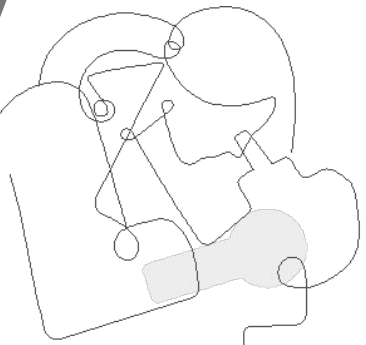
Amplify Science

Standard Curriculum Relaunch / Guided Planning

Grade K, Unit 2: Pushes and Pulls

Part 1



School/District Name: LAUSD
Date: November, 2021
Presented by: Jolene Hori

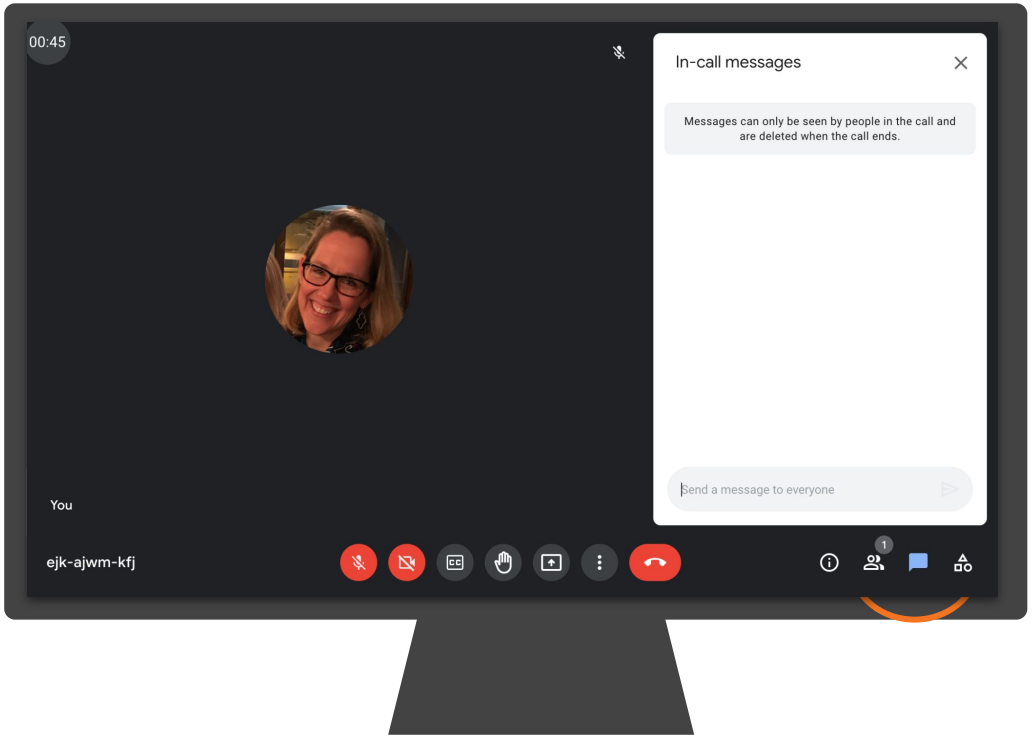
TOP RATED BY EDREPORTS

PLPG CERTIFIED PROVIDER

Ice Breaker!

Who do we have in the room today?

- **Question 1:** Which aspects of implementing the Amplify Science standard curriculum are you most excited or hopeful about?
- **Question 2:** What do you feel most hesitant about?



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.

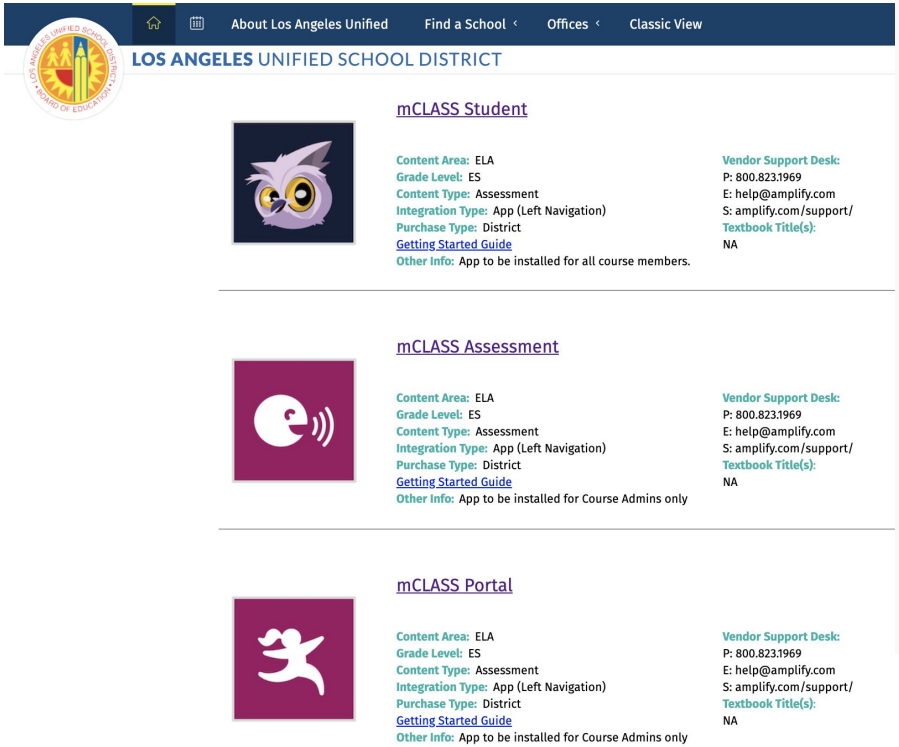
We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

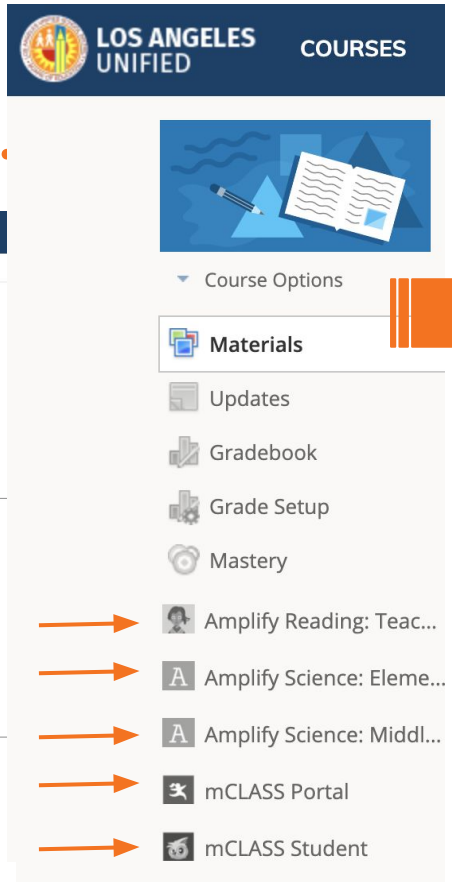
Sincerely,
Amplify

Norms: Establishing a culture of learners

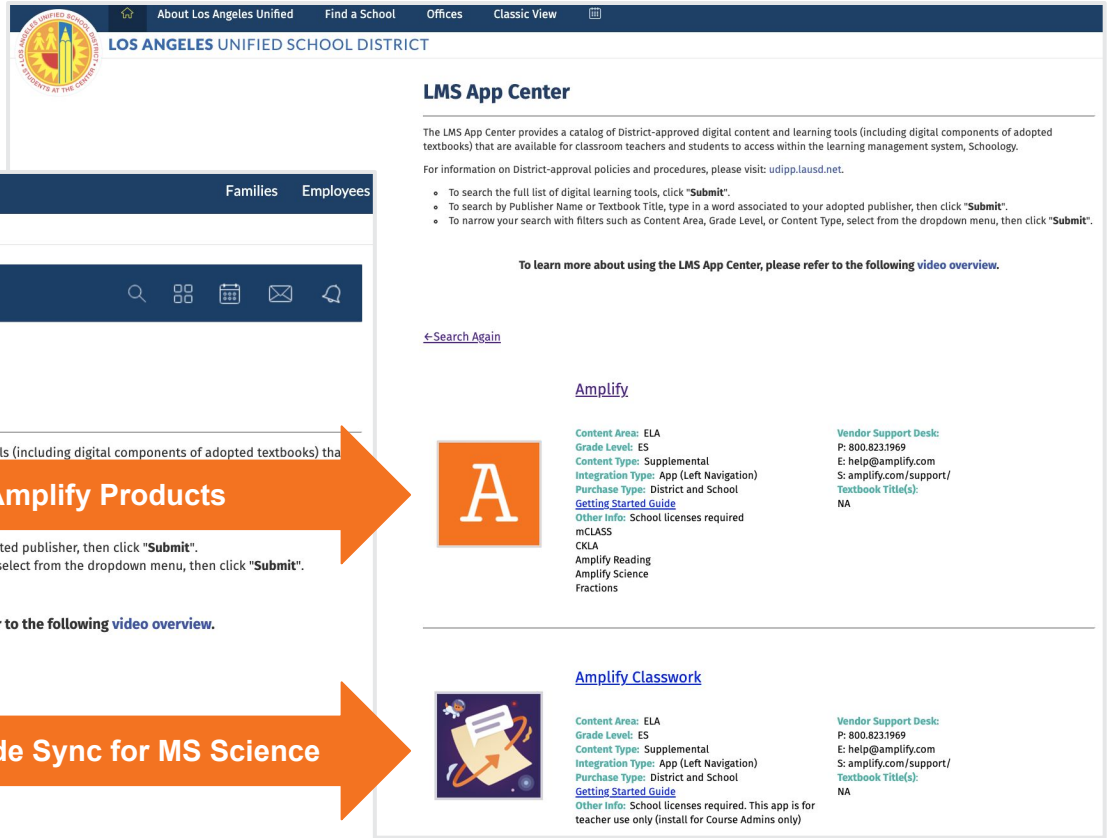
- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

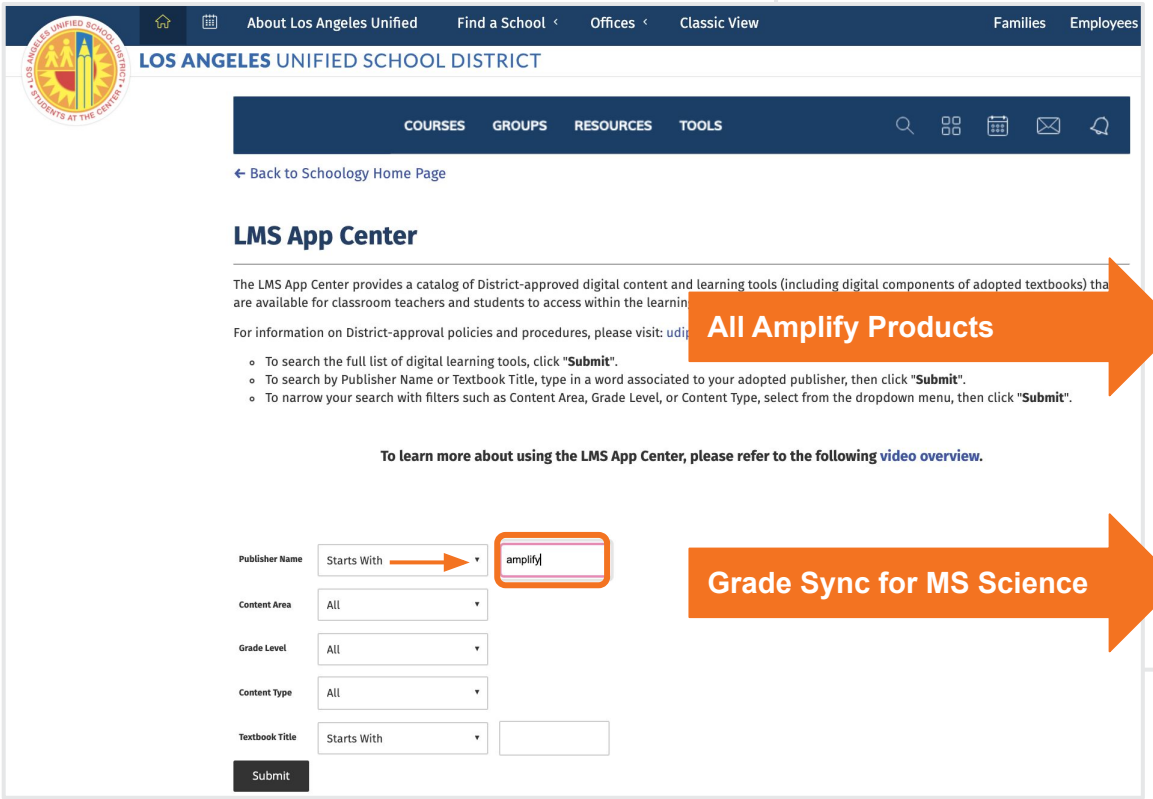
Last year's Amplify apps.





This year's app(s).





All Amplify Products

Grade Sync for MS Science

my.amplify.com

Amplify. MY ACCOUNT ADMIN REPORTS LAUNCH PROGRAMS TERIN NGO

mCLASS Educators: To view or make changes to your account go to mclass.amplify.com.

Hi, Terin

Classes

Programs & Licenses

Account Settings

Help Center

CKLA Hub

CKLA Resource Site

mCLASS Assessment

mCLASS Reporting

Reading 6-8

Reading K-5

Science

Vocabulary

Amplify. on Schoology

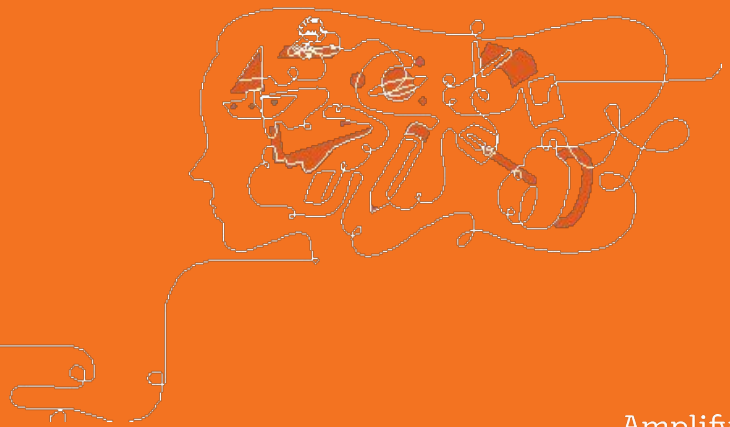
2021-2022

Join Amplify Science Schoology Group

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

Part 1:

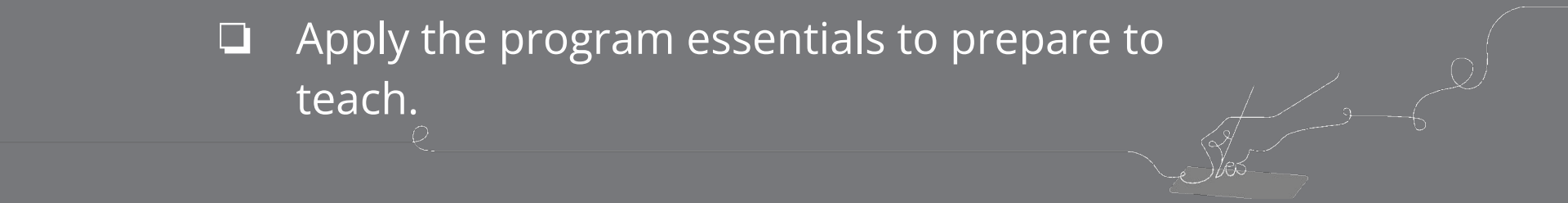
Amplify Science
Standard Curriculum Relaunch

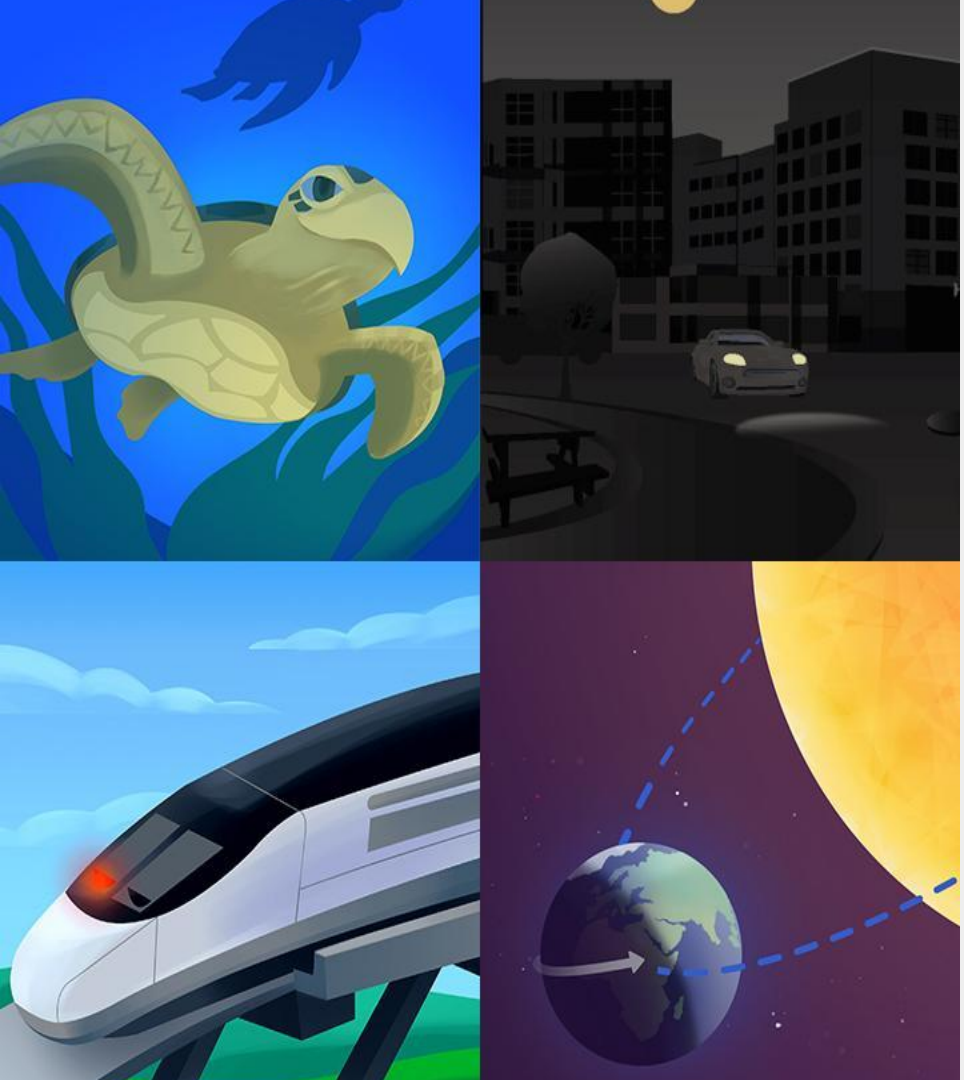


Overarching goals

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

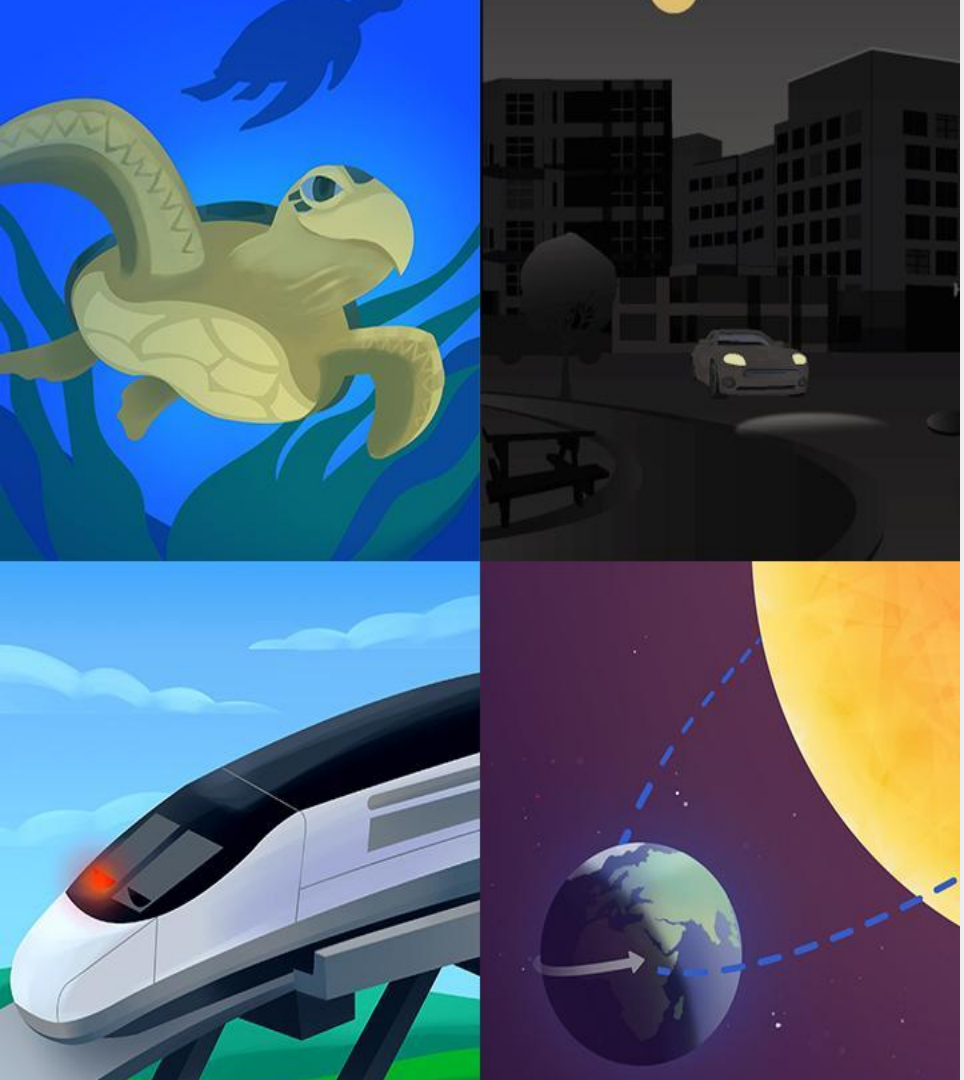
- ❏ Navigate the full Amplify Science standard curriculum.
- ❏ Understand the program's phenomenon-based approach.
- ❏ Apply the program essentials to prepare to teach.





Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Program Essentials
- Closing



Plan for the day: Part 1

- **Introduction and Framing**
- Phenomenon-based Instruction
- Program Essentials
- Closing

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

+ Amplify.

Amplify Science

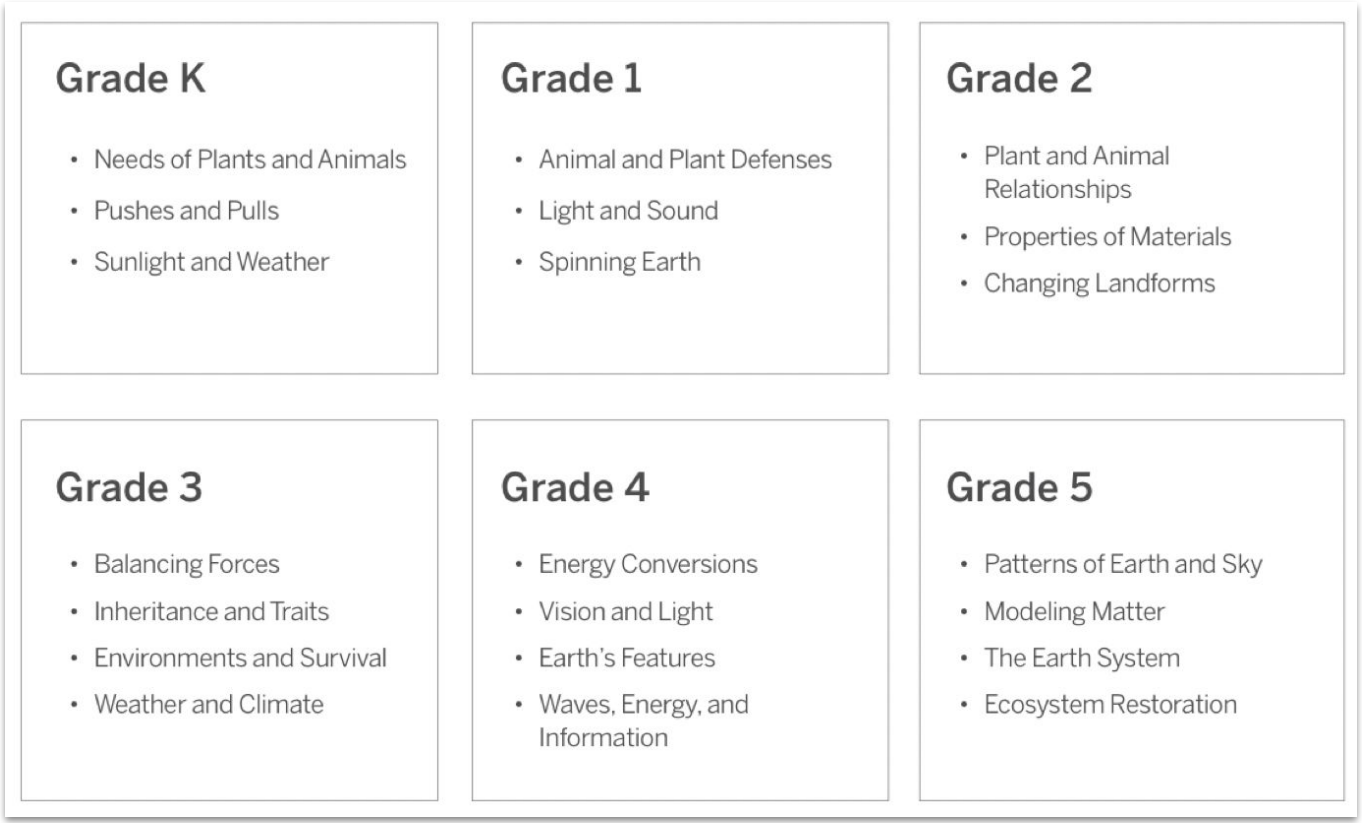
Next Generation Science Standards

Disciplinary Core Ideas — What students figure out

Science and Engineering Practices — How students figure out the science

Crosscutting Concepts — The habits of thinking that help students organize information

Course curriculum structure



Key takeaways:

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

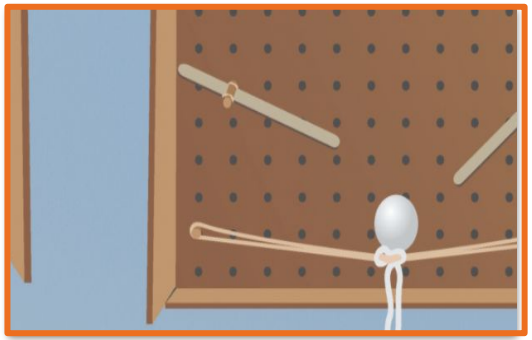
Year at a Glance: Kindergarten

Needs of Plants and Animals

Domain: Life Science

Unit type: Investigation

Student role: Scientist

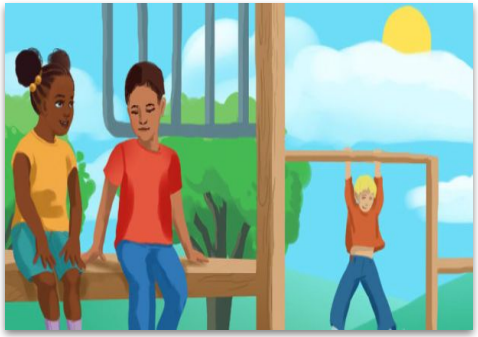


Pushes and Pulls

Domain: Physical Science

Unit type: Engineering Design

Student role: Pinball Engineer



Sunlight and Weather

Domain: Earth and Space Science

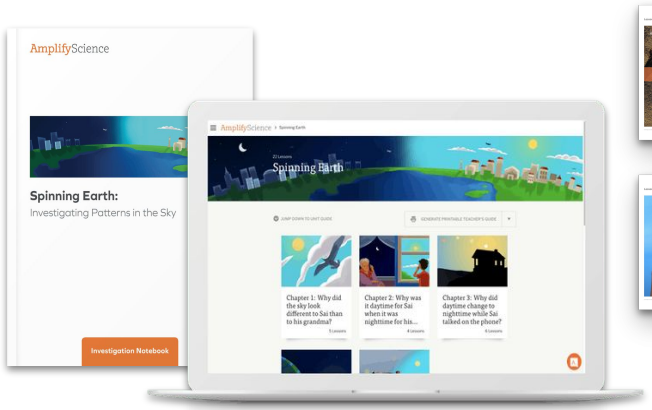
Unit type: Modeling

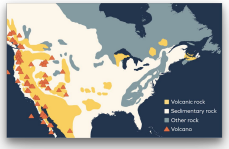
Student role: Weather Scientist

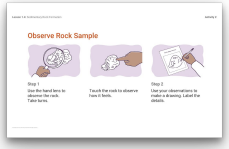
K-5 Program components

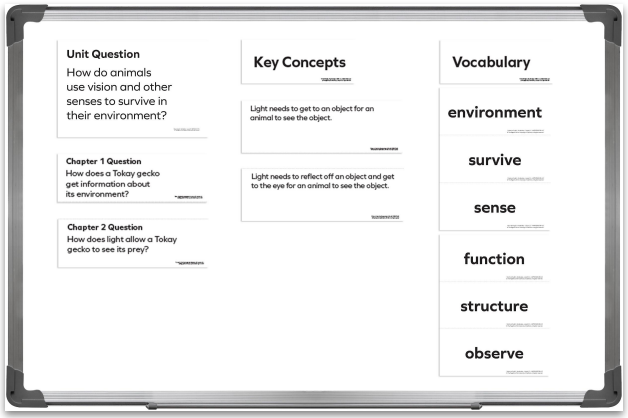
Teacher materials

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





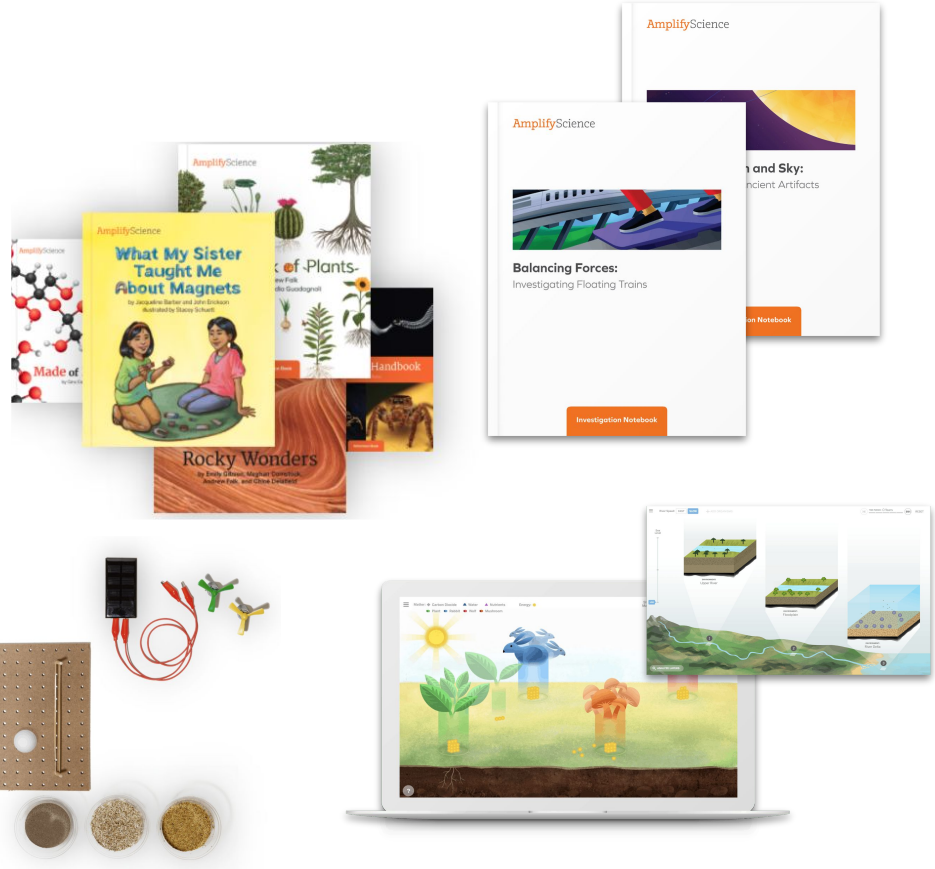




K-5 Program components

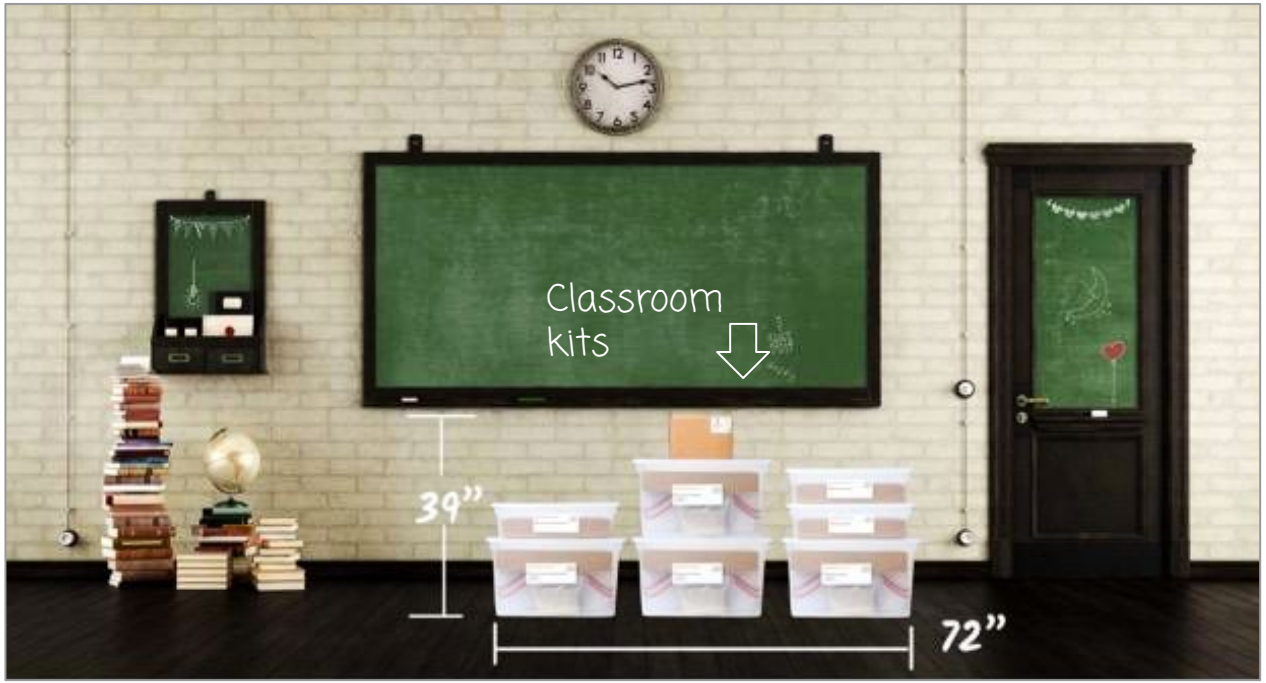
Student materials

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



K-5 Program components

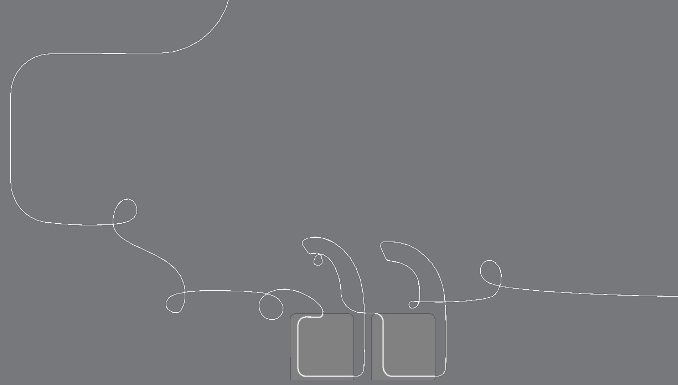
Classroom kits

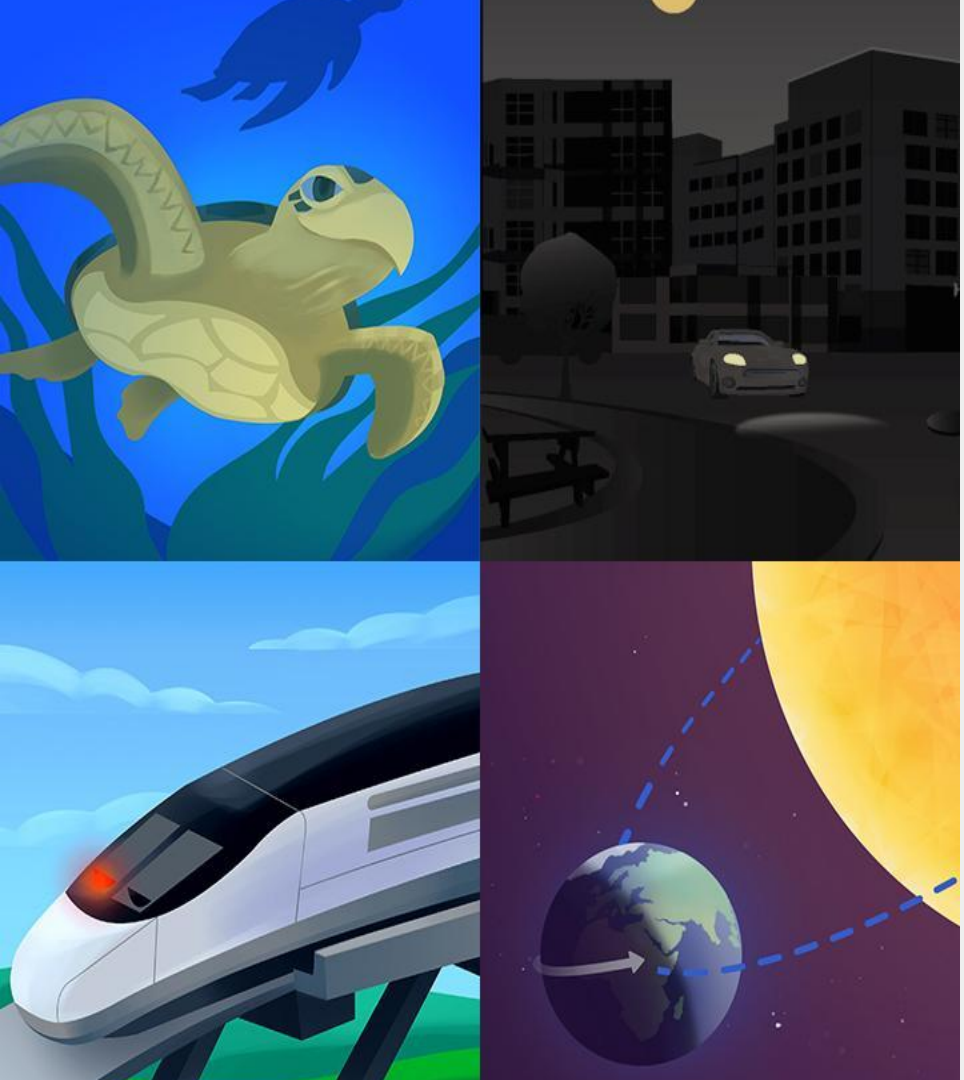


Classroom Kits

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

Questions?





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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?

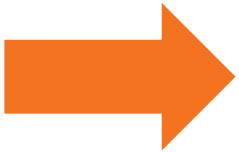
Topic-based	Phenomenon-based
Chemical reactions	There's a reddish-brown substance in a town's tap water.
Electric circuits	A flashlight won't turn on, even though it used to work.
Natural selection	A population of newts has become more poisonous over time.

