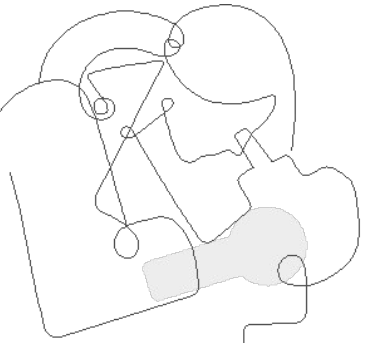
Amplify Science

New Teachers: Part 2
Unit 1 - Guided Planning

Grade 5: Patterns of Earth and Sky



School/District Name: LAUSD
Date:
Presented by: Jolene Hori

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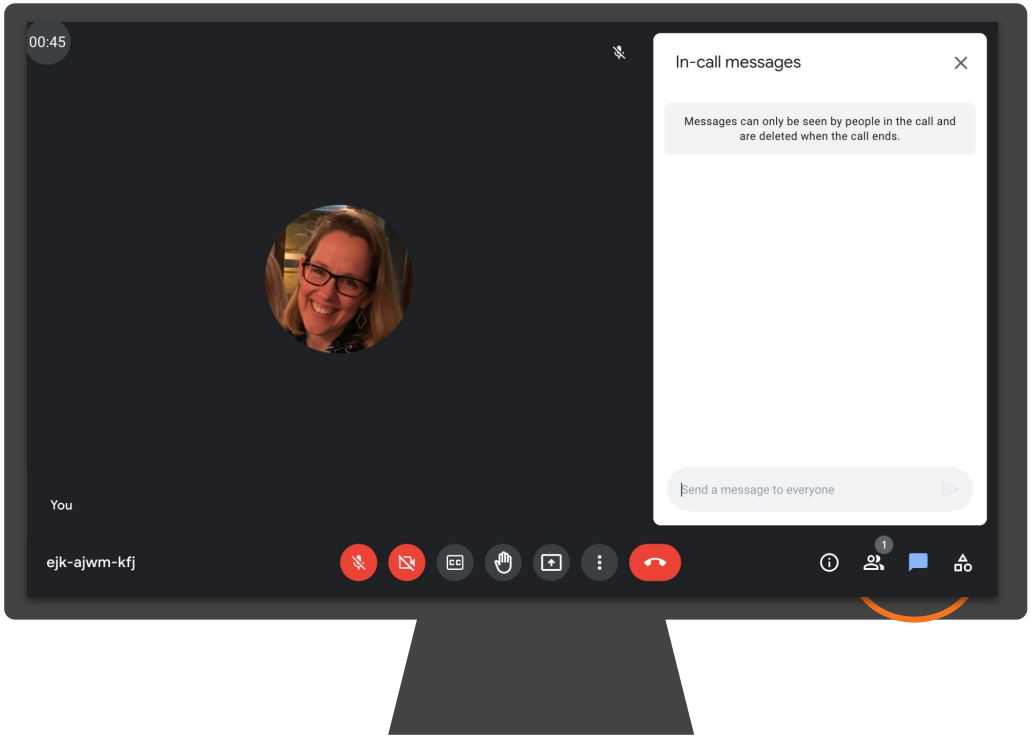
Ice Breaker!

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.

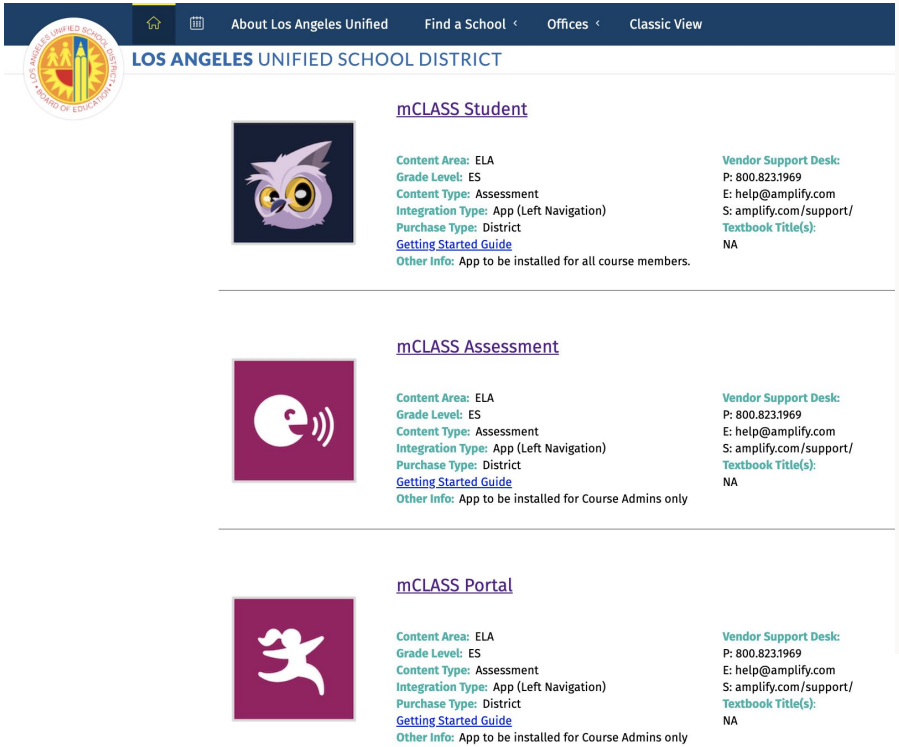
We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

