare students to be more successful when practicing observing during the Science Walk activity in the next lesson.

Gestures to support word learning. Gestures are a natural communicative and visual component of speech production. Gestures serve the speaker by providing a nonverbal way to communicate ideas, and they benefit the listener by providing a multimodal way of understanding the information a speaker is trying to convey. As you discuss the Our Science Tool Kit illustration in *Science Walk*, students are invited to use specific gestures to accompany each of the senses. This gives English learners and students unfamiliar with key vocabulary more opportunities to connect the new vocabulary to their primary languages or prior knowledge. Giving all students a nonverbal way to use science vocabulary also provides multiple opportunities for them to express their thinking and, ultimately, produce new spoken vocabulary.

4 Easy Steps to Teaching a lesson

DIRECTIONS:

1. Download the **Classroom Slides** for **Lesson 1.1** and review them.
2. Read the **Overview**.
3. Explore the **Materials & Preparation** document.
4. Read the **Differentiation** document.



Lesson __	Activity Overview	
What is the purpose of this lesson?	**Activity 1 (##min)**	
What will students learn?	**Activity 2 (##min)**	
3-D Statement (identify SEP, CCC, and DCI):	**Activity 3 (##min)**	
Student Resources:	**Activity 4 (##min)**	
Assessment Opportunities:	**Activity 5 (##min)**	

From the lesson at a glance in the overview

From the lesson overview

From the lesson standards

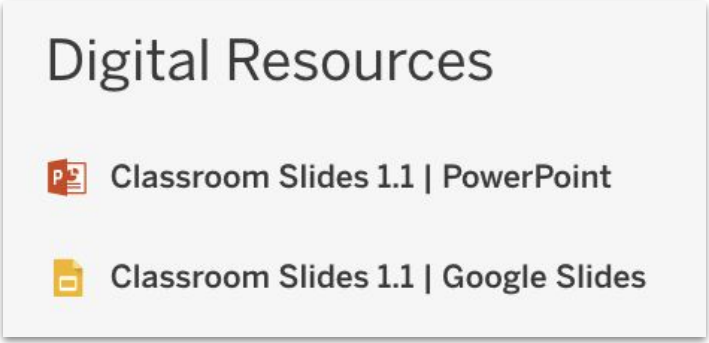
From the lesson materials and preparation

From the lesson at a glance in the overview or classroom slides

Directions for Planning Time

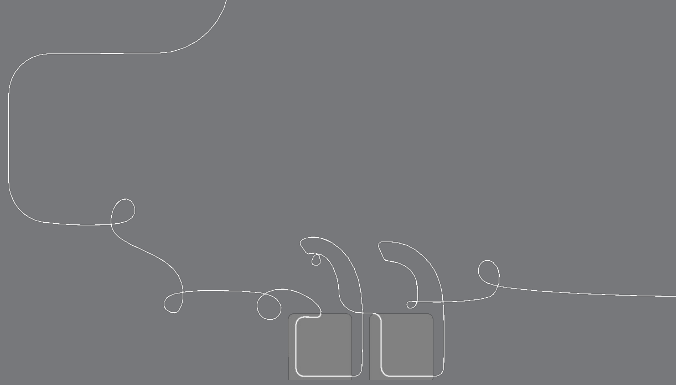
(Make your own copy first before planning)

1. Make a copy of this planning slide.
2. Download the classroom slides for the lesson you would like to plan
3. Insert the planning slide at the front of the classroom slide deck
4. Navigate at the lesson level to answer the questions on this slide
5. Make edits directly on your side deck to meet the needs of your students



Lesson _1.2_	Activity Overview	
What is the purpose of this lesson? The purpose of this lesson is to further develop students' understanding of, and experience with, the practices that scientists use, as well as to guide them to draw conclusions about what types of things are living.	**Activity 1 (5 min)**	Introduction to Observing
What will students learn? Scientists sort things into groups to help understand what they observe. Plants and animals are living things. Scientists use different ways to study the world. Scientists look for patterns when they make observations about the world.	**Activity 2 (15 min)**	Partner Reading: Science Walk
3-D Statement (identify SEP, CCC, and DCI): Students observe and compare in the book *Science Walk* living things in the ecosystem that is their habitat (systems and system models) in preparation for their own science walk. They also sort cards of living and nonliving things and then progress to sorting cards of living things into categories of plants and animals to evaluate and explain similarities and differences in living and nonliving things (patterns).	**Activity 3 (10 min)**	Comparing Living and Nonliving Things
Student Resources: For Each Pair of Students =1 set of Living Things Student Cards (11 cards/set), copy of *Science Walk* book	**Activity 4 (15 min)**	Discussing Plants and Animals
Assessment Opportunities: n/a	**Activity 5 (## min)**	

Questions?



Plan for the day: Part 2

- Part 1 Review
- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

Additional resources

Welcome, caregivers!

—

We hope you enjoy learning more about Amplify Science and what students are learning in science this year.

Para acceder a este sitio en español haga clic aquí.

Amplify welcomes you and your learner to the Science program for the new school year. We are very excited to

Grades 6-8

Caregivers

LAUSD Microsite-
https://amplify.com/lausd-science

Welcome to Amplify Science!