Comparing topics and phenomena

A shift in science instruction

from learning about

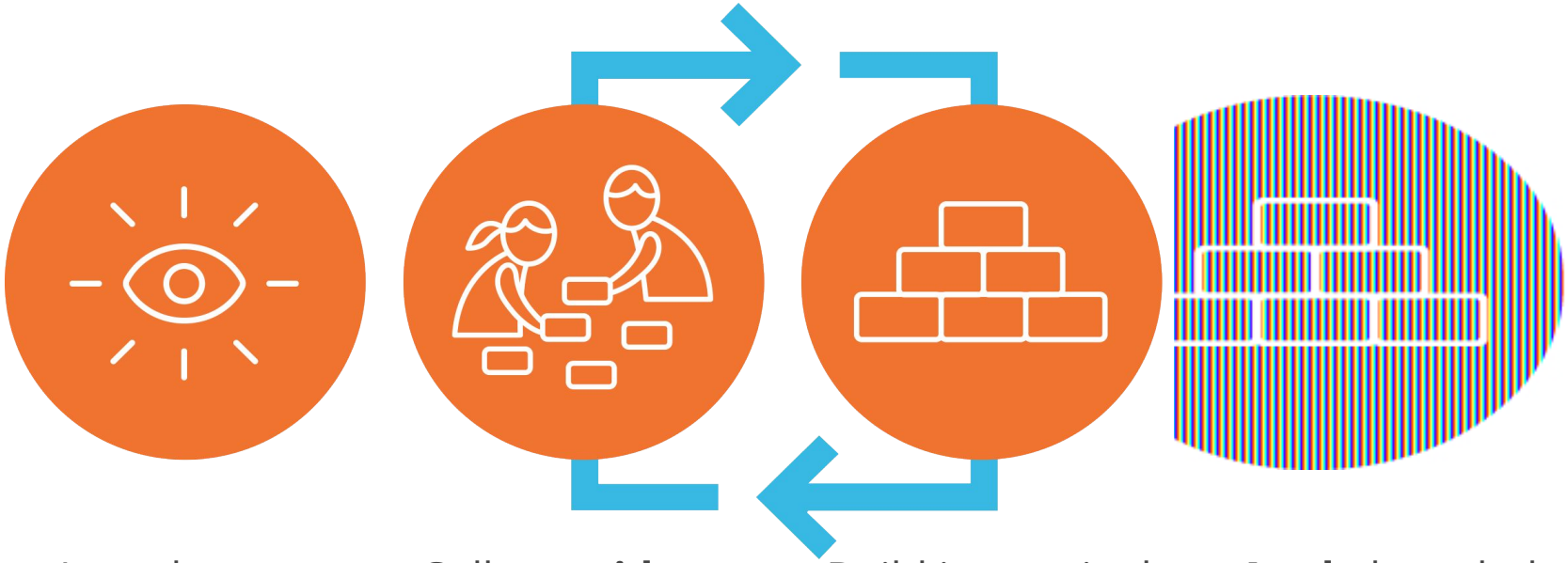
(like a student)



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**

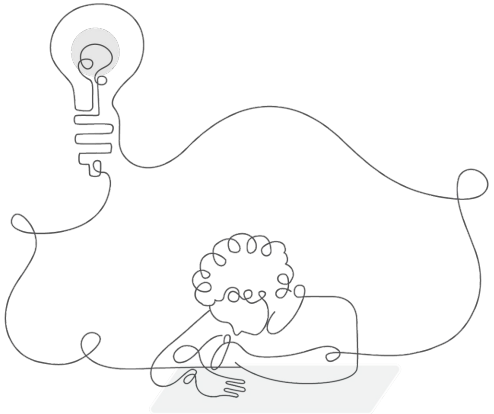
Apply knowledge to solve a different problem

Previewing the unit

Introducing the phenomenon

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

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



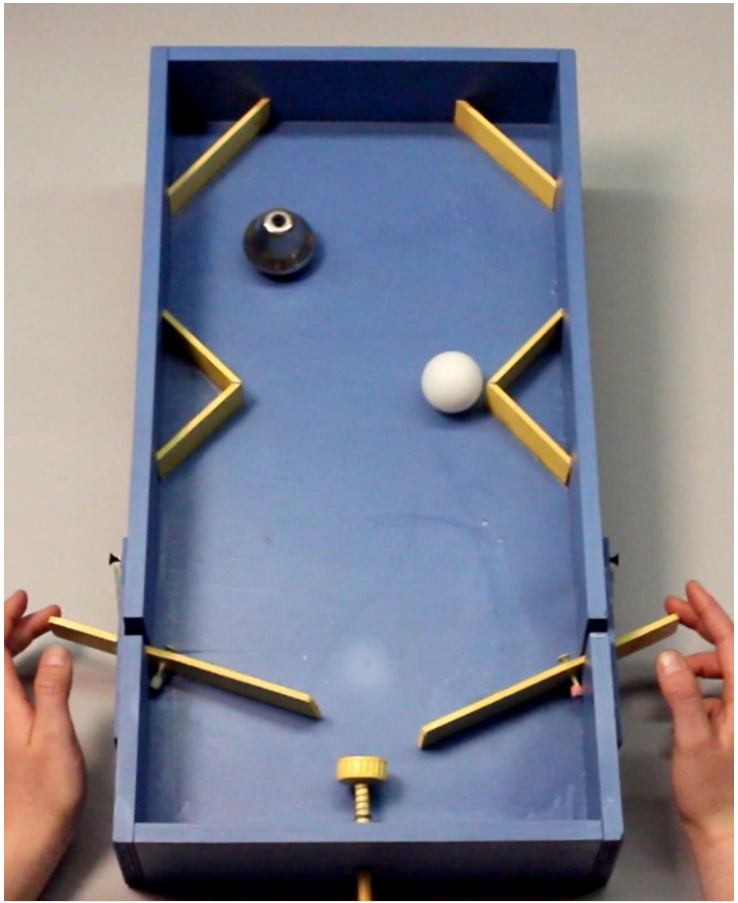
We have a chance to take on an interesting new challenge!

I have been thinking that our class could create our own pinball machine that we could play.

Let's think about what we already know about pinball machines.

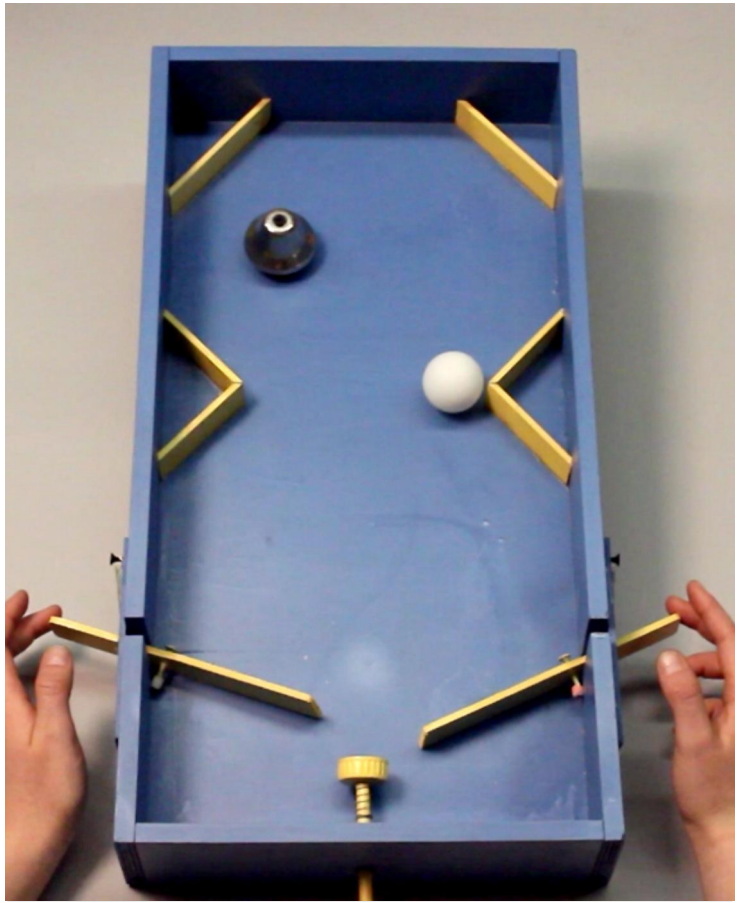
Do you know what a **pinball machine** is?

What do pinball machines do?



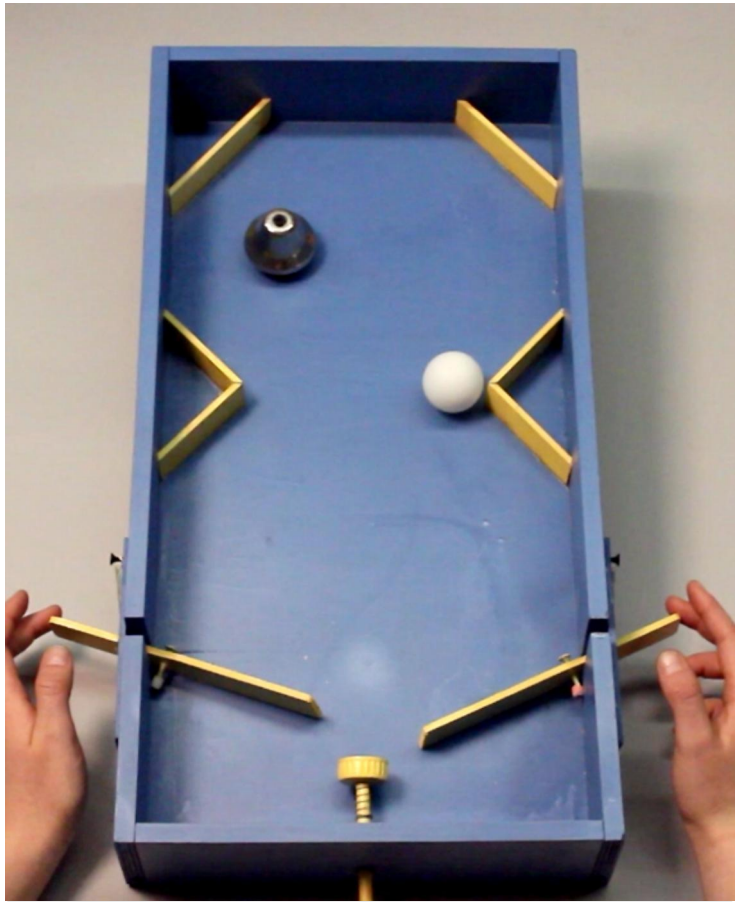
We will watch a video that shows **what pinball machines do.**

This will help us start thinking about how to make our pinball machine.



I am going to show the video a second time.

This time, pay careful attention to the **different ways that the ball moves.**



Let's talk about what we noticed.

What made the pinball **move in different ways** in the video?

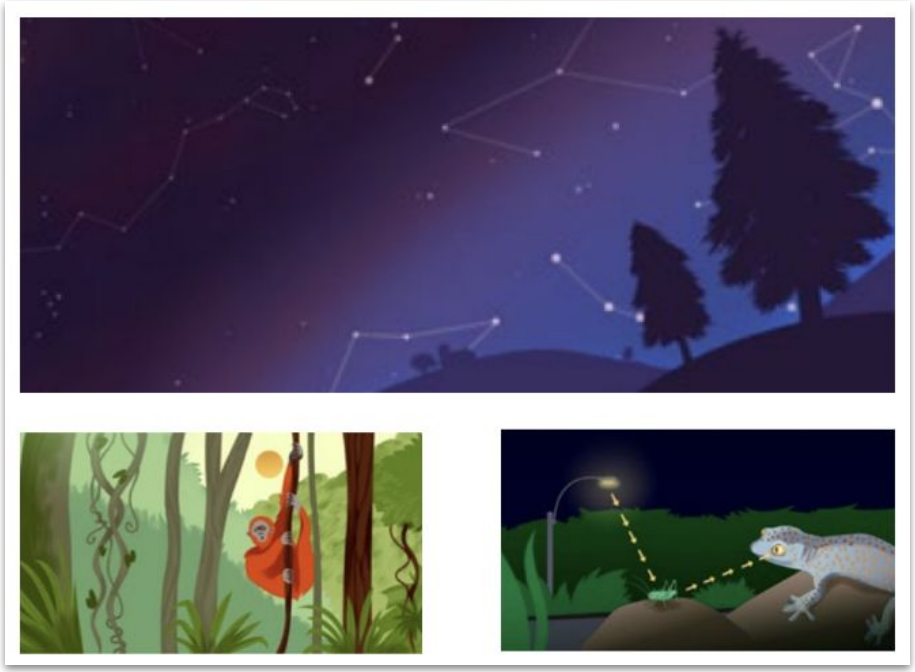
Unit Question

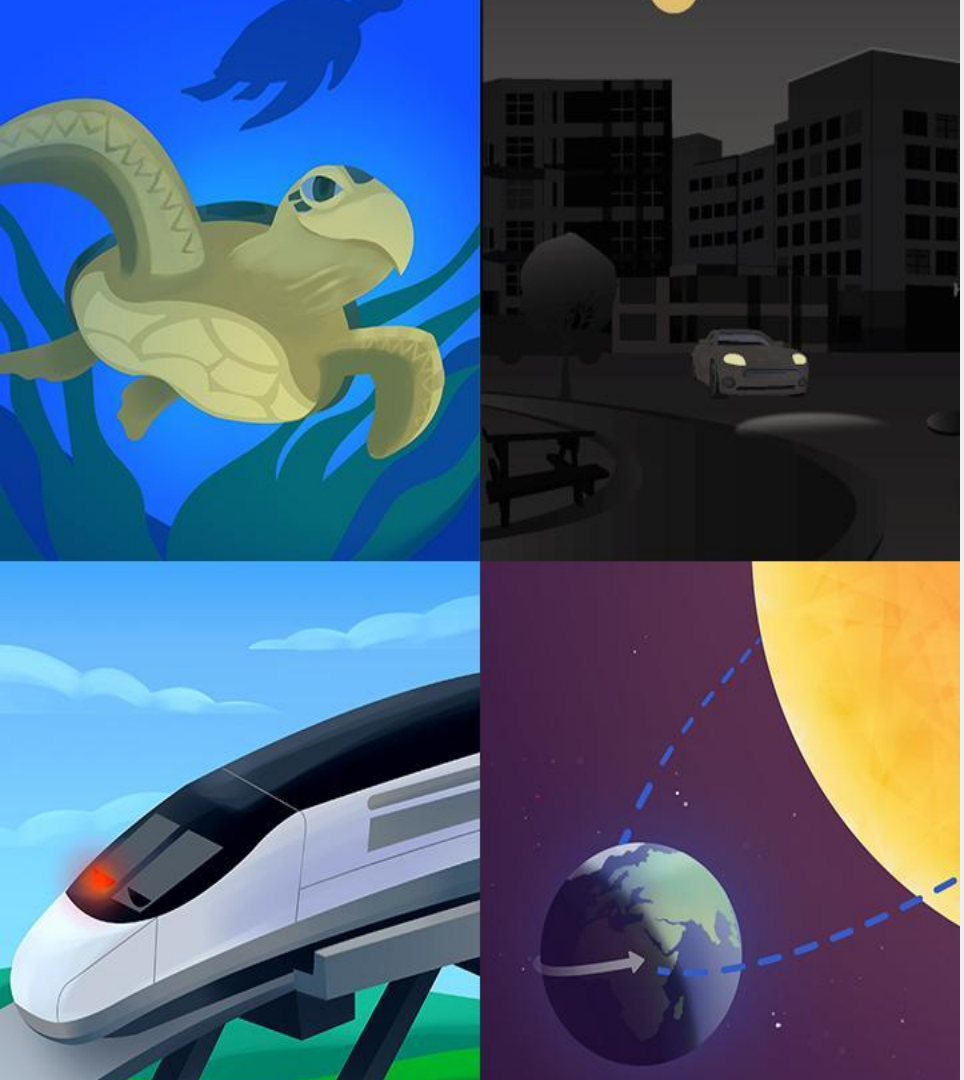
Why do things move in different ways?

Amplify Science

Anchoring phenomenon

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





Plan for the day: Part 1

- Introduction and Framing
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- Program Essentials
- Closing

Unit structure

Unit

↓

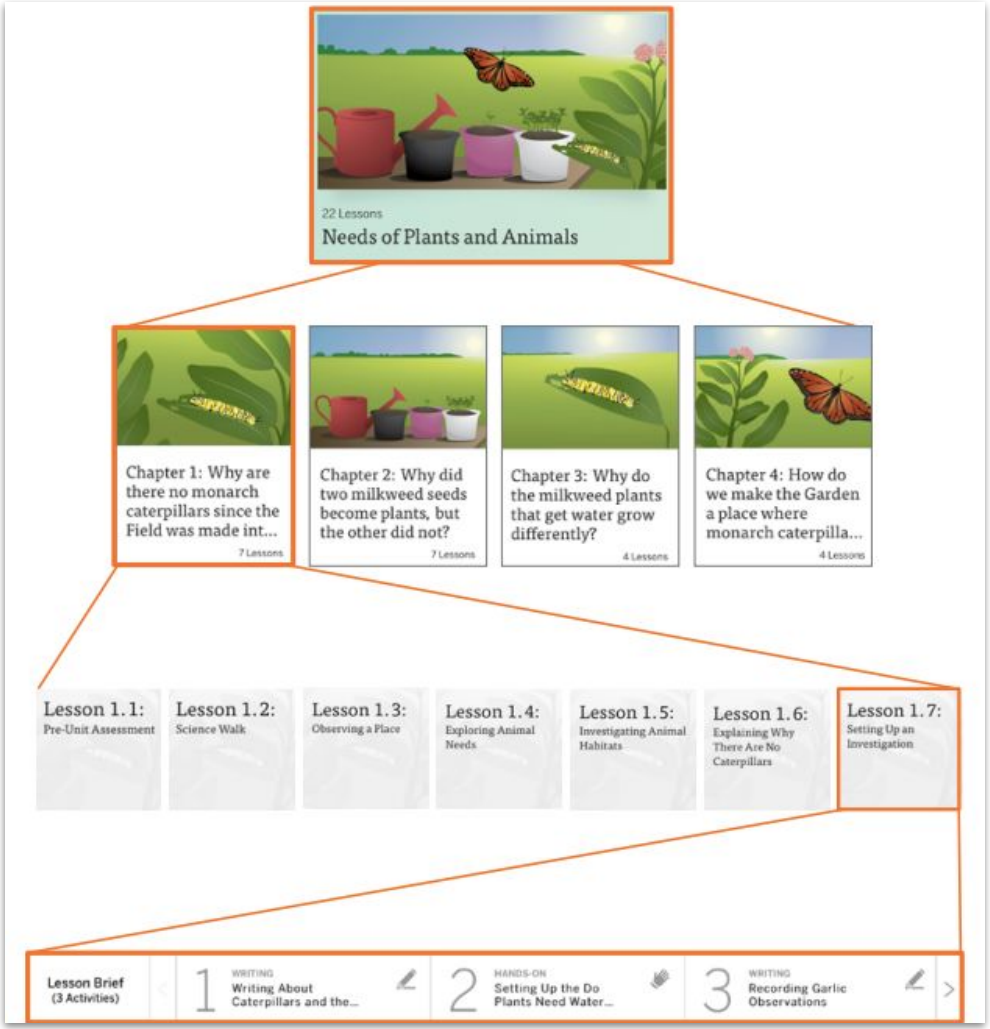
Chapter

↓

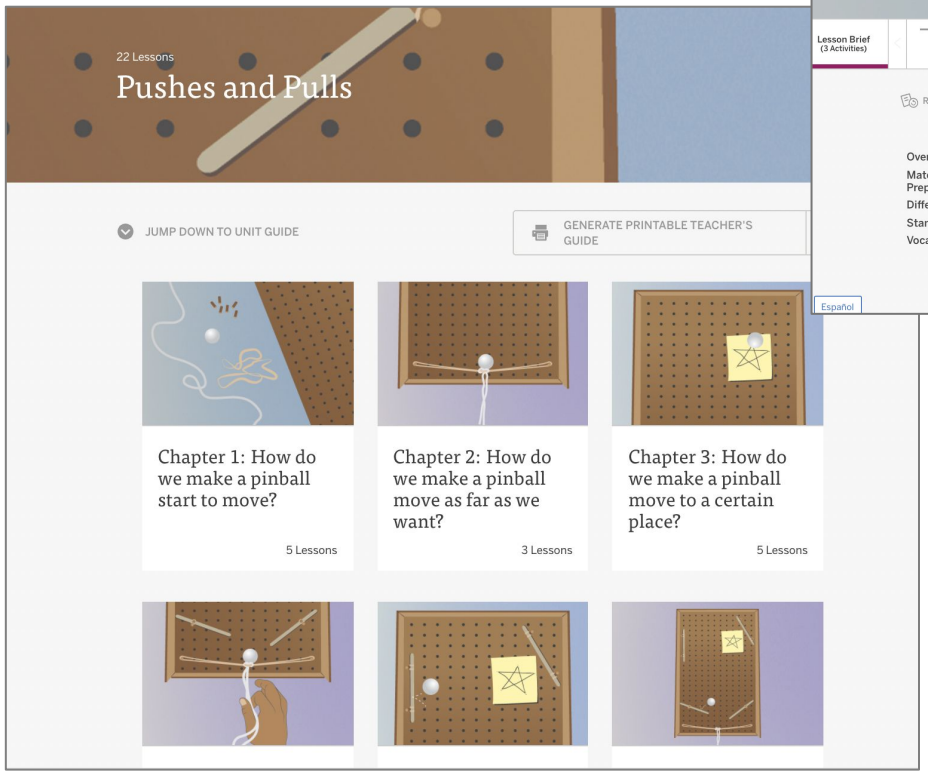
Lesson

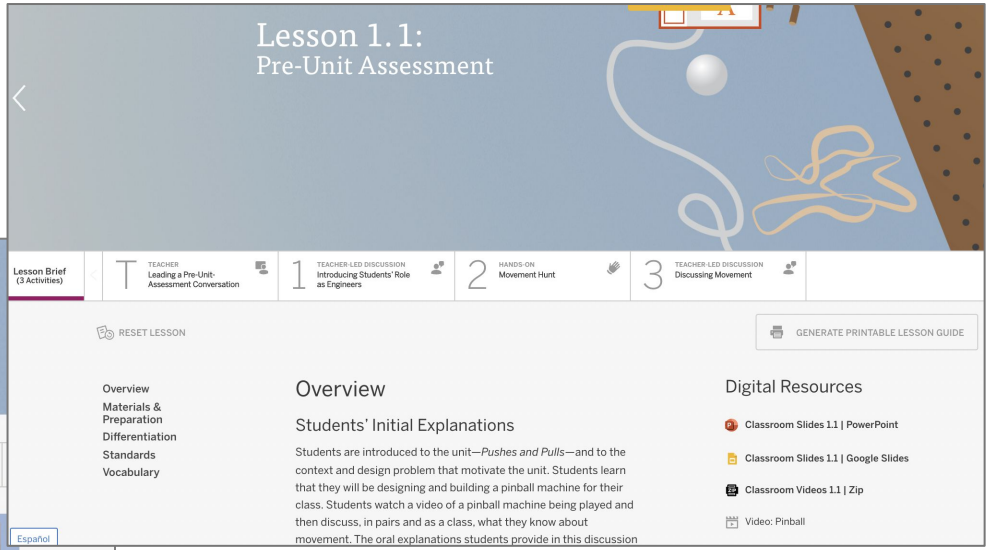
↓

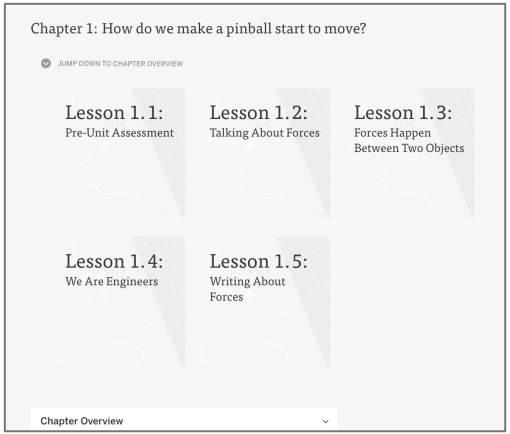
Activity



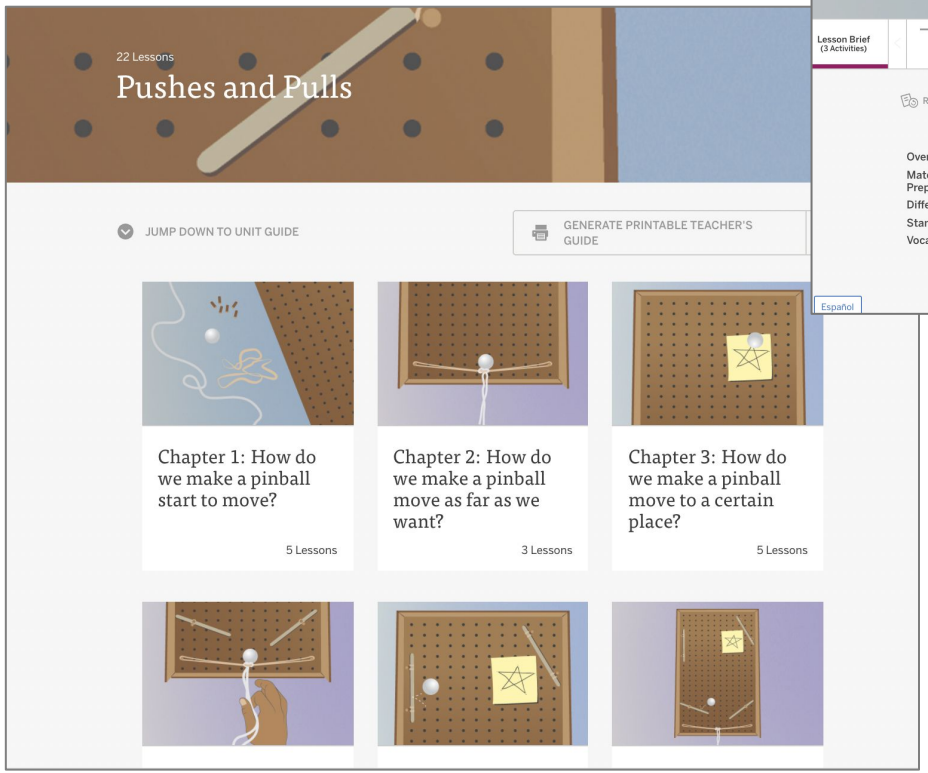
Let's Go Live!