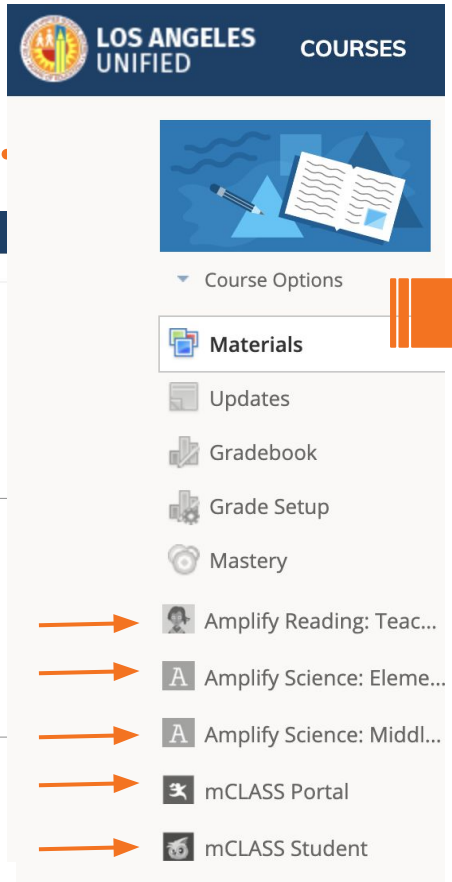
Sincerely,
Amplify

Norms: Establishing a culture of learners

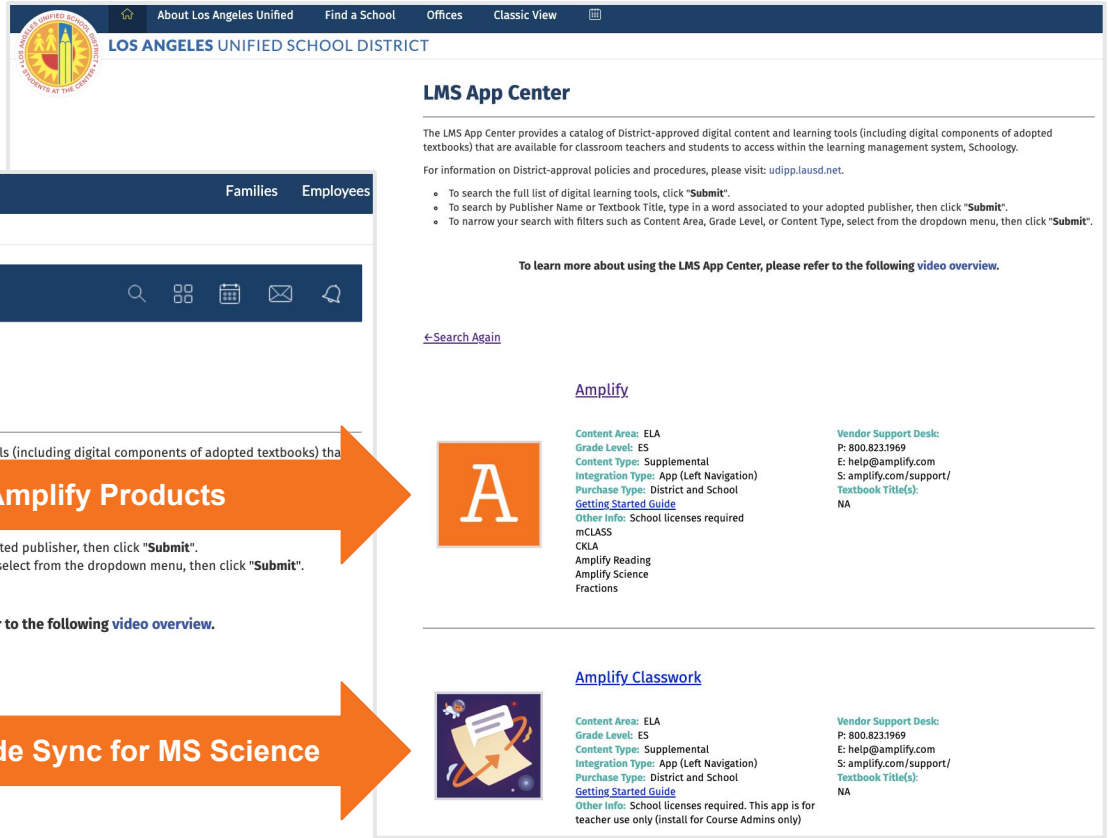
- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

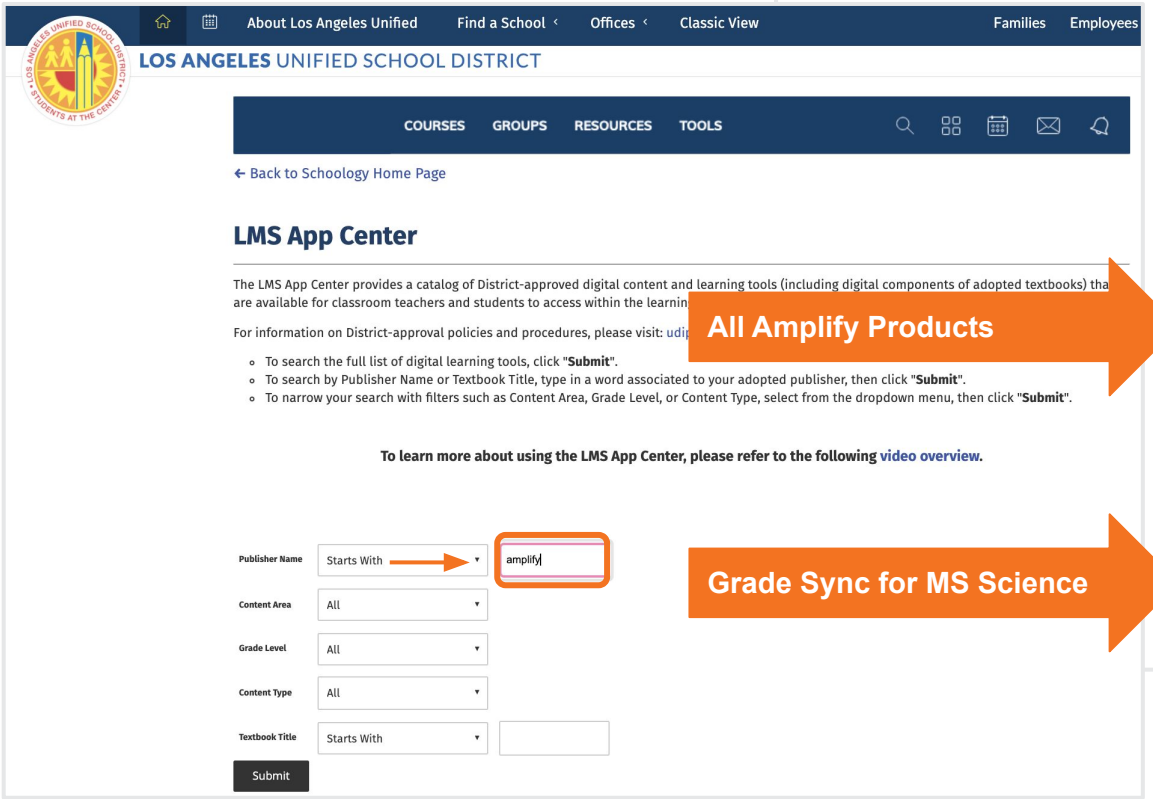
Last year's Amplify apps.