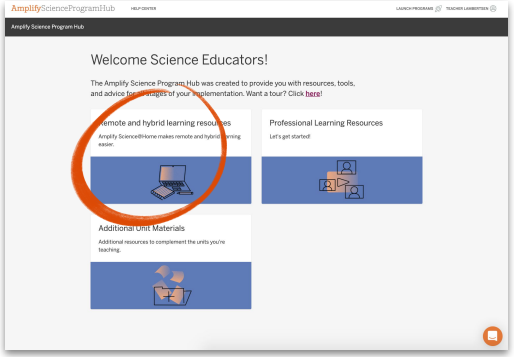
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

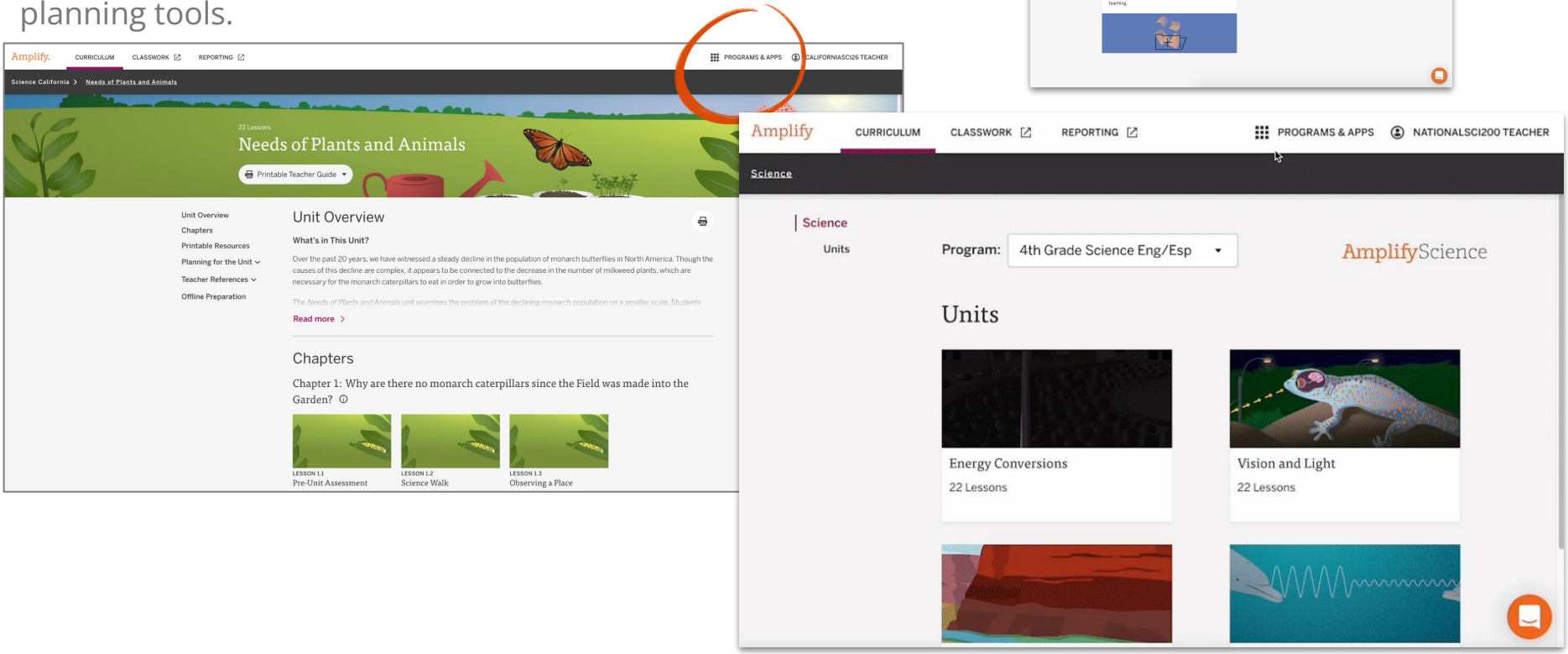
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
- Instructional guidance for a Responsive Relaunch of Amplify Science in 21-22

Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Program Hub

Use the Amplify Science Program Hub to find useful resources for implementing Amplify Science, including unit overview videos and planning tools.





Overarching goals

By the end of this workshop, you will be able to:

- ✓ Describe what teaching and learning look like in Amplify Science.
- ✓ Prepare to teach using Amplify Science resources.

Closing reflection

Based on our work today in Part 2, share:

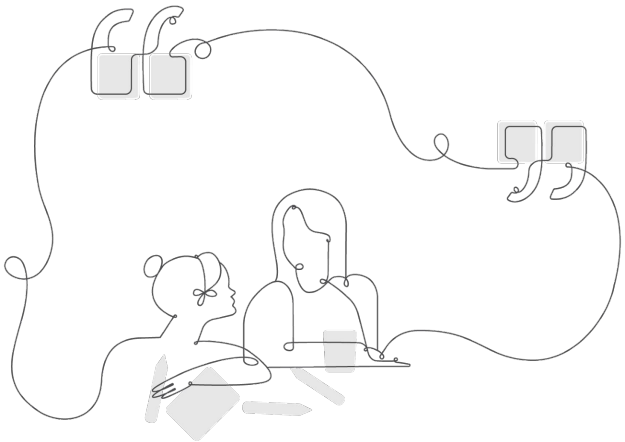
Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

Onsite Upcoming Professional Development!

Part 3: Unit 1 - Supporting English Learners



- October 15th (Alta California ES, NW)
- October 29th (Ochoa Learning Center, East)

In this session, participants explore strategies to support English learners' ability to do, talk, read, write, visualize, and construct arguments like scientists. Participants will identify the supports and strategies embedded in Unit 1 by engaging in model activities followed by independent planning.

Additional resources and ongoing support

Customer Care

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-10PM EST and weekends 10AM-6PM EST.

help@amplify.com

800-823-1969

Amplify Chat

Please provide feedback!

Type:

Strengthen

Session title:

Unit Internalization / Guided Planning

(Part 2)

Professional Learning Specialist name:

Insert name

(insert email, if you would like)