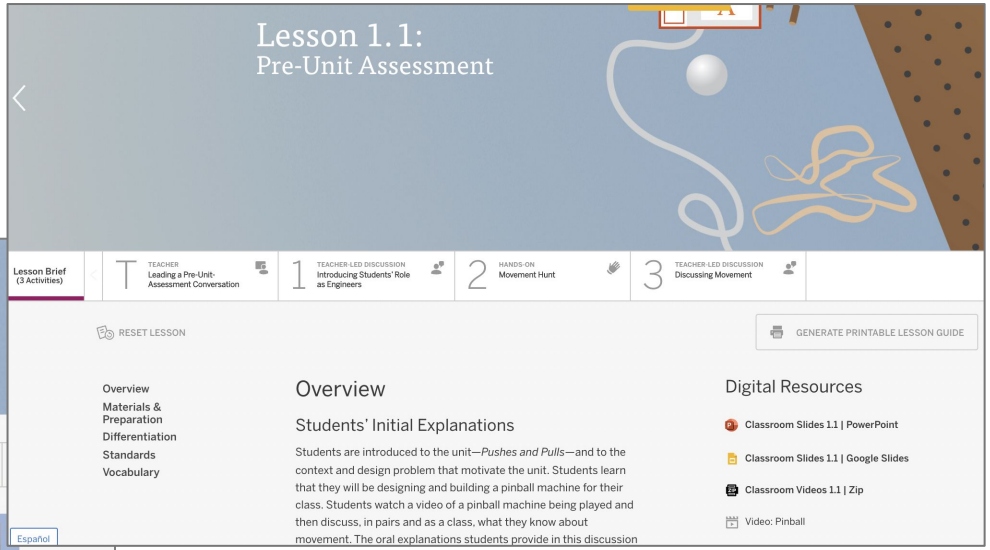

22 Lessons
Pushes and Pulls
JUMP DOWN TO UNIT GUIDE
GENERATE PRINTABLE TEACHER'S GUIDE
Chapter 1: How do we make a pinball start to move?
5 Lessons
Chapter 2: How do we make a pinball move as far as we want?
3 Lessons
Chapter 3: How do we make a pinball move to a certain place?
5 Lessons

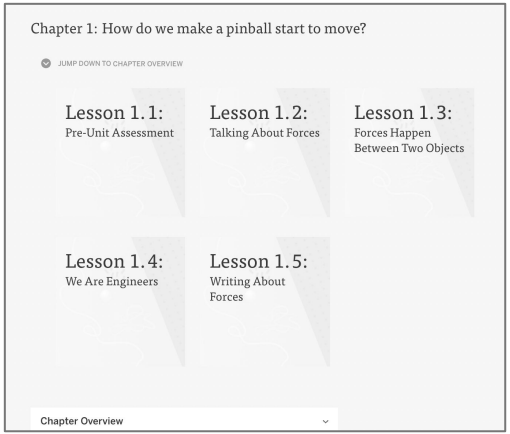

Lesson 1.1:
Pre-Unit Assessment
Lesson Brief (3 Activities)
T TEACHER Leading a Pre-Unit-Assessment Conversation
1 TEACHER-LED DISCUSSION Introducing Students' Role as Engineers
2 HANDS-ON Movement Hunt
3 TEACHER-LED DISCUSSION Discussing Movement
RESET LESSON
GENERATE PRINTABLE LESSON GUIDE
Overview
Materials & Preparation
Differentiation
Standards
Vocabulary
Overview
Students' Initial Explanations
Students are introduced to the unit—Pushes and Pulls—and to the context and design problem that motivate the unit. Students learn that they will be designing and building a pinball machine for their class. Students watch a video of a pinball machine being played and then discuss, in pairs and as a class, what they know about movement. The oral explanations students provide in this discussion
Digital Resources
Classroom Slides 1.1 | PowerPoint
Classroom Slides 1.1 | Google Slides
Classroom Videos 1.1 | Zip
Video: Pinball
Español


Chapter 1: How do we make a pinball start to move?
JUMP DOWN TO CHAPTER OVERVIEW
Lesson 1.1:
Pre-Unit Assessment
Lesson 1.2:
Talking About Forces
Lesson 1.3:
Forces Happen Between Two Objects
Lesson 1.4:
We Are Engineers
Lesson 1.5:
Writing About Forces
Chapter Overview

Explore the Essentials



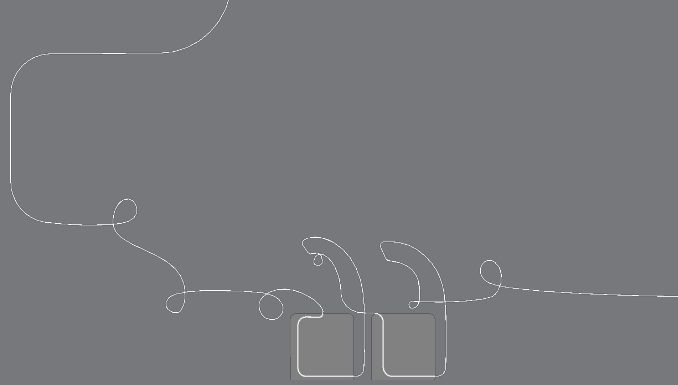




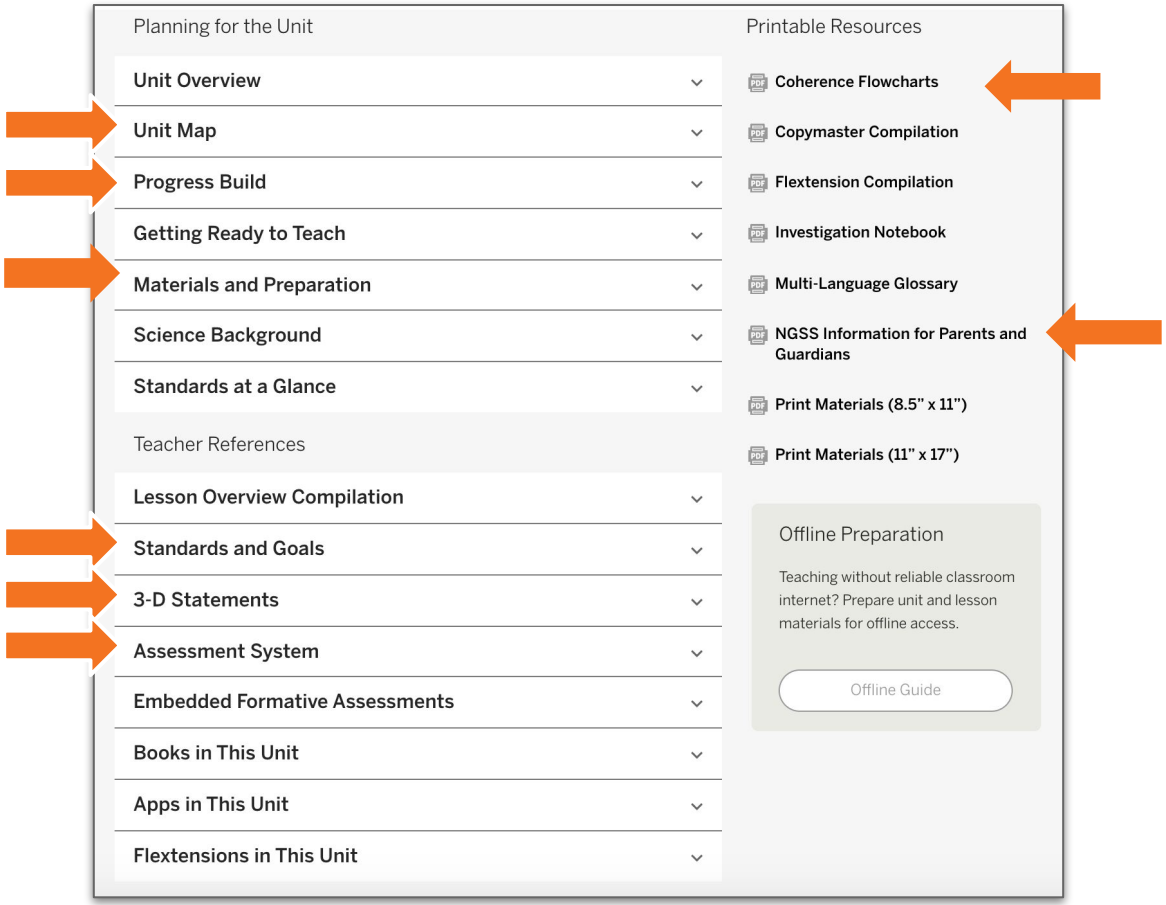
Navigation summary

1. Select your first unit
    a. You are now on the Unit Landing Page.

2. Select **JUMP DOWN TO UNIT GUIDE.**
    a. **Or scroll down the page to *Planning for the Unit* and *Teacher References***



Key Unit Guide Documents for Planning



Core Unit Planning & Internalization

Unit Title:	Pushes and Pulls

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:
Unit Question:	Relationship between the Unit Phenomenon and Unit Question:
By the end of the unit, students figure out...	
How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit?	

Core Unit Planning & Internalization

Unit Title: Pushes and Pulls

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What is the phenomenon/real-world problem students are investigating in your unit?

Student Role:

Unit Question:

Relationship between the Unit Phenomenon and Unit Question:

Suggested resource:

- Unit Overview / Unit Map/ Coherence Flowchart

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

Core Unit Planning & Internalization

Unit Title: Pushes and Pulls

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?

How can we create a pinball machine for our class!

Student Role:

Pinball Engineers

Unit Question:

Relationship between the Unit Phenomenon and Unit Question:

Suggested resource:

- Unit Overview / Unit Map

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

Core Unit Planning & Internalization

Unit Title:	Pushes and Pulls

Overview

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

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By the end of the unit, students figure out...	
How d…	…omenon/real-world problem in your unit?

Suggested resource:

- **Lesson Overview Compilation / Unit Overview**

Core Unit Planning & Internalization

Unit Title:	Pushes and Pulls

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 we create a pinball machine for our class!	Pinball Engineers
Unit Question:	**Relationship between the Unit Phenomenon and Unit Question:**
Why do things move in different ways?	Students use their understanding of the phenomena of force and motion to identify pushes and pulls more broadly in their lives.

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

Ho…henomenon/real-world problem in your unit?

Suggested resource:

- **Lesson Overview Compilation / Unit Overview**

1

Core Unit Planning & Internalization

Unit Title: Pushes and Pulls

Overview

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

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How can we create a pinball machine for our class!

Student Role:

Pinball Engineers

Unit Question:

Why do things move in different ways?

Relationship between the Unit Phenomenon and Unit Question:

Students use their understanding of the phenomena of force and motion to identify pushes and pulls more broadly in their lives.

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

How do students engage with three-dimensional learning t

Suggested resource:

- **Unit Map**

Try to summarize what the students figure out at the end of the unit.

1

Core Unit Planning & Internalization

Unit Title:	Pushes and Pulls

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 we create a pinball machine for our class!	Pinball Engineers
Unit Question:	**Relationship between the Unit Phenomenon and Unit Question:**
Why do things move in different ways?	Students use their understanding of the phenomena of force and motion to identify pushes and pulls more broadly in their lives.

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

To make a pinball move, they have to exert a strong or weak force on the ball to make it go a further or a shorter distance, in the direction we want it. If we want the ball to change direction, we have to exert another force on it.

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

Suggested resource:

- **Unit Map**

Try to summarize what the students figure out at the end of the unit.

Core Unit Planning & Internalization

Unit Title: Pushes and Pulls

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?

How can we create a pinball machine for our class!

Student Role:

Pinball Engineers

Unit Question:

Why do things move in different ways?

Relationship between the Unit Phenomenon and Unit Question:

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By the end of

To make
further o
we have t

ak force on the ball to make it go a
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Suggested resource:

- **3D Statements**

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

1

Core Unit Planning & Internalization

Unit Title:	Pushes and Pulls

Overview

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

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By the end of To make further o we have t	ak force on the ball to make it go a lf we want the ball to change direction,
How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit?	
Students plan and carry out investigations to determine how force effects the movement of an object, its direction and its distance.	

Suggested resource:

- **3D Statements**

Core Unit Planning & Internalization

Unit Title:	Pushes and Pulls

Overview

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

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

Students plan and carry out investigations to determine how force affects the movement of an object, its direction and its distance.

Navigation Temperature Check

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

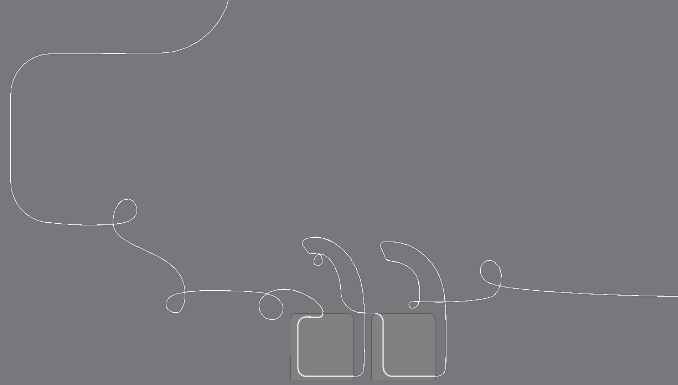
1 = Extremely Uncomfortable

2 = Uncomfortable

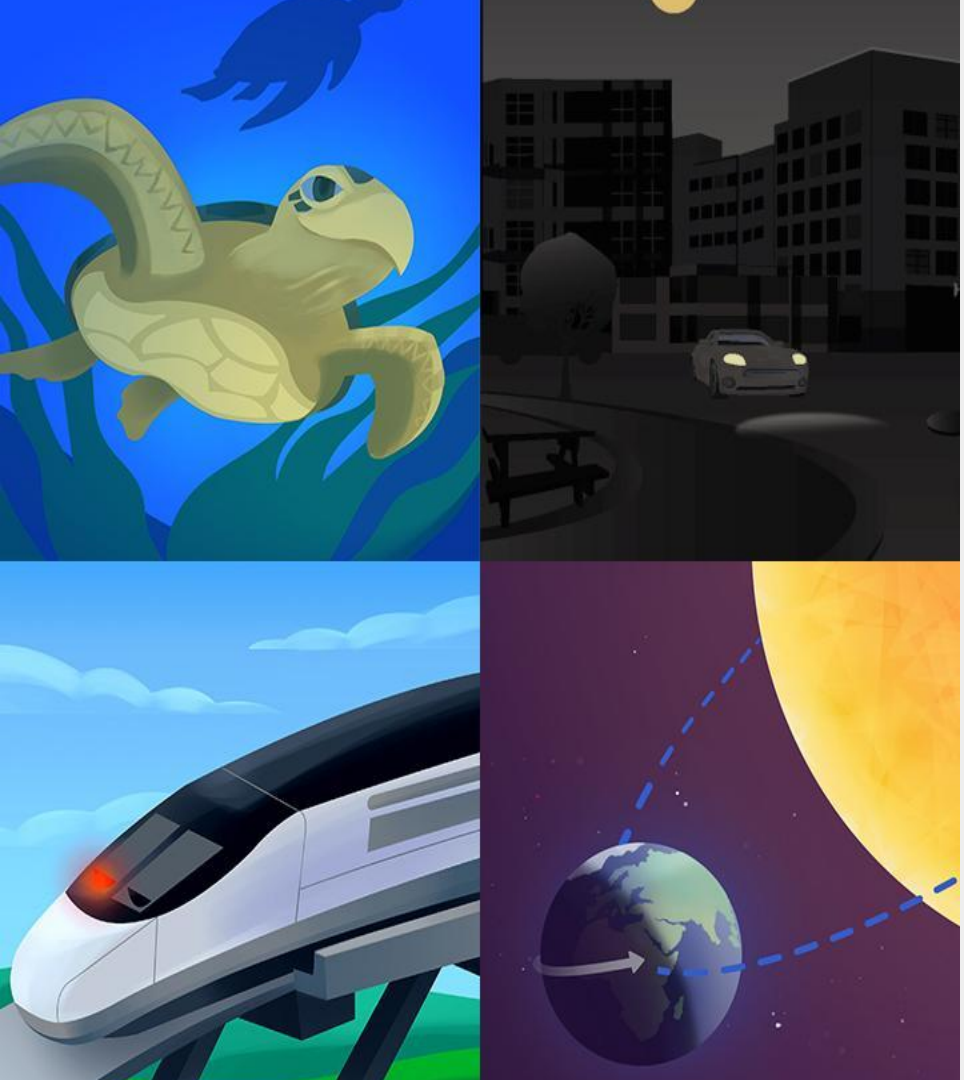
3 = Mild

4 = Comfortable

5 = Extremely Comfortable



Questions?



Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Program Essentials
- Closing

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

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 on today's session!