This year's app(s).





All Amplify Products

Grade Sync for MS Science

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Hi, Terin

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mCLASS Reporting

Reading 6-8

Reading K-5

Science

Vocabulary

Amplify. on Schoology

2021-2022

Schoology

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

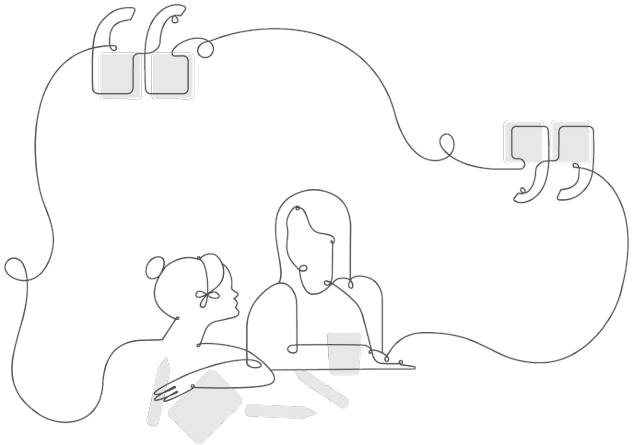
Upcoming LAUSD Office Hours

Last working Monday of the month

Next Office Hour:

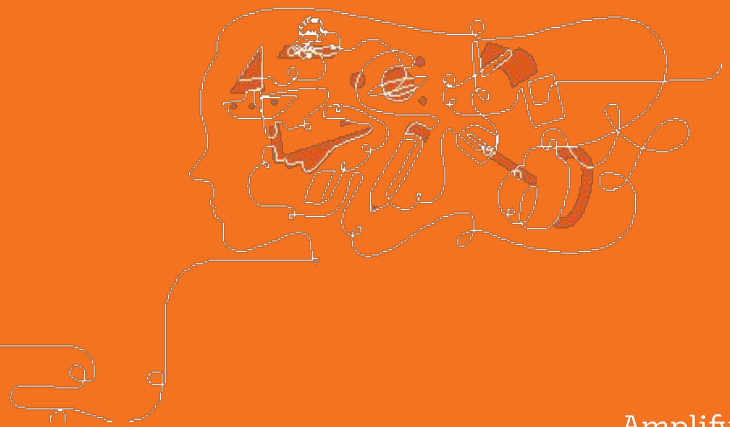
January 31, 2022

- Monday, (4-5pm)