Presenter name:

Workshop title:

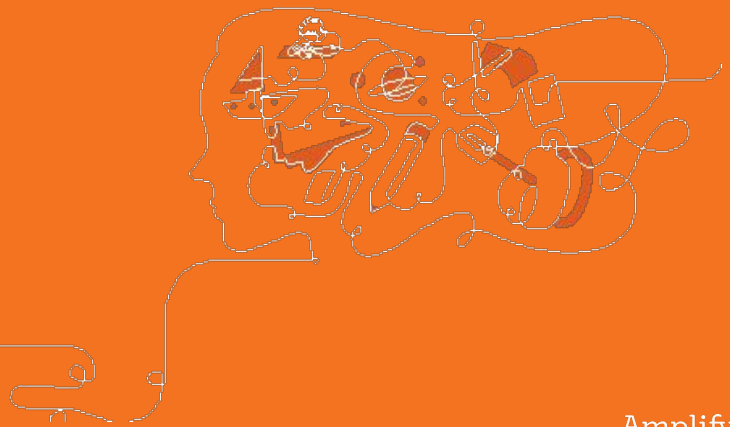
Part 1: Relaunching the Standard Curriculum

Part 2: Guided Planning (Planning for a Lesson)

Modality:

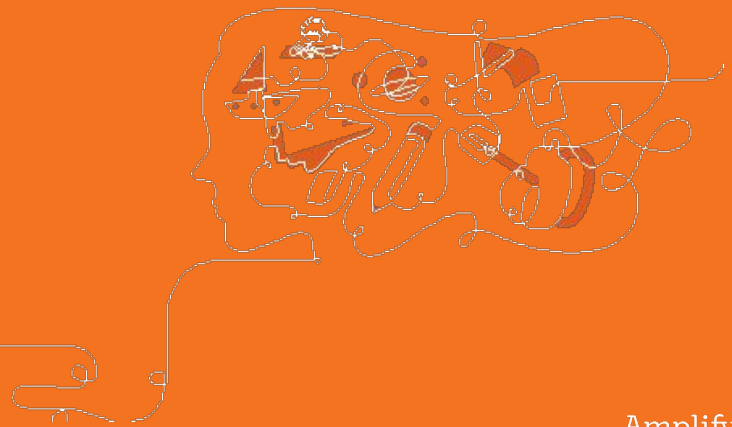
Remote

End of Part 1



Break

10:00 - 10:30

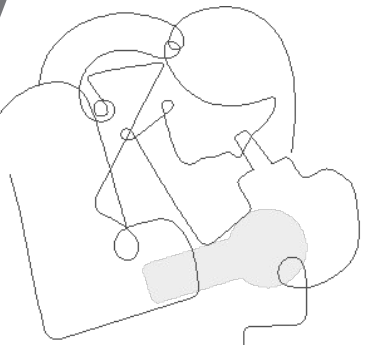


Amplify Science

Standard Curriculum Relaunch / Guided Planning

Grade K: Pushes and Pulls

Part 2



School/District Name: LAUSD
Date:,
Presented by:

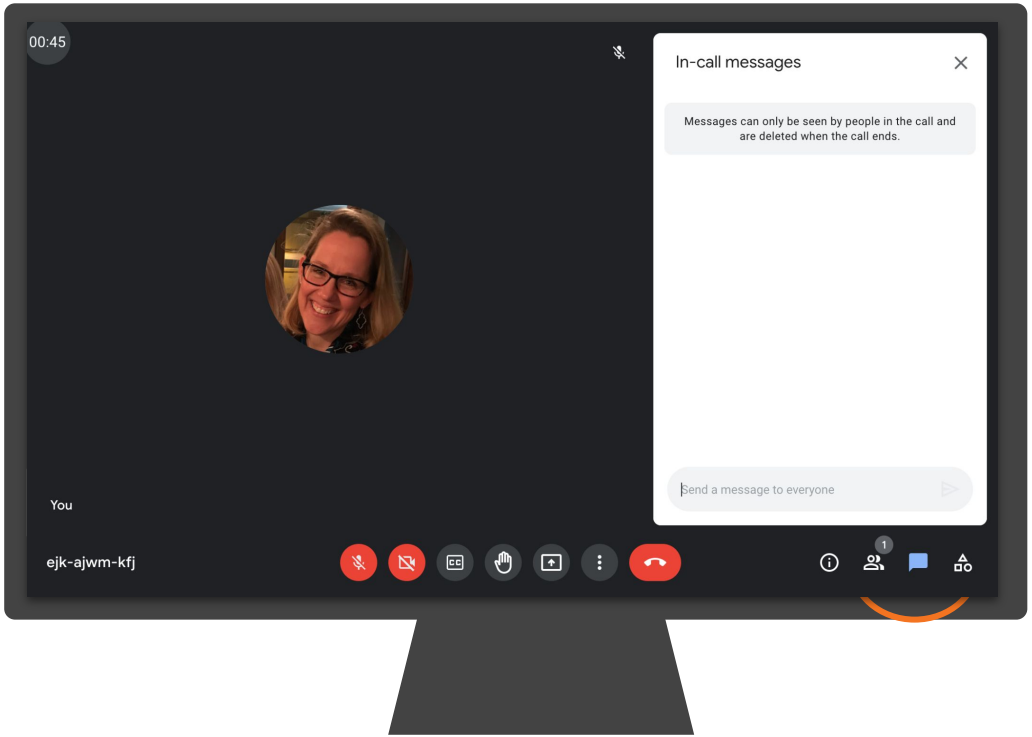
TOP RATED BY EDREPORTS

PLPG CERTIFIED PROVIDER

Ice Breaker!

Who do we have in the room today?

- **Question:** Now that we have gone through Part 1, which aspects of Amplify Science do you feel more comfortable with or have a greater understanding of?



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.

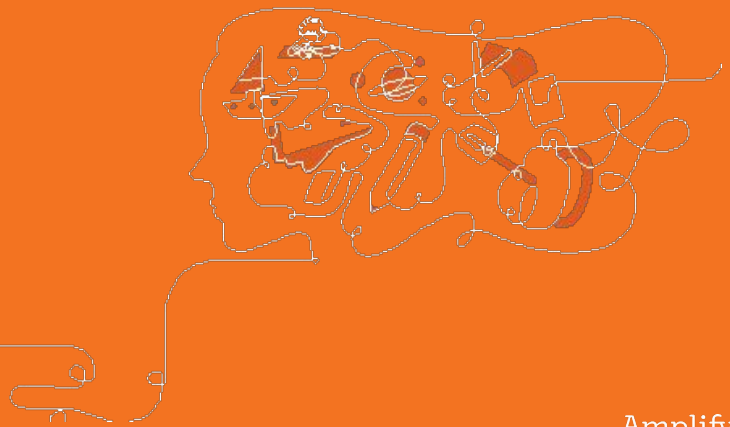
We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

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.

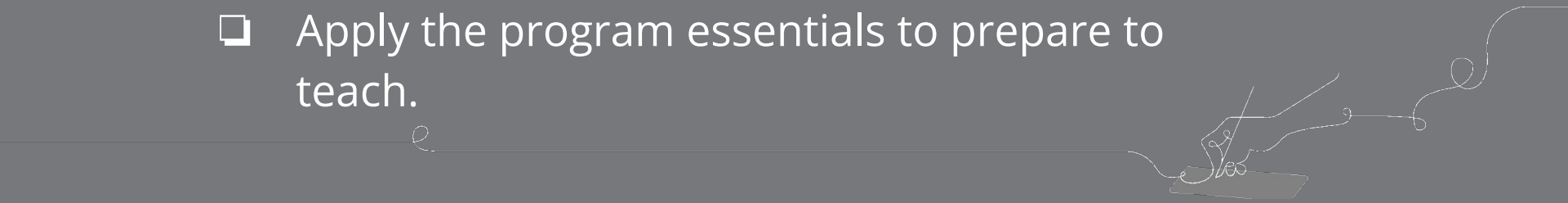
Part 2:
Guided Planning (for a lesson)

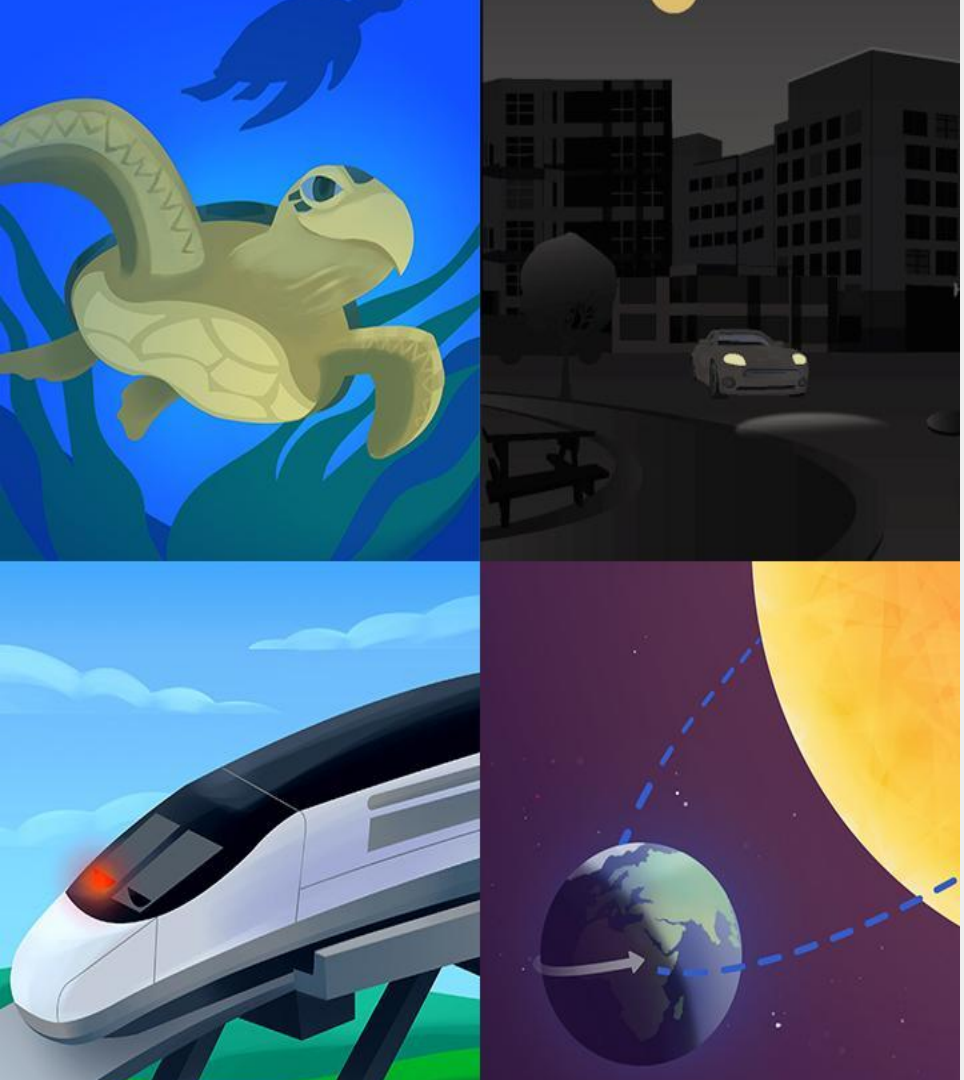


Overarching goals

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

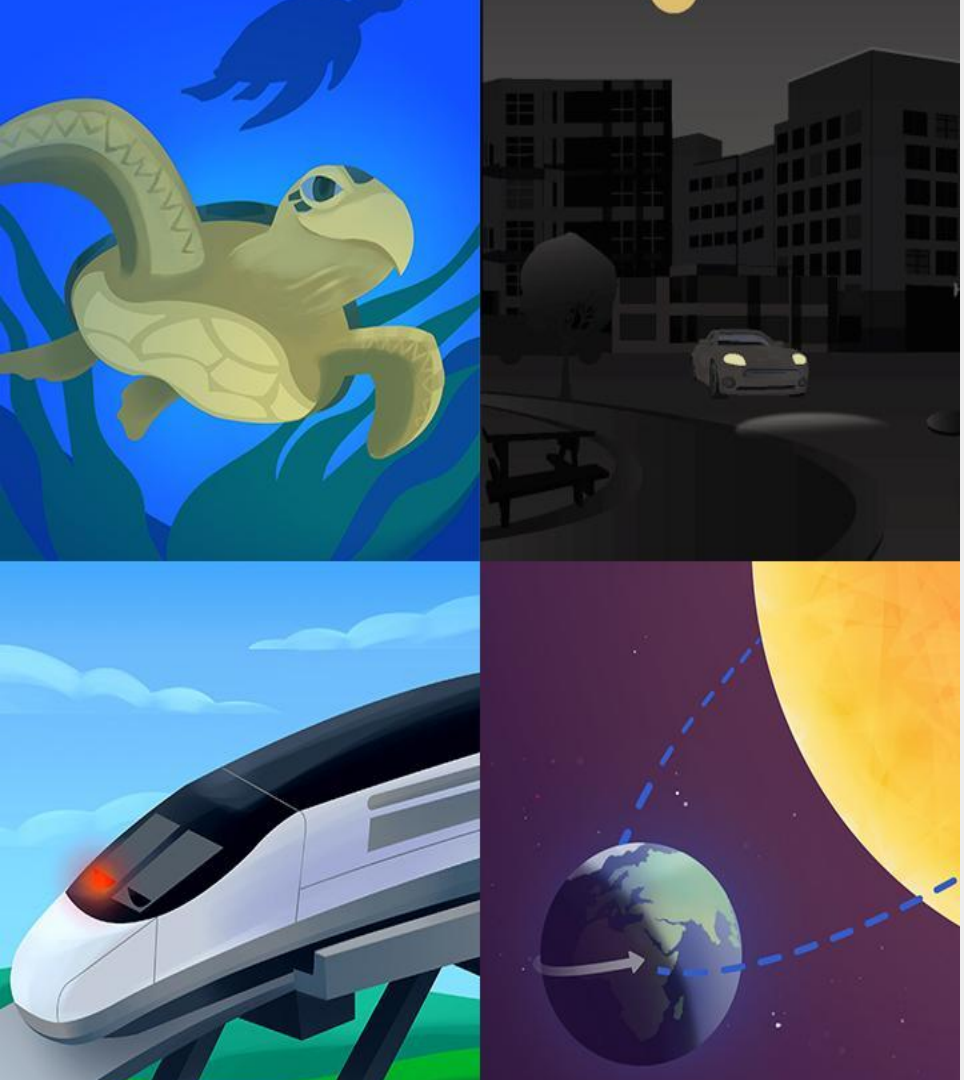
- ❏ Navigate the Amplify Science curriculum.
- ❏ Describe what teaching and learning look like in Amplify Science.
- ❏ Apply the program essentials to prepare to teach.





Plan for the day: Part 2

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



Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
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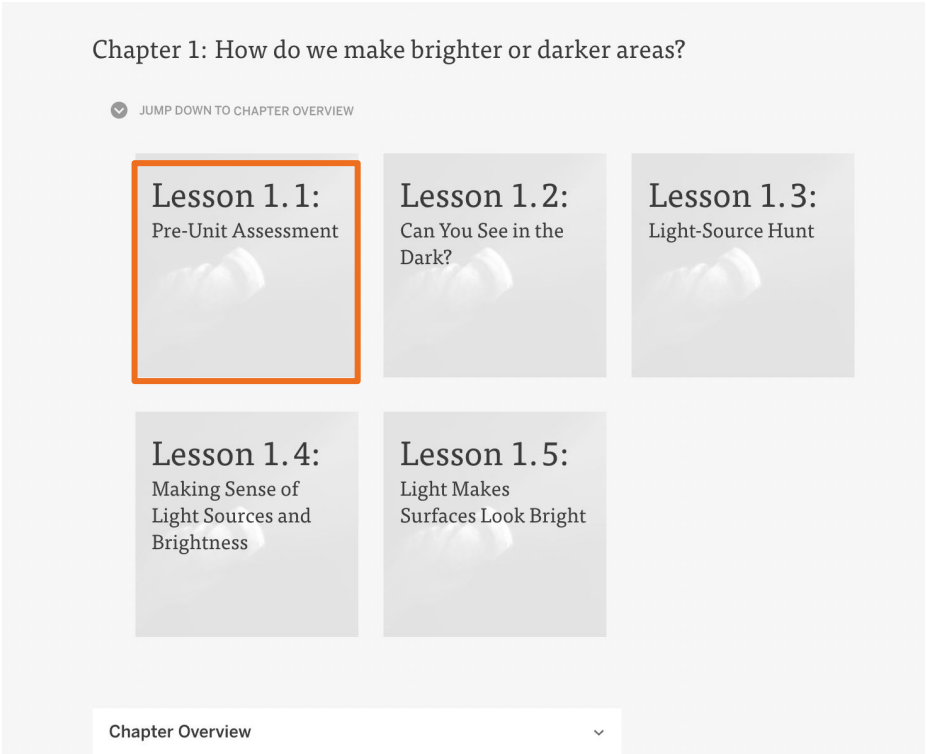
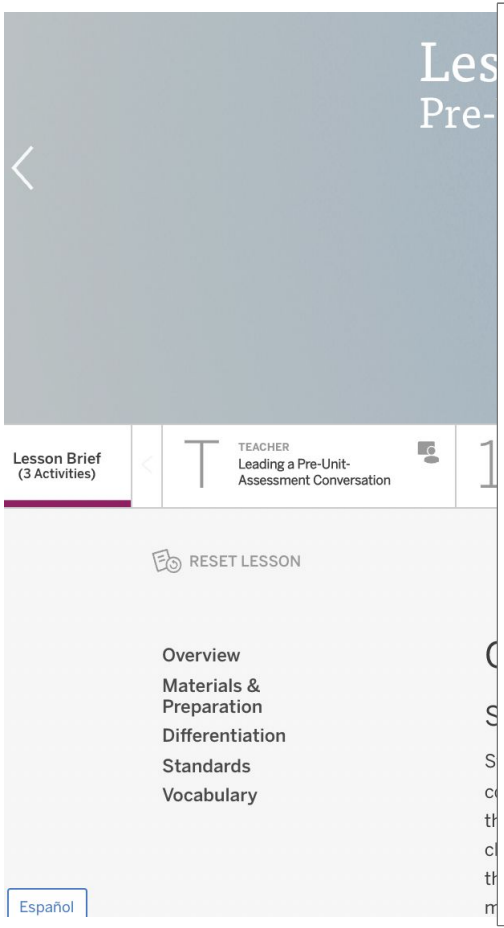
- Closing

Beginning the Unit

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



Pushes and Pulls Family Connection



Pushes and Pulls Family Connections Letter

Dear Families,

In science class, we are working as pinball engineers to design a pinball machine. We'll be working to answer the question, *Why do things move in different ways?*

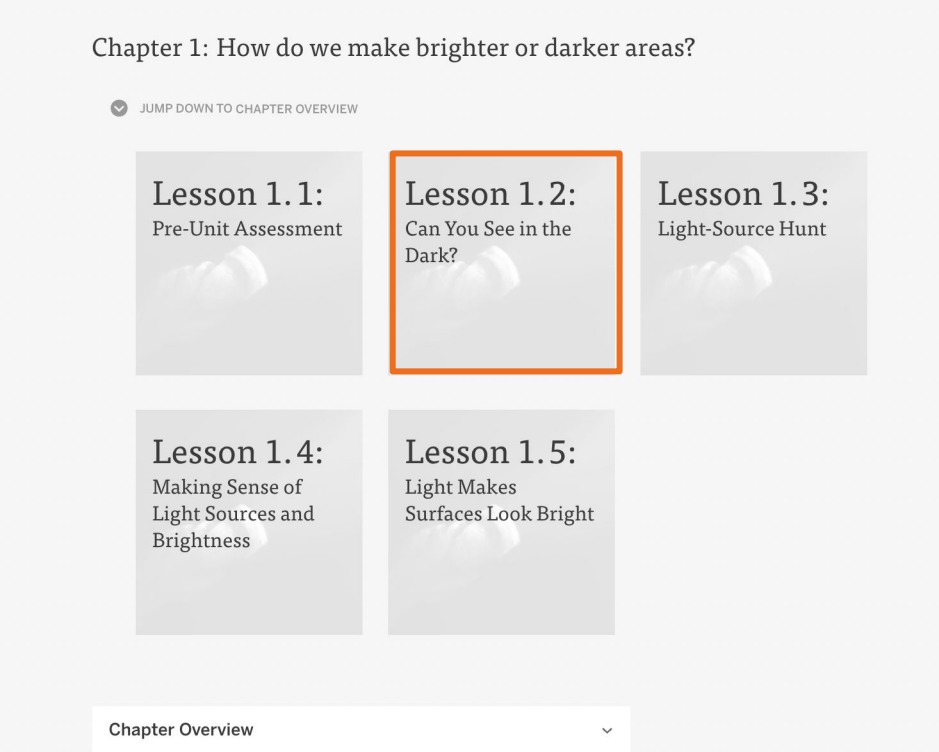
Sharing some of your own ideas, connections, expertise, or stories related to what we will be learning about can help prepare students for their work in science class. It can help students see that what we study in science is connected to their lives, families, and communities.

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

We will be looking at Chapter 1, Lesson 2, for our model lesson.



Grade K | Pushes and Pulls

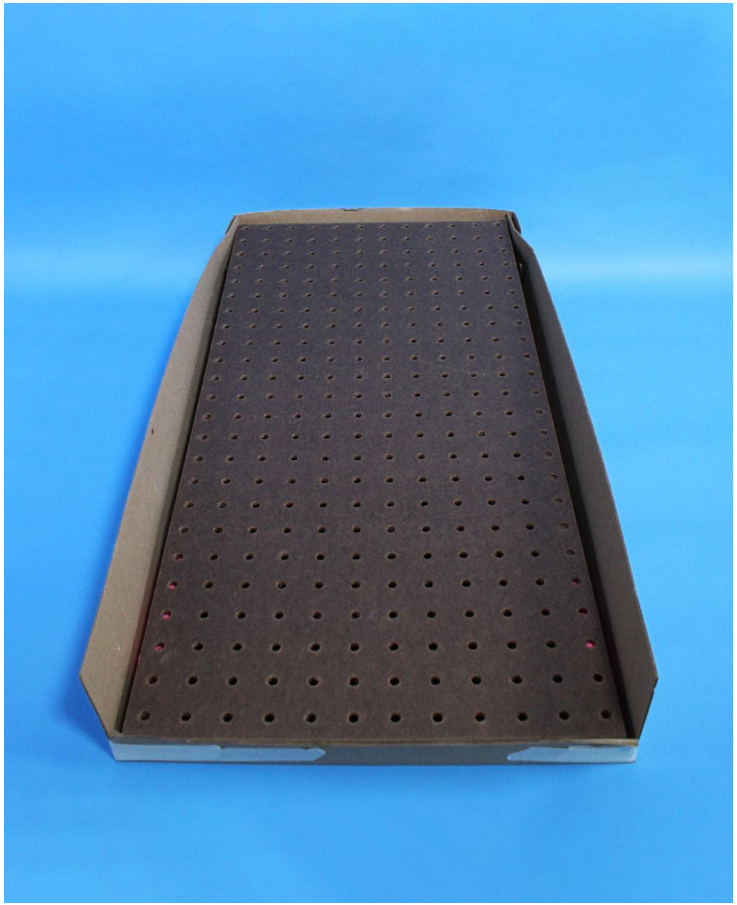
Lesson 1.2: Talking About Forces

AmplifyScience

10 MIN

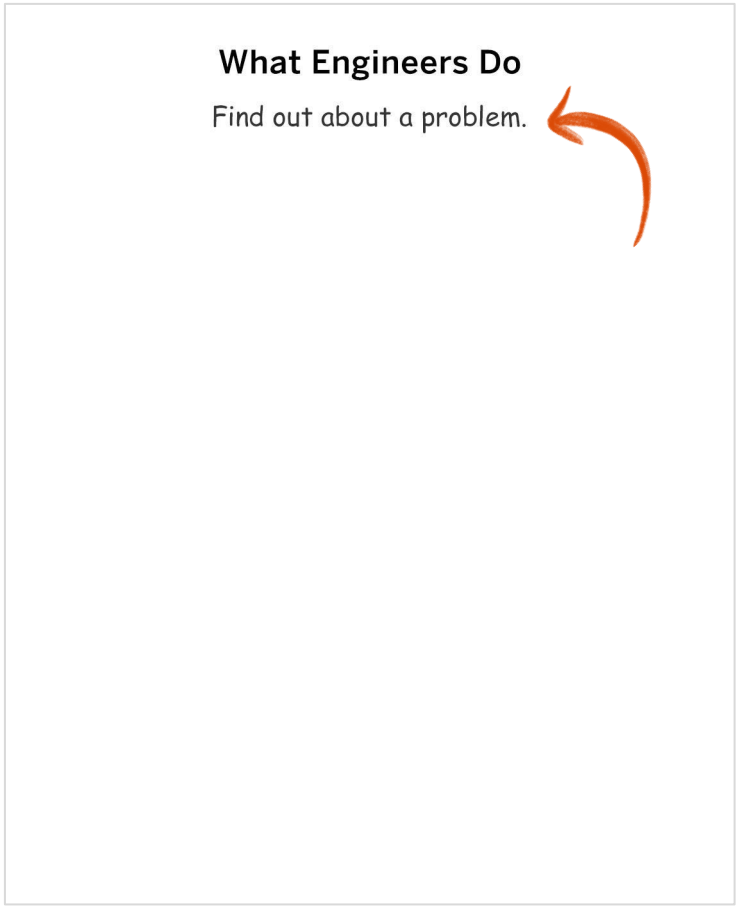
Activity 1

Exploring and Describing Movement



We are **engineers,** and we are working to design a **pinball machine** for our classroom.

We will build our pinball machine in this box.



One thing engineers do is **find out about a problem.**

Our problem is that we need to figure out how to make this pinball machine so that it makes a pinball **start to move.**

Investigation Question:

What makes an object start to move?

In the last lesson, we made objects in the classroom start to move.

What are some **objects** we made move with our bodies?

How did we make those objects **start to move?**

Today, we will play a game called **Rugball.**

This is a game we will play many times as we learn about **movement** and work as **engineers** to design a pinball machine.

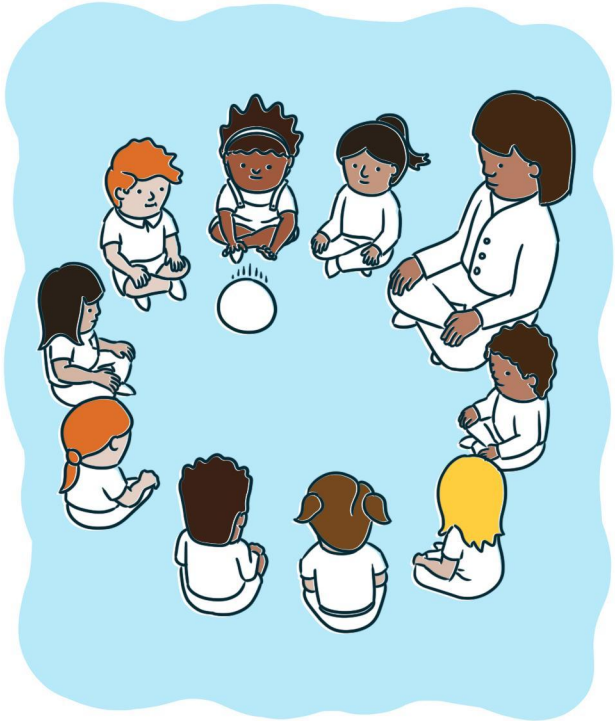
Playing Rugball: Introduction

We are trying to start moving the ball.

1.
Sit in a circle so everyone can see.

2.
Start the ball moving with a push—not a throw or a kick.

3.
Keep the ball in the circle. If the ball goes outside the circle, wait for the teacher to ask a student to get it.



10 MIN

Activity 2

Visualizing Movement

In the Movement Hunt and when we played Rugball, we made **objects** move. I wonder if there are things other than people that can make things start to move.

We will look at pictures that show objects moving and **visualize** what is happening. I will **show you how.**

This is a picture. I cannot see anything moving.

I'll share how I **imagine the movement** to better understand what is happening.

I will show you some more pictures. For each one, **visualize** what is happening.

Think about **what is moving,** and **what is making that object move.**

You can also **act out** out what is happening with your body.

Engineers work together to learn more about the things they study.

As you look at the pictures share your ideas with your partner and talk about how to answer this question: **What movements did you visualize in the picture?**

Vocabulary

visualize

to make a picture in your mind

10 MIN

Activity 3

Explaining with Because

We explored making the rugball move and visualized how different objects were moving in pictures. Now, we are going to **try some movements** of our own to practice talking about them like scientists and engineers.

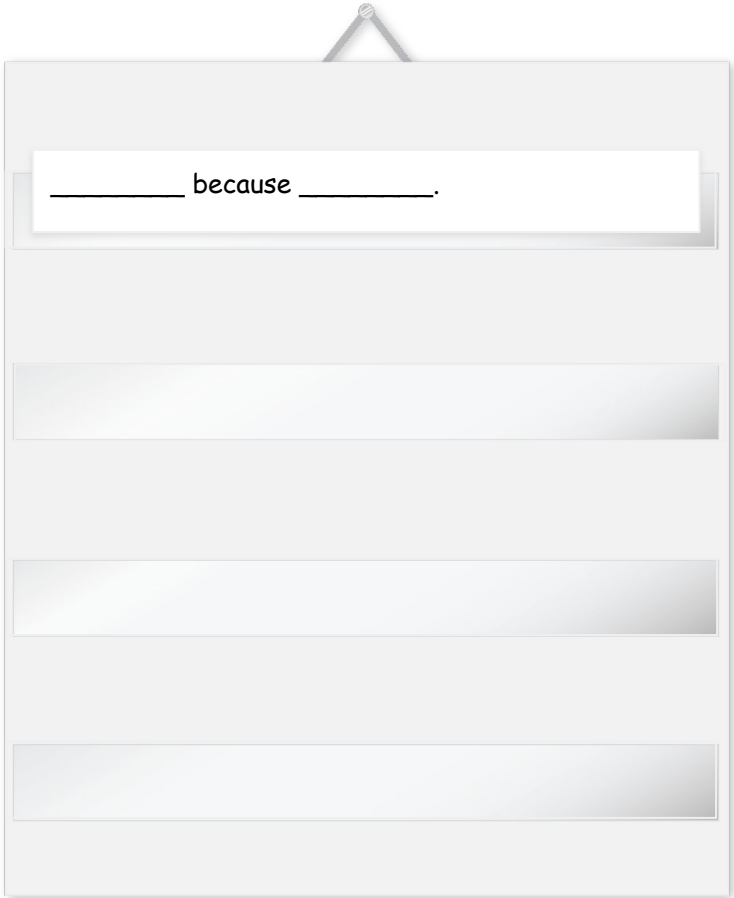
Scientists and engineers use the word **because** to explain why something happened.

I am going to **stand on one foot.** Watch my movements carefully.

_____ because _____.

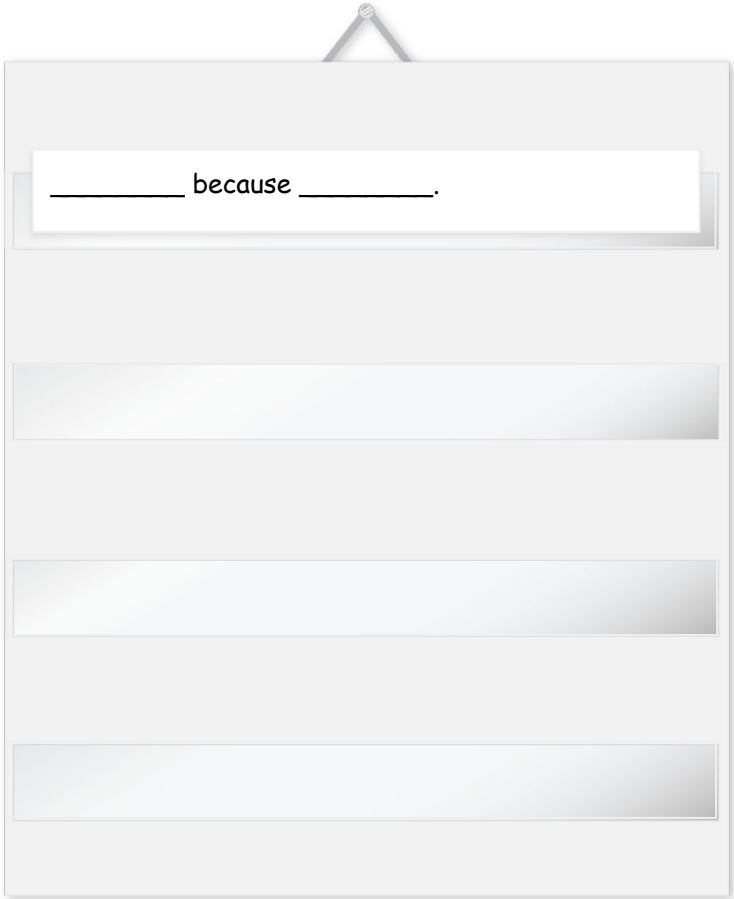
We can explain what happened and why with "because."

What happened when I tried to **balance?**



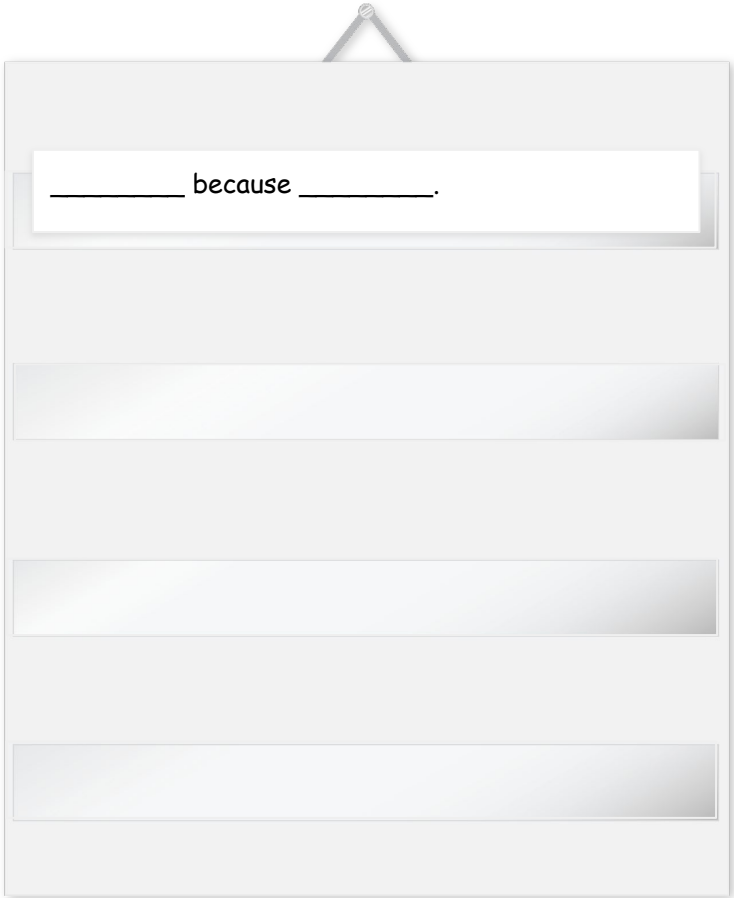
I tipped over **because** I stood on one foot.

The word **because** means that the first part of what I said made the second part happen.



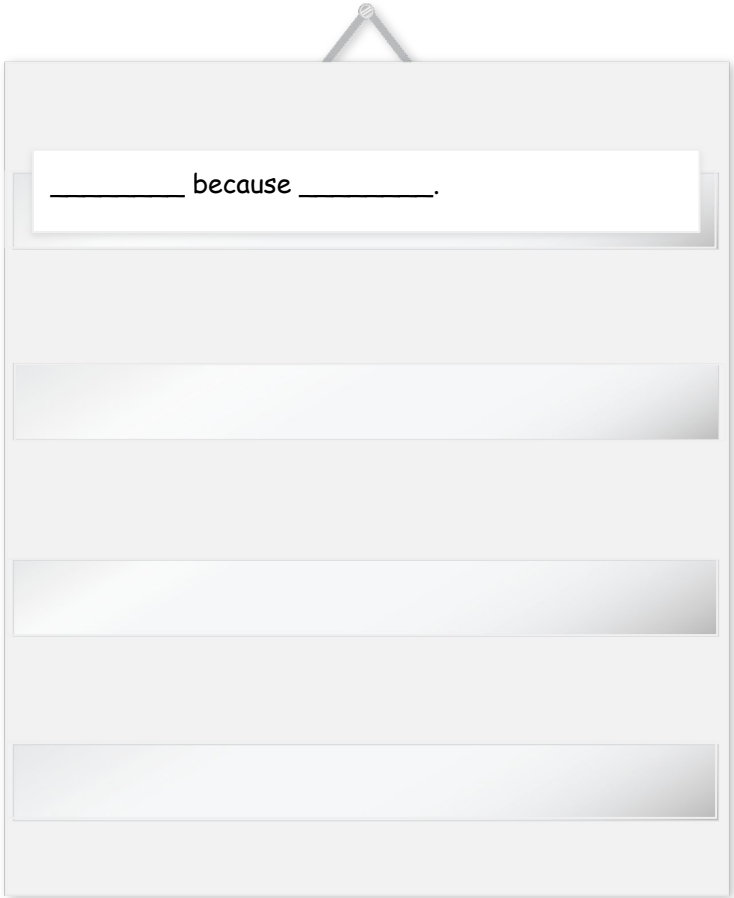
Let's try a different movement together.

Run in place.



Let's make a sentence about it.

Raise your hand if you **feel tired** or **out of breath.**

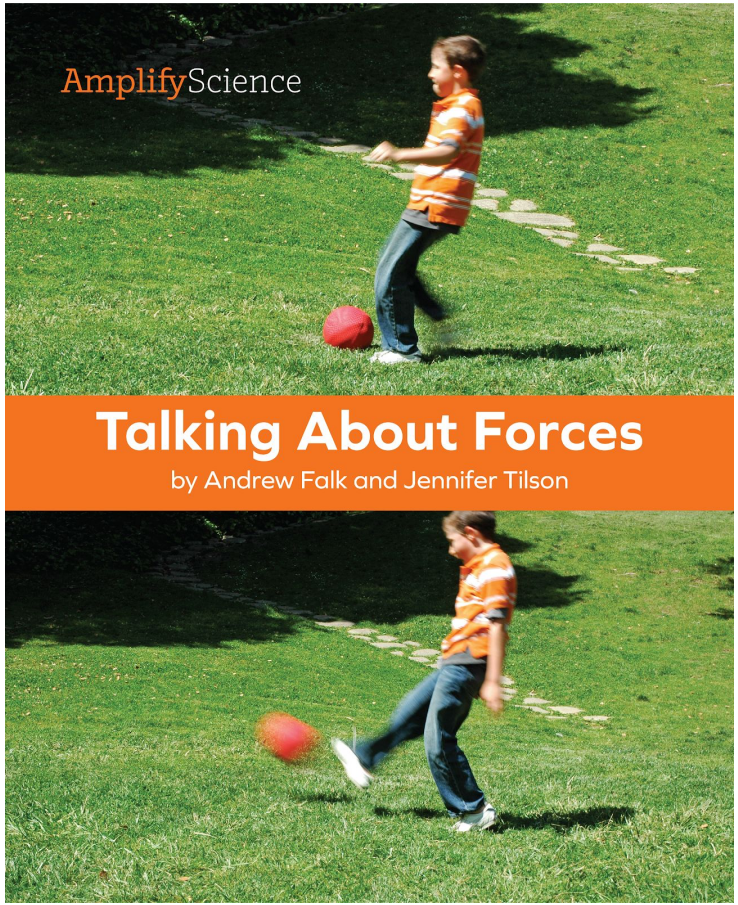


Let's try out a few more examples, and make sentences explaining what happened with **because.**

15 MIN

Activity 4

Reading: Talking About Forces



This book is called *Talking About Forces*. We will read to find out more about **forces.**

We will **visualize** what is happening in the pictures and words.

It was a beautiful day at the park! Everywhere you looked, there were kids making things move.

We have many ways of talking about what happens when one thing makes another thing move.

Scientists and **engineers** have their own way of **explaining** what is happening. They talk about **forces**. They say that when one thing makes another thing move, it **exerts** a force on it.

Let's see some examples!

Scott pushed Francis on the swing, and Francis moved. She sailed forward in the swing, high into the air.

What would a scientist or engineer say happened here?

Here is what a scientist or engineer would say:

Francis moved because Scott exerted a force on her.

Faheem jumped into the wagon and asked for a ride. Francis pulled on the handle of the wagon, and the wagon rolled up the hill with Faheem in it!

What would a scientist or engineer say happened here?

Here is what a scientist or engineer would say:

The wagon and Faheem moved because Francis exerted a force on the wagon.

Mia and Scott played catch in the field. When it was her turn to throw, Mia threw the ball and it flew away from her.

What would a scientist or engineer say happened here?

Here is what a scientist or engineer would say:

> The ball moved because Mia exerted a force on the ball.

Another ball was sitting on the grass. Jess ran up and kicked the ball. Wham! The ball bounced away over the grass. Jess scored a goal!

What would a scientist or engineer say happened here?

Here is what a scientist or engineer would say:

The ball moved because Jess exerted a force on the ball.

The kids had fun playing in the park and making things move. A scientist or engineer would agree that they had fun playing in the park. A scientist or engineer might also say they exerted forces on lots of **objects** in the park!

Scientists and engineers know that any time you see an object start to move, it is because another object exerted a force on it. When you see one object start to move, look for the other object that made it move. Forces always happen between two objects.

We are really starting to talk like **pinball engineers!**

In the next lesson, we will keep figuring out how **forces** work, so we can get ready to start working on our pinball machines.

End of Lesson

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

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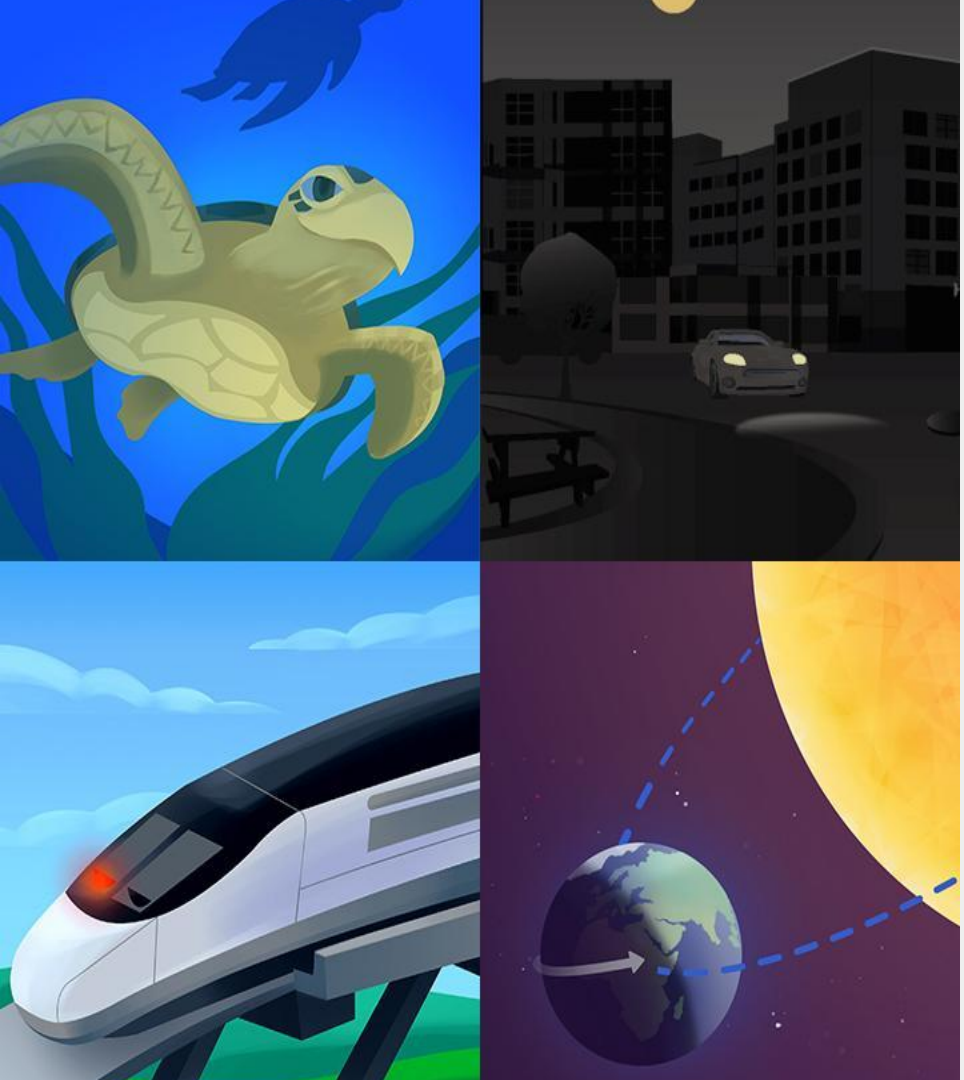


Plan for the day: Part 2

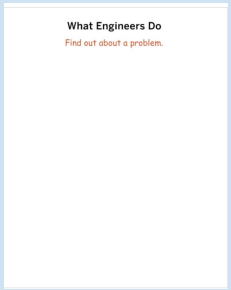
- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

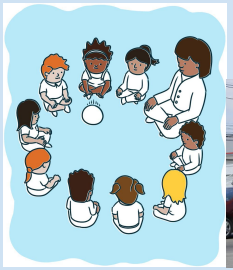
Gathering evidence

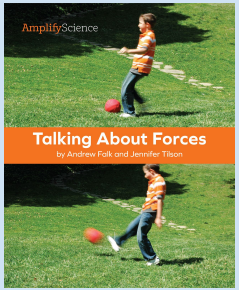
Pushes and Pulls 1.2

How do we make a pinball start to move?