https://meet.google.com/uwc-uuaz-qdc?authuser=0

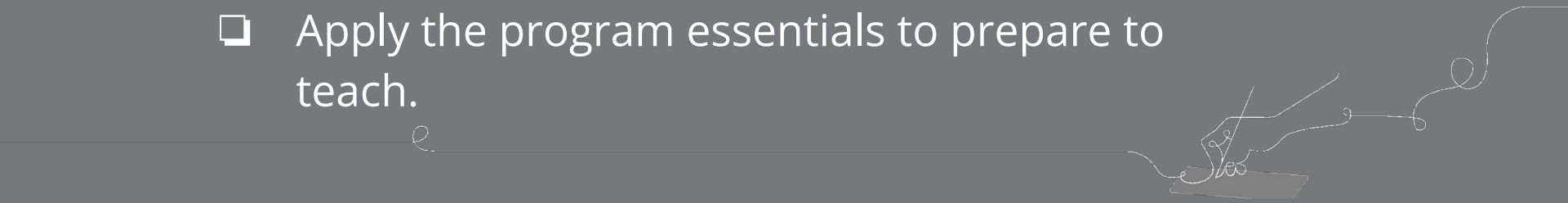
Part 2:
Guided Planning

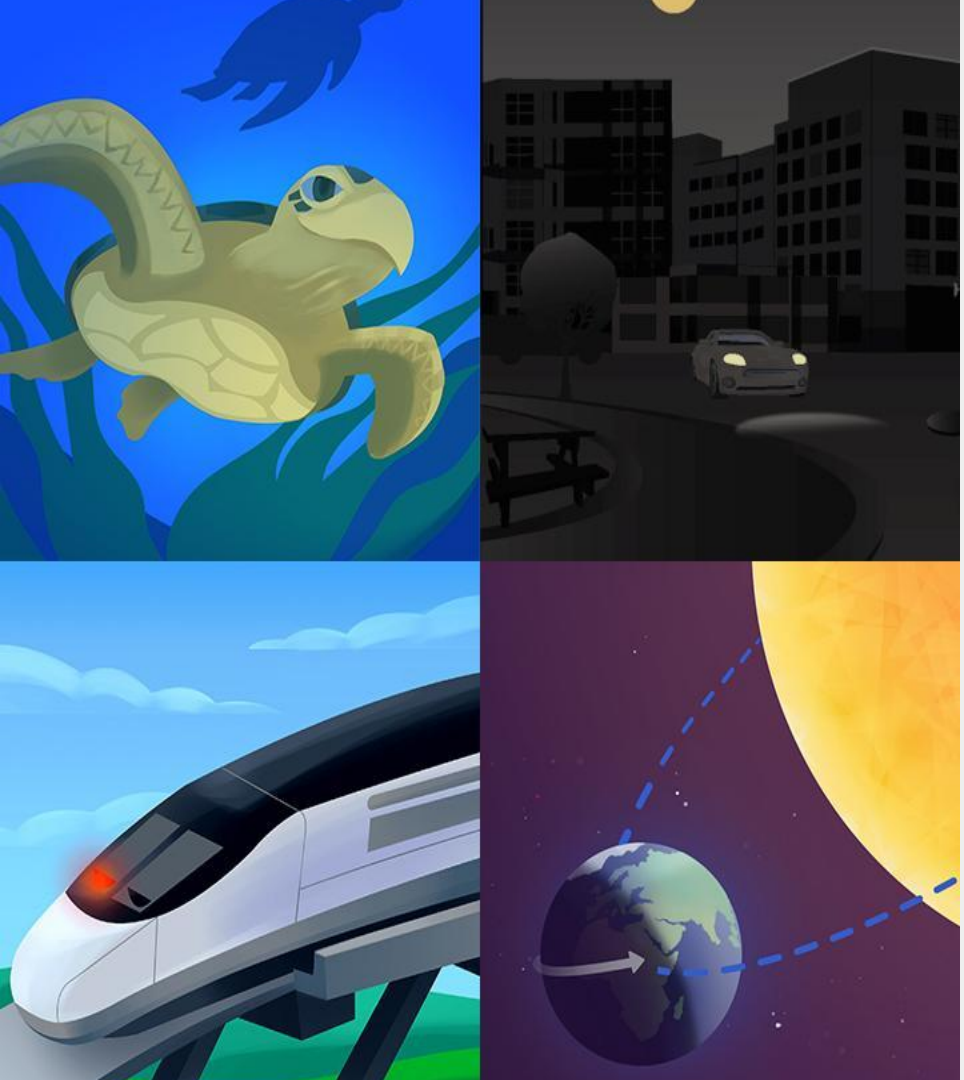


Overarching goals

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

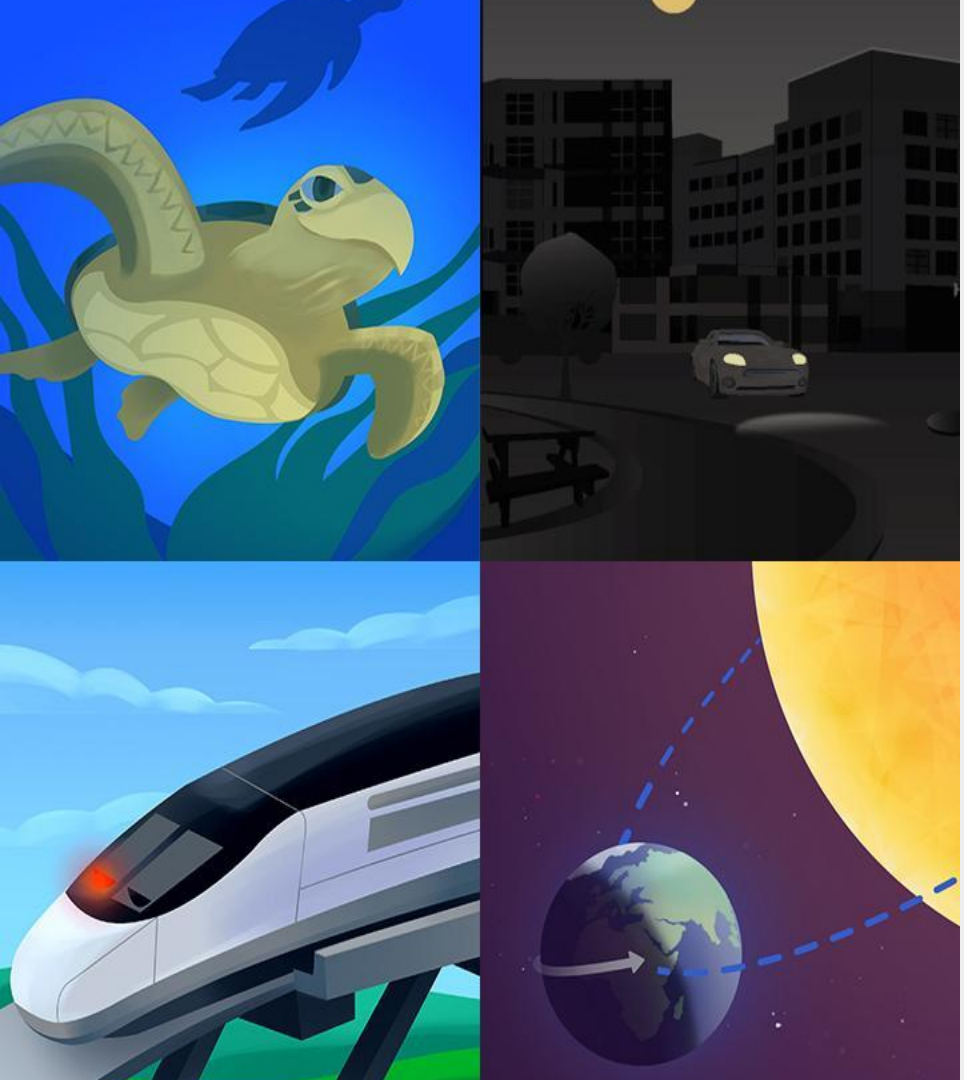
- ❏ Navigate the Amplify Science curriculum.
- ❏ Describe what teaching and learning look like in Amplify Science.
- ❏ Apply the program essentials to prepare to teach.