What makes an object start to move?





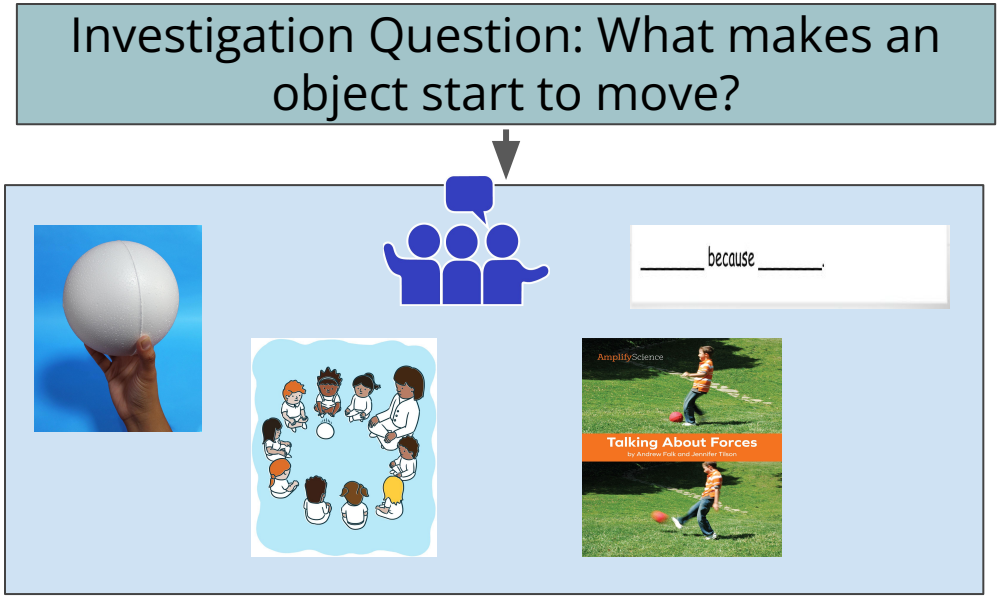


What have students figured out so far?

Evidence sources work together

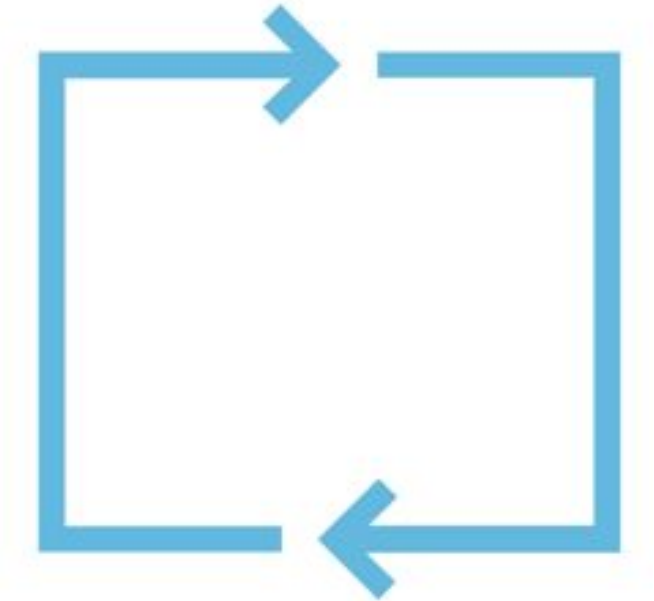
Investigating and discussing observations

How do these activities **work together** to support understanding of what makes an object move?



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

↓

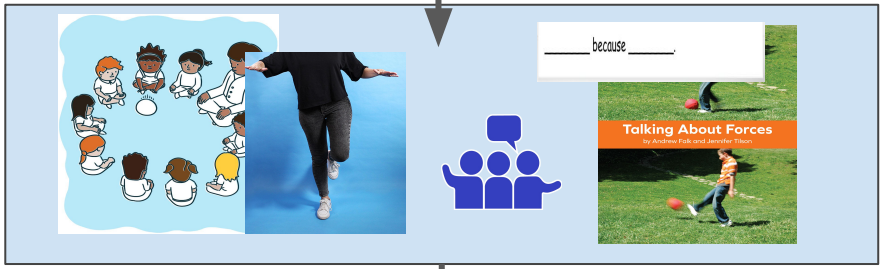
Key Concepts

Chapter Question: How do we make a pinball start to move?

↓

Investigation Question: What makes an object start to move?

↓



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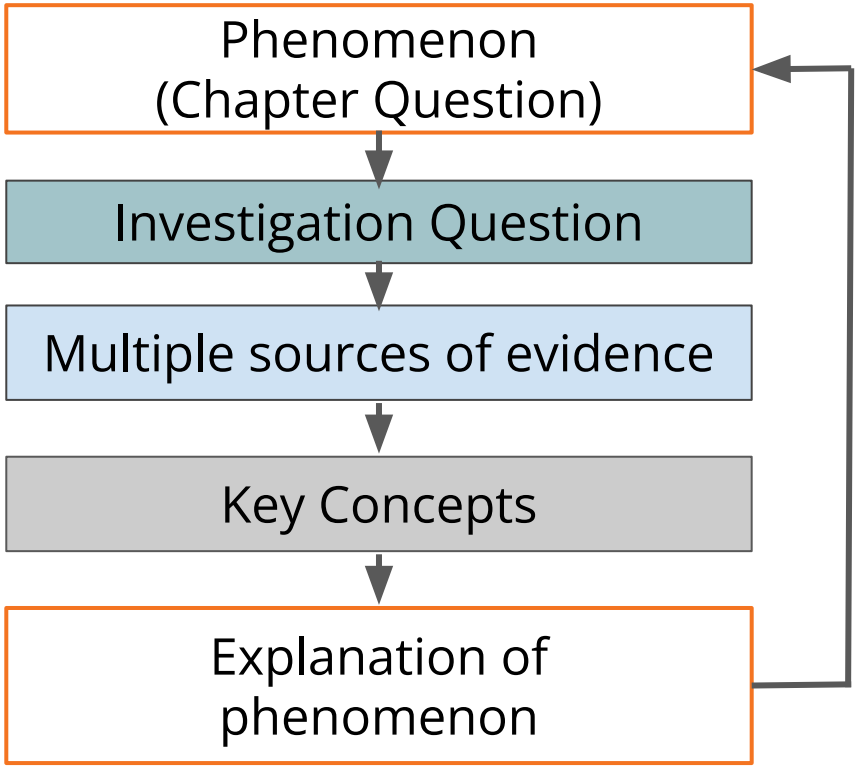
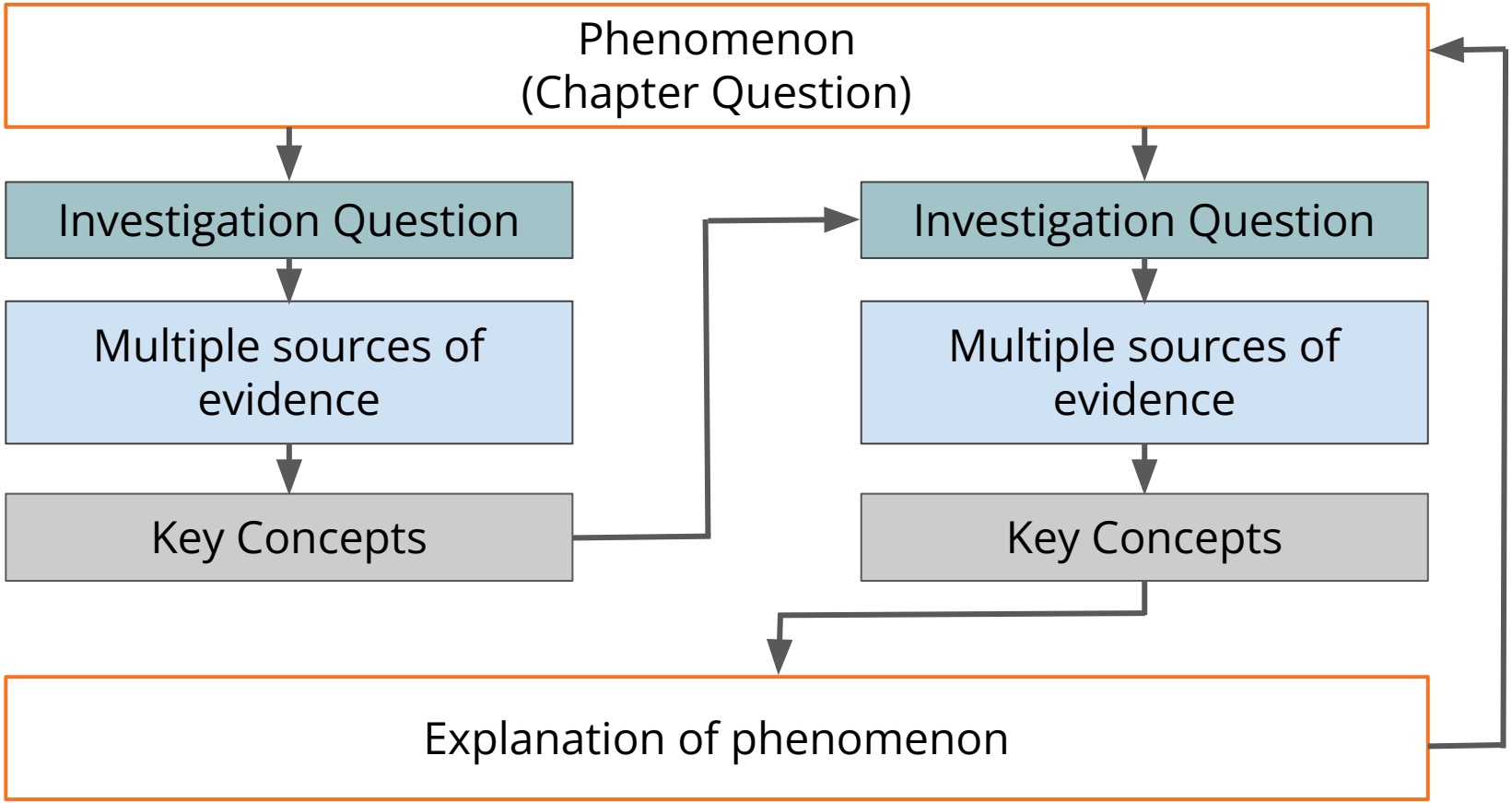
Students figure out: An object starts to move when another object exerts a force on it. Forces happen between two objects..

Coherence Flowchart

A diagram of student learning



Coherence Flowchart



Pushes and Pulls: Designing a Pinball Machine

Unit Design Problem

Problem students work to solve

We want to create a pinball machine that lets us control the way a pinball moves.
How can we create a pinball machine for our class?

Chapter-level Anchor Phenomenon
Chapter 1 Question

Sometimes a pinball starts to move.
How do we make a pinball start to move?

Investigative Phenomena
Investigation Questions

Sometimes an object starts to move.

What makes an object start to move? (1.1-1.4)

Evidence sources and reflection opportunities

- Investigate how to make objects start to move in a classroom Movement Hunt (1.1)
- Investigate making an object start to move in full-class Rugball routine (1.2)
- Use recognizable images of objects moving to visualize movement (1.2)
- Practice using cause and effect to explain everyday scenarios (1.2)
- Read Talking About Forces (1.2)
- Investigate how to make an object move by exerting a force on it using Forces Investigation materials (1.3)
- Use Explanation Language Frame to explain forces and movement in Forces Investigation (1.3)

Key concepts

- An object starts to move when another object exerts a force on it. (1.3)
- Forces happen between two objects. (1.3)

Application of key concepts to problem

- Design launchers to make a pinball start to move in individual student Box Models (1.4)
- Diagram Box Model launcher design (1.4)
- Add a launcher to make the pinball start to move in Class Pinball Machine (1.5)
- Shared Writing to explain the Chapter 1 Question (1.5)
- Revisit Talking About Forces to use Explanation Language Frame to explain how objects move in the text (1.5)

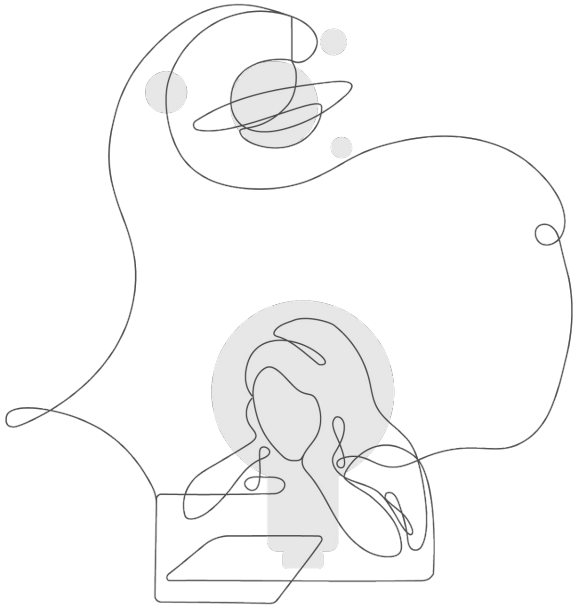
Explanation that students can make to answer the Chapter 1 Question

To make our pinball start to move, we must exert a force on the pinball. We can use a rubber band launcher to exert a force on the pinball.

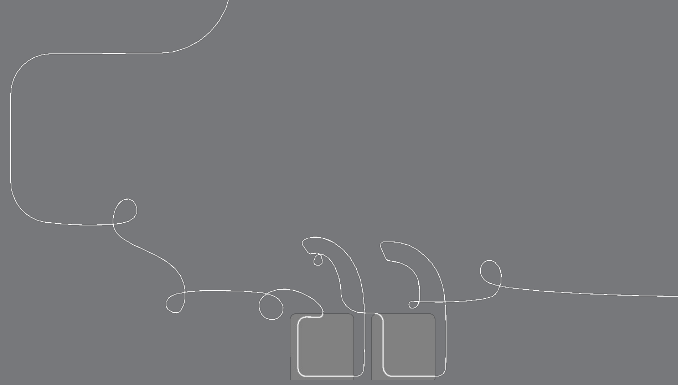
Explore the Coherence Flowchart

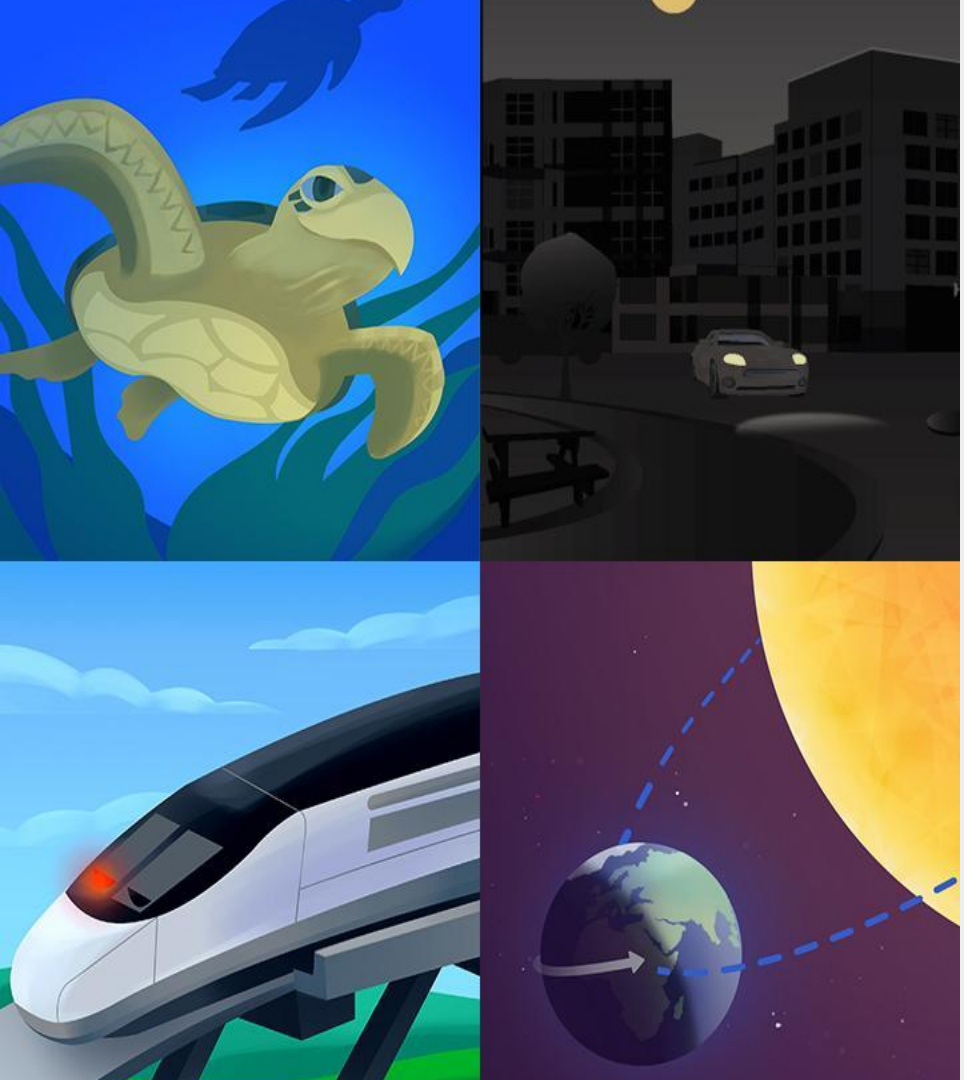
Skim the Chapter 1 Coherence Flowchart of your first unit.

How can the Coherence Flowchart serve you as a planning tool as you begin teaching Amplify Science?



Questions?

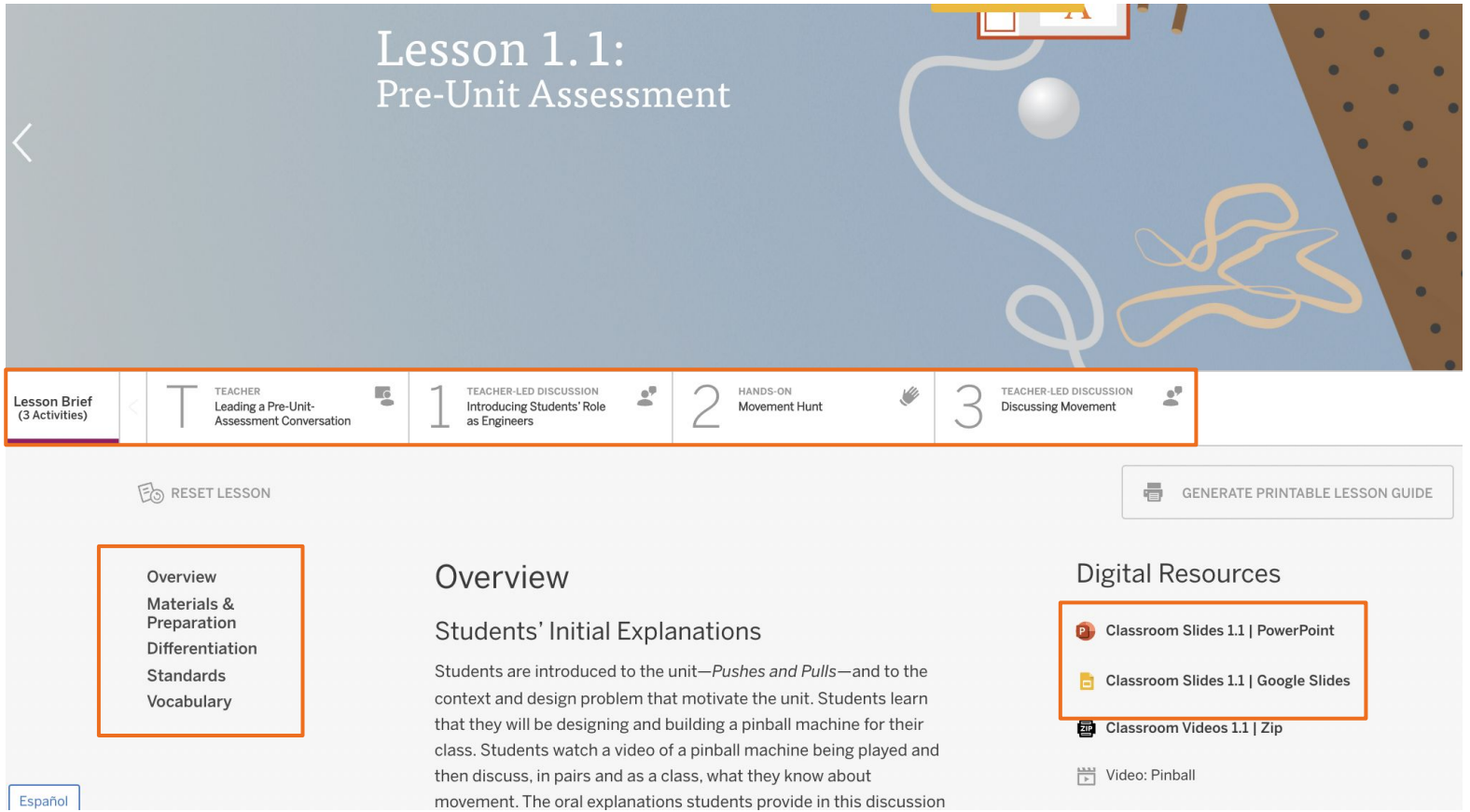




Plan for the day: Part 2

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

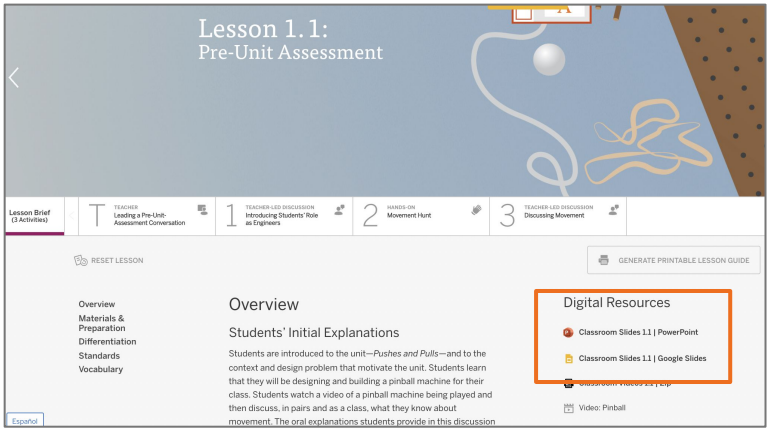
Navigate to the Lesson Brief



Preparing to teach

Classroom Slides

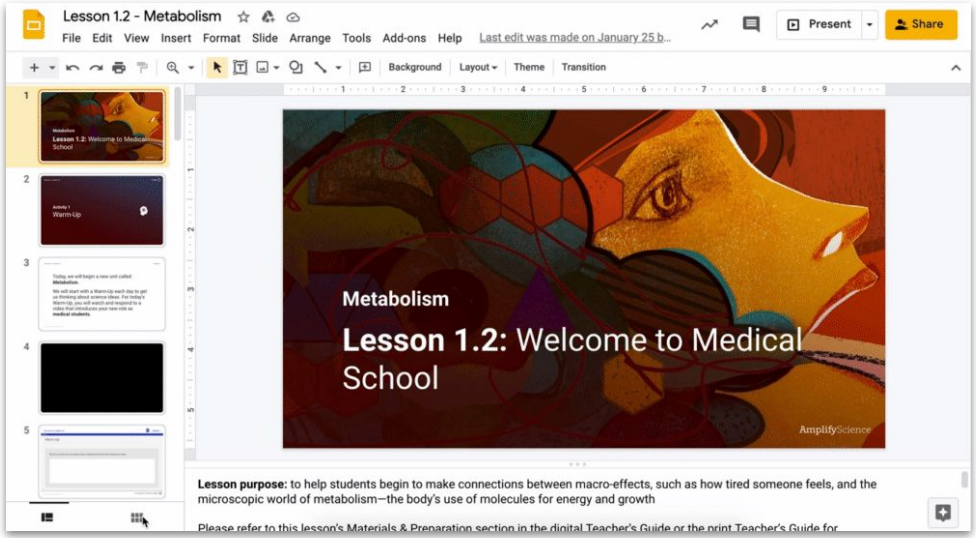
1. Open the **Classroom Slides** under the **Digital Resources**.
2. Read through the Classroom Slides including the **presenter notes** to gain a better understanding of the lesson.
3. **Consider:**
    - What features of the Classroom Slides will support you in teaching this lesson?



Using Classroom Slides as a planning tool

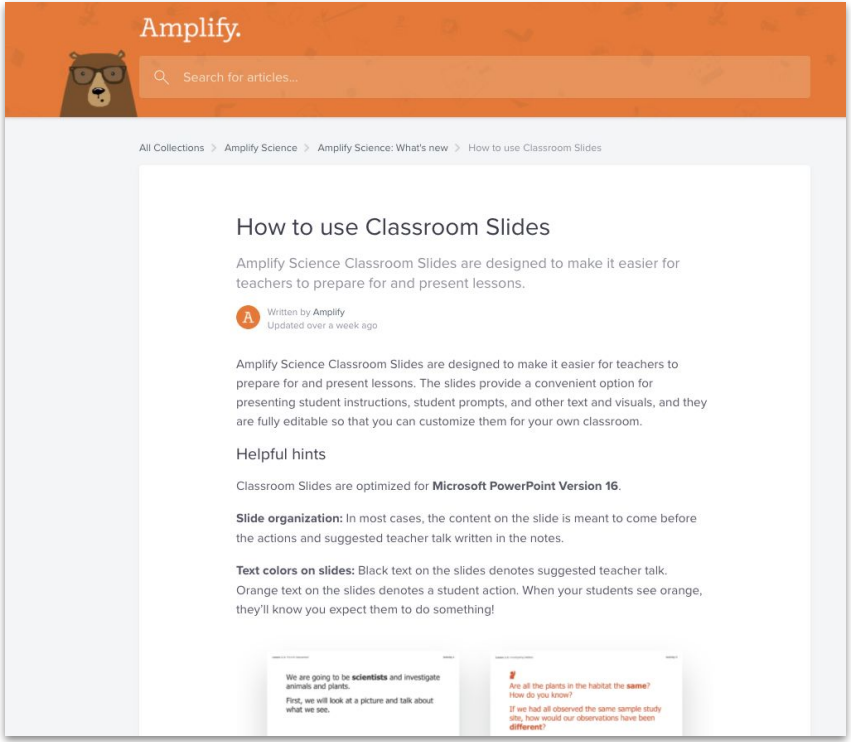
Teacher tip: Classroom Slides are a great visual summary of a lesson. Many teachers download and flip through a lesson's Classroom Slides deck to preview what happens in the lesson.

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



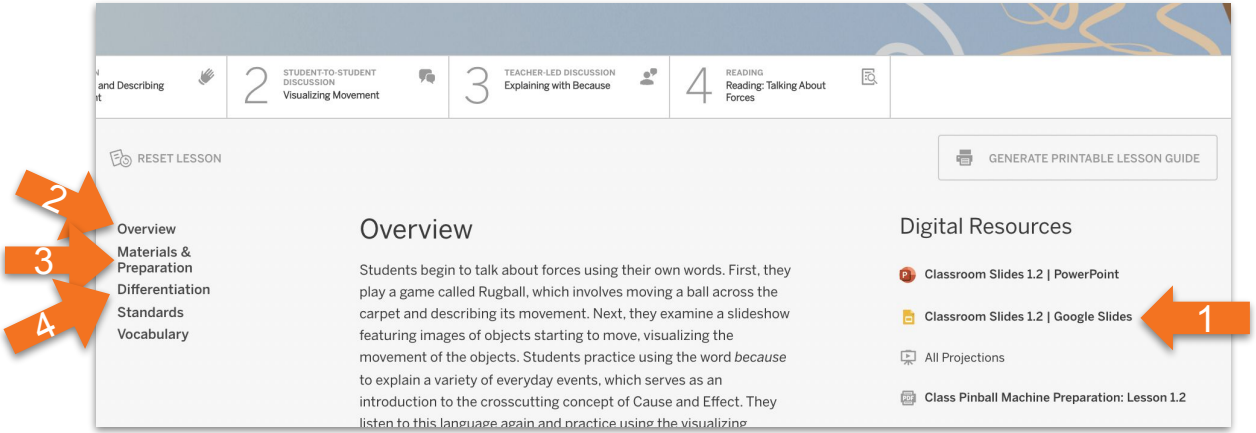
Teaching with Classroom Slides

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.



4 Steps for Starting Your Lesson

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



Lesson __	Activity Overview	
What is the purpose of this lesson? Access prior knowledge about rocks. Make observations of rocks.	**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)**	

Lesson 1.2	Activity Overview	
What is the purpose of this lesson? The purpose of this lesson is to connect students' discoveries about movement with scientific language, which, in turn, prepares them for explaining forces when they build their Box Models to test how a pinball machine works.	**Activity 1 (10 min)**	Exploring and Describing Movement
What will students learn? •An object starts to move when another object exerts a force on it •Visualizing is making a picture in your mind and it can be used to notice forces. •Scientists often talk about how things are connected. •Scientists and engineers search for cause and effect relationships to explain natural events.	**Activity 2 (10 min)**	Visualizing Movement
3-D Statement (identify SEP, CCC, and DCI): Students observe ball movements to construct explanations through discussion, and by using a *because* Explanation Language Frame, to think about *cause and effect*. They obtain information from *Talking About Forces* about how scientists describe pushes and pulls using scientific language (cause and effect).	**Activity 3 (10 min)**	Explaining with Because
Student Resources: n/a	**Activity 4 (15 min)**	4: Reading: Talking About Forces
Assessment Opportunities: On-The-Fly, Activity 2	**Activity 5 (## min)**	

Remember to plan for…

Student work:

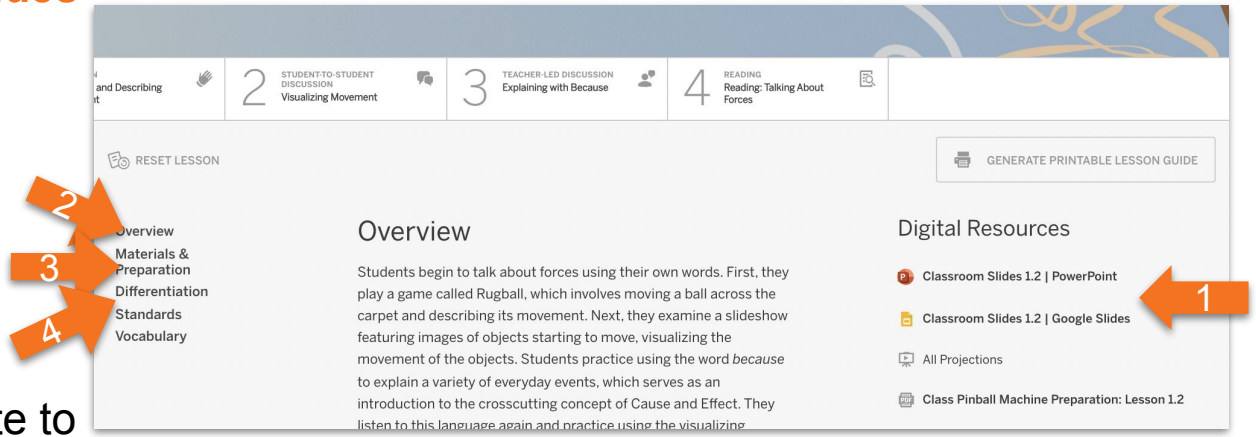
- How do you plan to collect evidence of student work?

Differentiation:

- How do you plan to differentiate the lesson for diverse learners?

4 Steps for Starting Your Lesson

1. Download **Classroom Slides** and review them.
2. Read the **Overview**.
3. Review the **Materials & Preparation** document.
4. Read the **Differentiation** document.
5. If you have time, navigate to **Lesson 1.3** and repeat steps 1-4.



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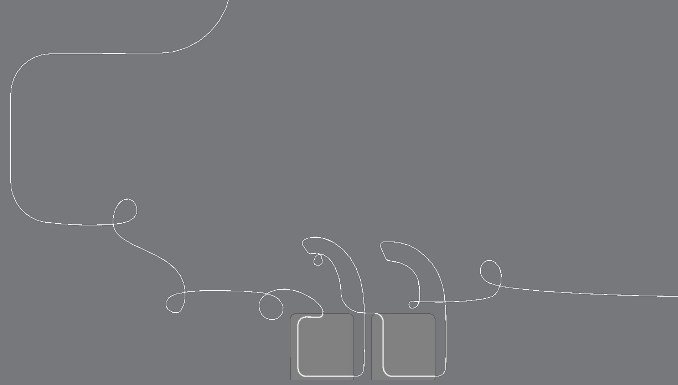

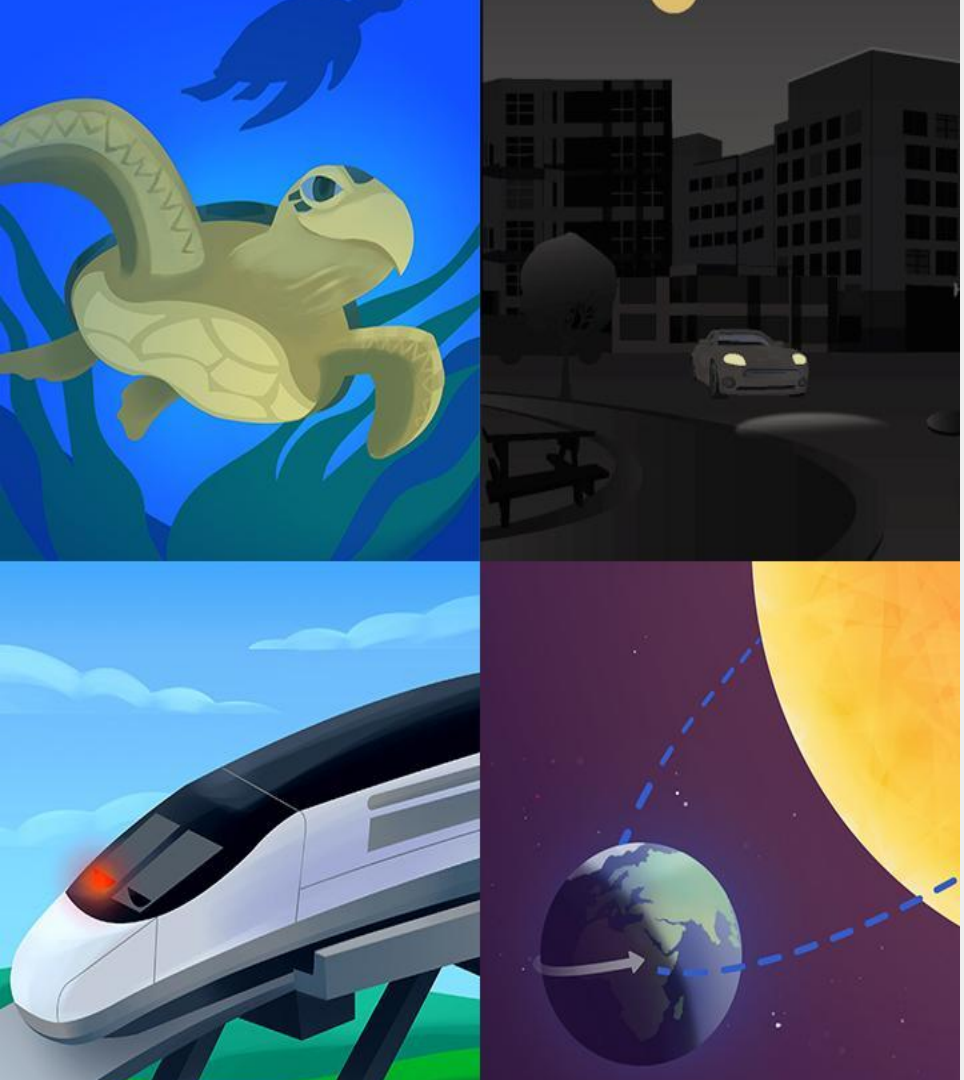

Plan for the day: Part 2

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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

TOP RATED BY EDREPORTS

Grades 6-8

[Caregivers]

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

Welcome to Amplify Science!

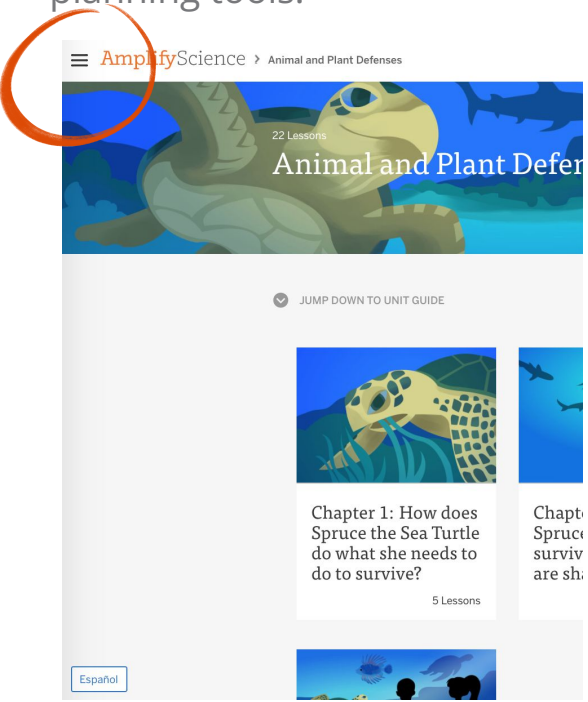
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

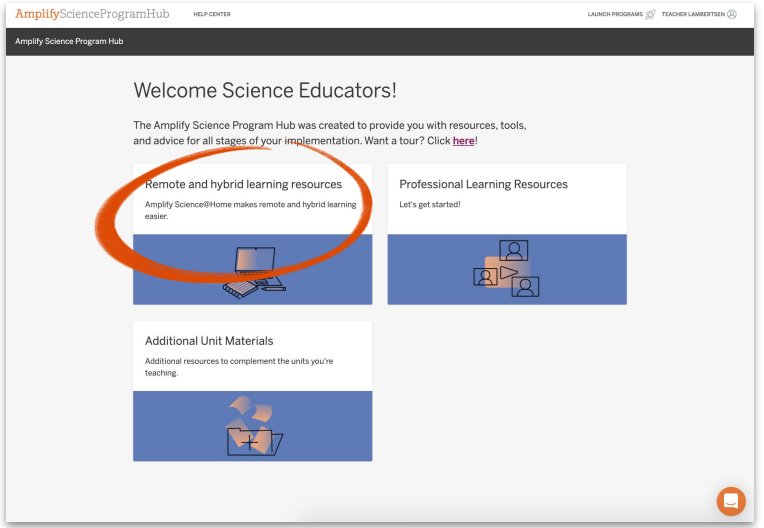
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
-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

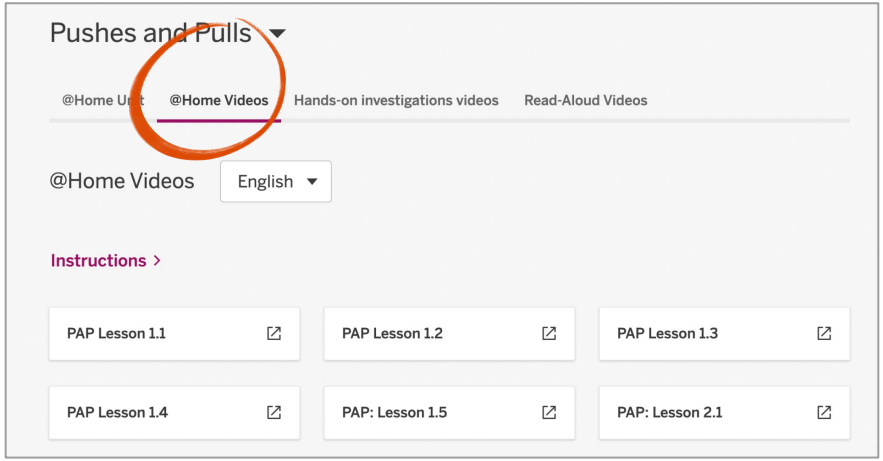
Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Program Hub

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



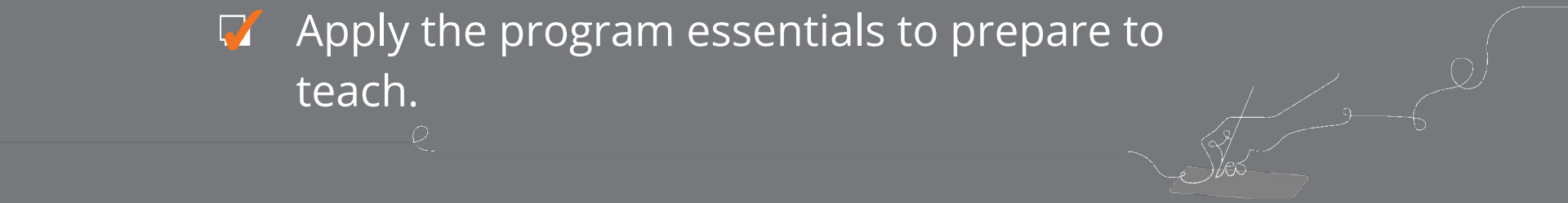




Overarching goals

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

- ☑ Navigate the Amplify Science curriculum.
- ☑ Describe what teaching and learning look like in Amplify Science.
- ☑ Apply the program essentials to prepare to teach.



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

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!

Presenter name:

Workshop title:

Part 1: Relaunching the Standard Curriculum

Part 2: Guided Planning (Planning for a Lesson)

Modality:

Remote