Plan for the day: Part 2

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



Plan for the day: Part 2

- Part 1 Review
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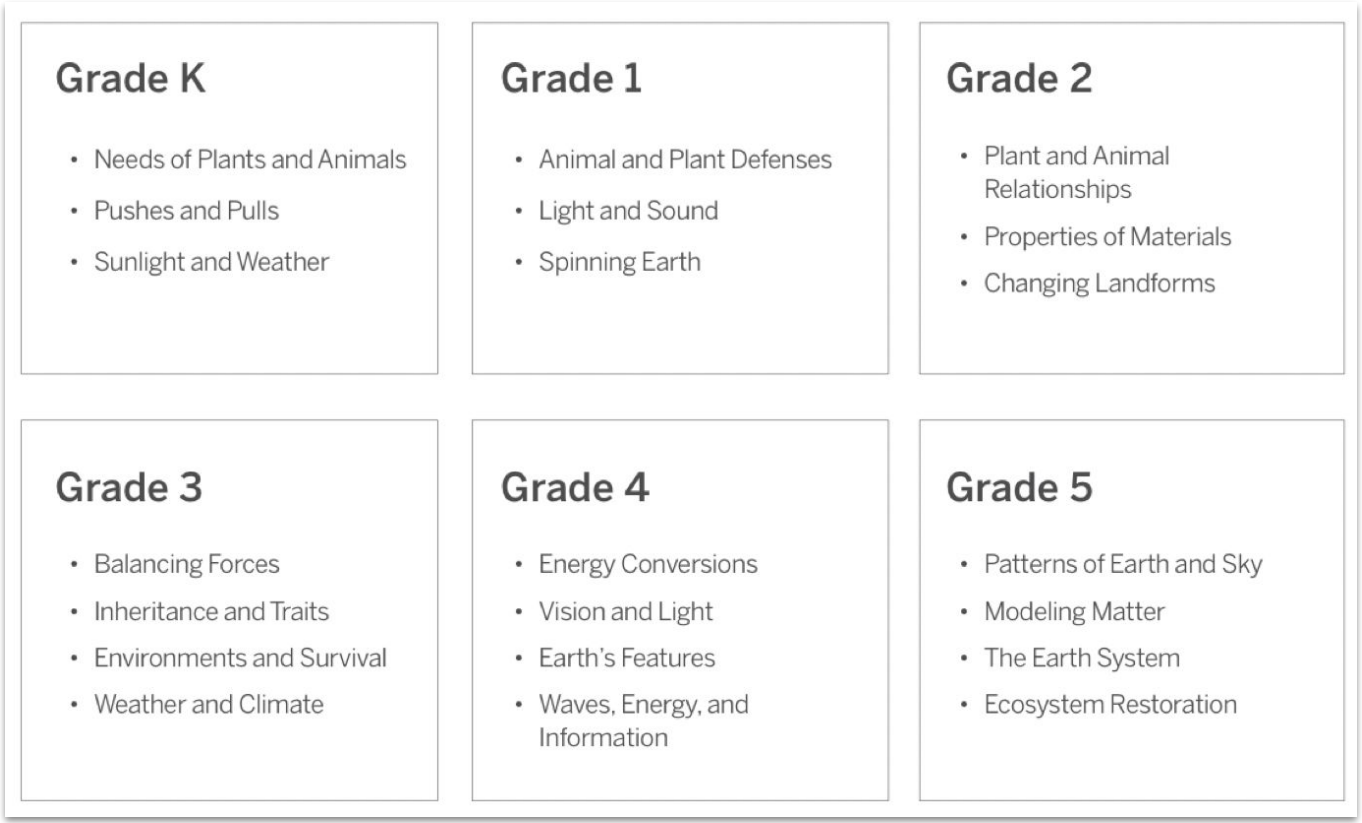
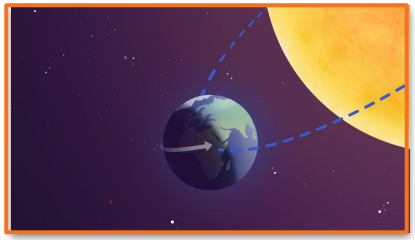
Course curriculum structure



Key takeaways:

- There are 22 lessons per unit
- Lessons at grades 2-5 are 60 minutes long

Year at a Glance: Grade 5

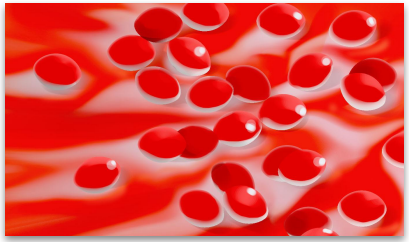


Patterns of Earth and Sky

Domain: Earth and Space Science

Unit type: Investigation

Student role: Astronomers

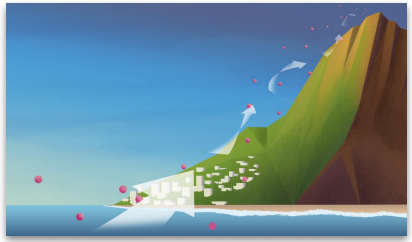


Modeling Matter

Domain: Physical Science

Unit type: Modeling

Student role: Food scientists



The Earth System

Domain: Earth and Space Science

Unit type: Engineering Design

Student role: Water resource engineers

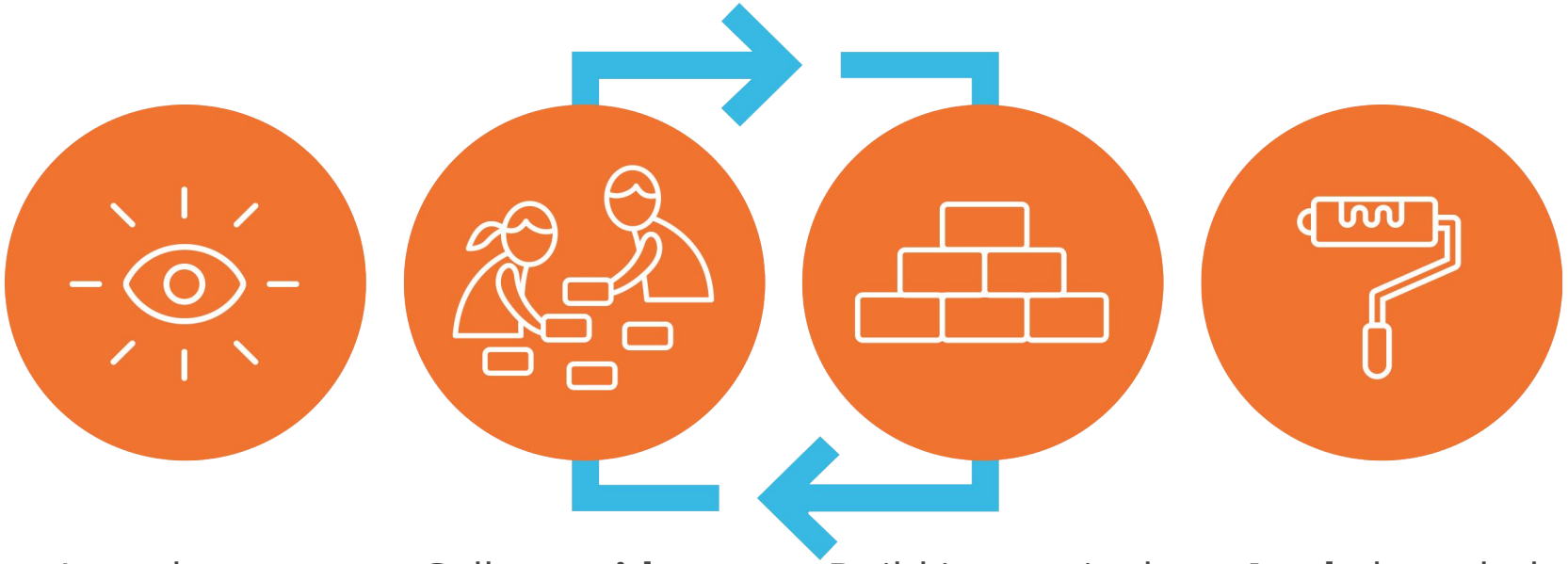
Ecosystem Restoration

Domain: Life Science

Unit type: Argumentation

Student role: Ecologists

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

Patterns of Earth and Sky

Why do we see different stars at different times?

This unit involves understanding the position of stars in relation to Earth and the sun, as well as figuring out how Earth's spin and orbit cause us to see different things across a day and across a year

Patterns of Earth and Sky

Problem: Archaeologists discovered part of an ancient artifact that depicts the sun and other stars. How can we figure out what would have appeared on the missing piece?

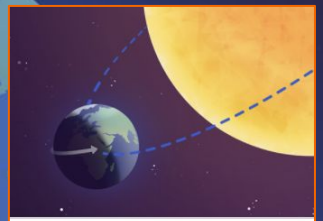
Role: Astronomers

Students observe and investigate patterns in the sky by day and by night with kinesthetic models, as well as using a digital simulation, and informational text. They learn that stars are all around us in space, develop an understanding of scale and distance in the universe, and discover how the spin and orbit of our planet causes us to observe daily and yearly patterns of stars.

Coherent Storylines

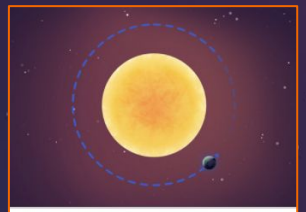
Chapter 1: Why don't we see a lot of stars in the daytime?

7 Lessons



Chapter 2: Why is the sun up sometimes, but not other times?

6 Lessons



Chapter 3: Why do we see different stars at different times of year?

6 Lessons

Chapter 4: How can we investigate why we see different stars on different nights?

3 Lessons

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Explaining the phenomenon: Science Concepts

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

Progress Build

Energy Conversions

Assumed prior knowledge (preconceptions): They are likely to know the sun is up during the daytime and stars are up during the nighttime. Students may understand that Earth is round and that Earth moves.

Level 1

The sun looks bigger and brighter than all other stars because it is much closer to Earth than all other stars.

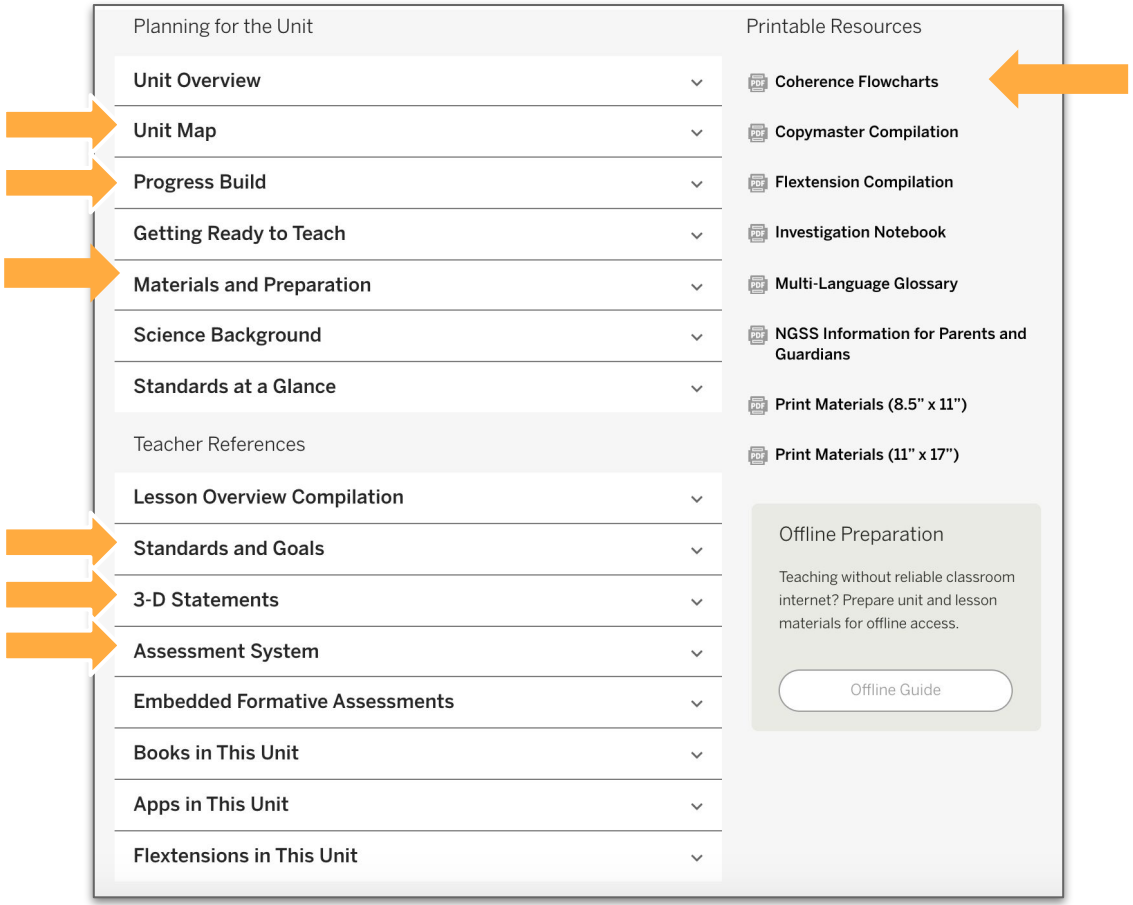
Level 2

As Earth spins, what we see in the sky changes throughout the day.

Level 3

As Earth orbits the sun, the stars we see in the night sky change throughout the year.

Key Unit Guide Documents for Planning



Core Unit Planning & Internalization

Unit Title:	Patterns of Earth and Sky

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:
Archaeologists discovered part of an ancient artifact that depicts the sun and other stars. How can we figure out what would have appeared on the missing piece?	Astronomers
Unit Question:	**Relationship between the Unit Phenomenon and Unit Question:**
Why do we see different stars at different times?	Students apply their understanding of why we see different stars at different times to explain what is shown on the artifact, and what might be on the missing piece.

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

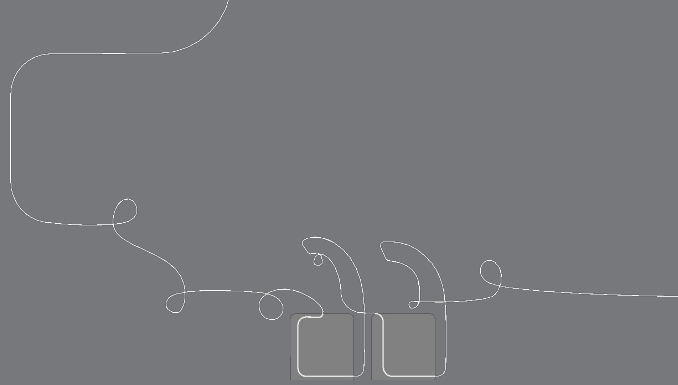
Our view of the stars in the nighttime sky changes in a pattern that repeats each year because Earth is traveling along its orbital path. This is why the artifact shows different constellations in the different nighttime panels

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

T

Students investigate why we see different stars at different times, using digital and kinesthetic models to figure out what causes daily and yearly patterns of Earth and sky.

Questions?



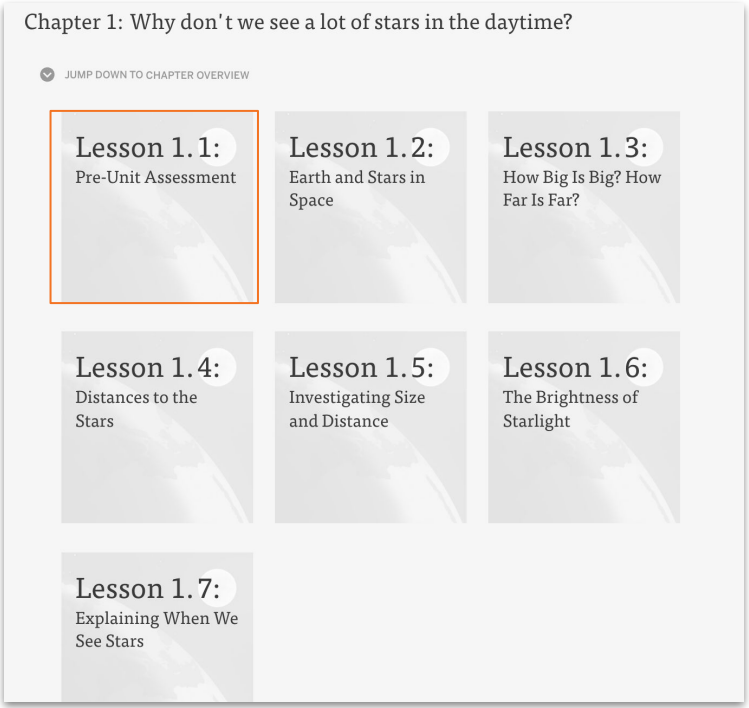
Gr. 1 LAUSD New Teacher Part 2:
Unit 1, Animal and Plant Defenses

Plan for the day: Part 2

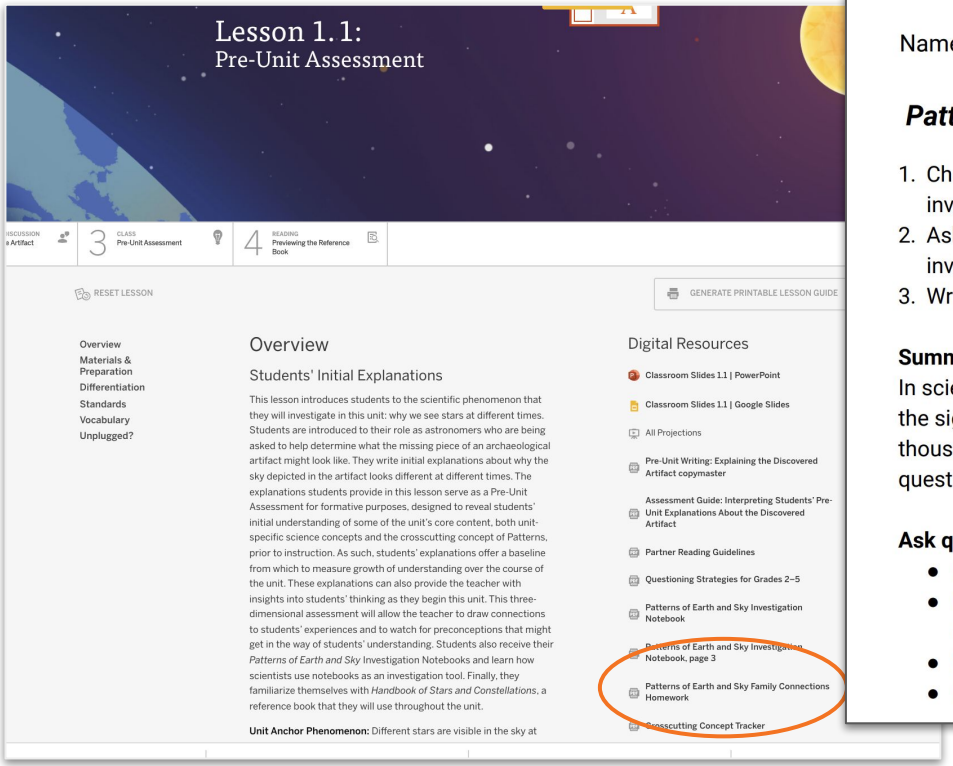
- Part 1 Review
- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

Beginning the Unit

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



Patterns of Earth and Sky - Family Connection



Name: _____ Date: _____

Patterns of Earth and Sky Family Connections Homework

1. Choose a member of your family and tell them about what we are investigating in science class.
2. Ask them about their experiences, ideas, and questions related to our investigations.
3. Write notes about what you learn.

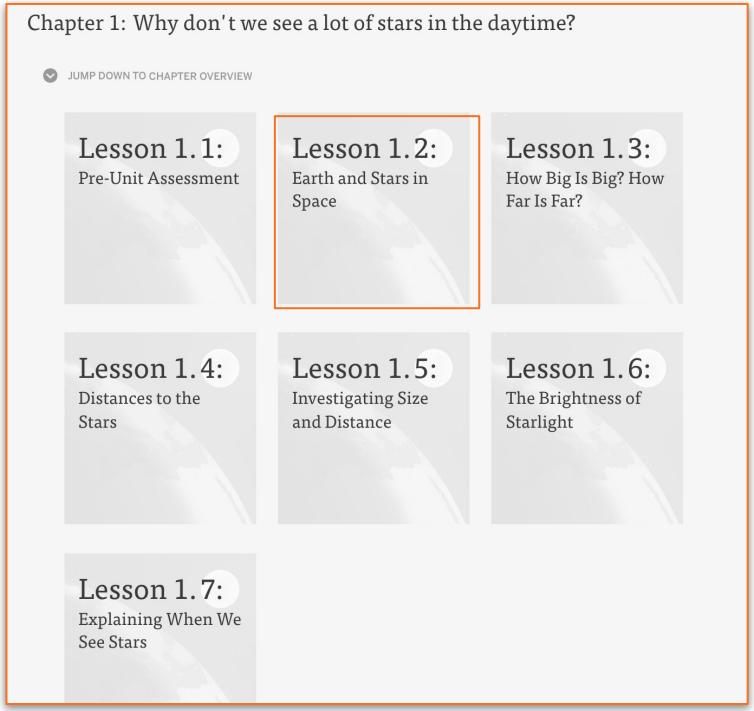
Summary of our investigation you can share:
In science class, we are working as astronomers to figure out and explain the significance of the illustrations on a recently discovered thousand-year-old artifact with a missing piece. We will be answering the question, *Why do we see different stars at different times?*

Ask questions such as:

- What does our investigation make you think of?
- Do you have any memories, stories, expertise, or experiences about something like what we're investigating?
- What have you heard or learned about these topics?
- What do you wonder about what we are investigating?

Beginning the Unit

Model lesson 1.2



Grade 5 | Patterns of Earth and Sky

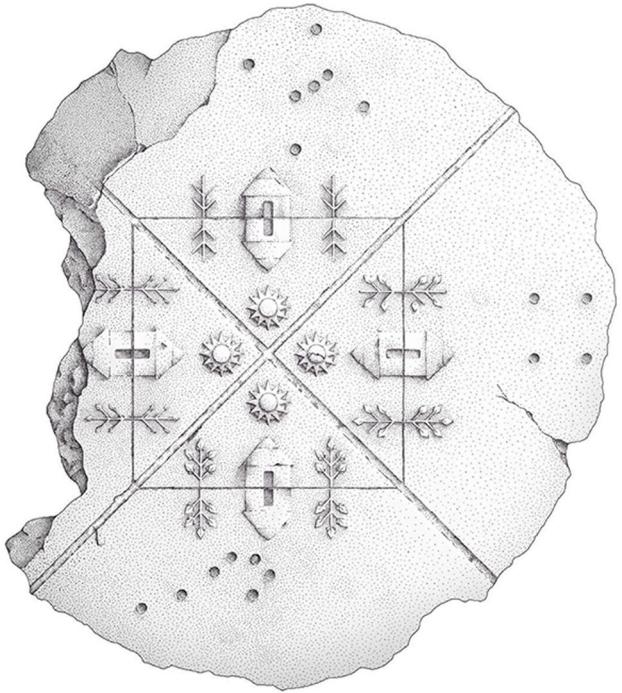
Lesson 1.2: Earth and Stars in Space

AmplifyScience

20 MIN

Activity 1

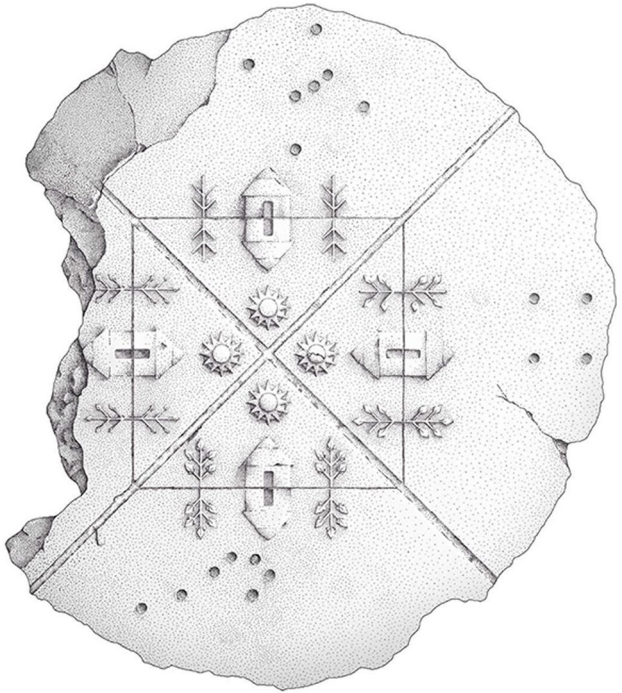
Modeling the Shape of Earth



As **astronomers**, we are trying to figure out what the missing piece of this artifact might look like. To figure this out, we need to be aware of **when things appear in the sky.**

If we went outside **right now,** what do you think we would see in the sky?

What if we waited **until dark,** what do you think we would see in the sky then?



Do you see anything on the artifact that might also be **something you can see in the sky**?

Chapter 1 Question

Why don’t we see a lot of stars during the daytime?

Patterns of Earth and Sky Classroom Wall

Unit Question
Why do we see different stars at different times?

Chapter 1 Question
Why don't we see a lot of stars during the daytime?

Key Concepts

Vocabulary

astronomer

star

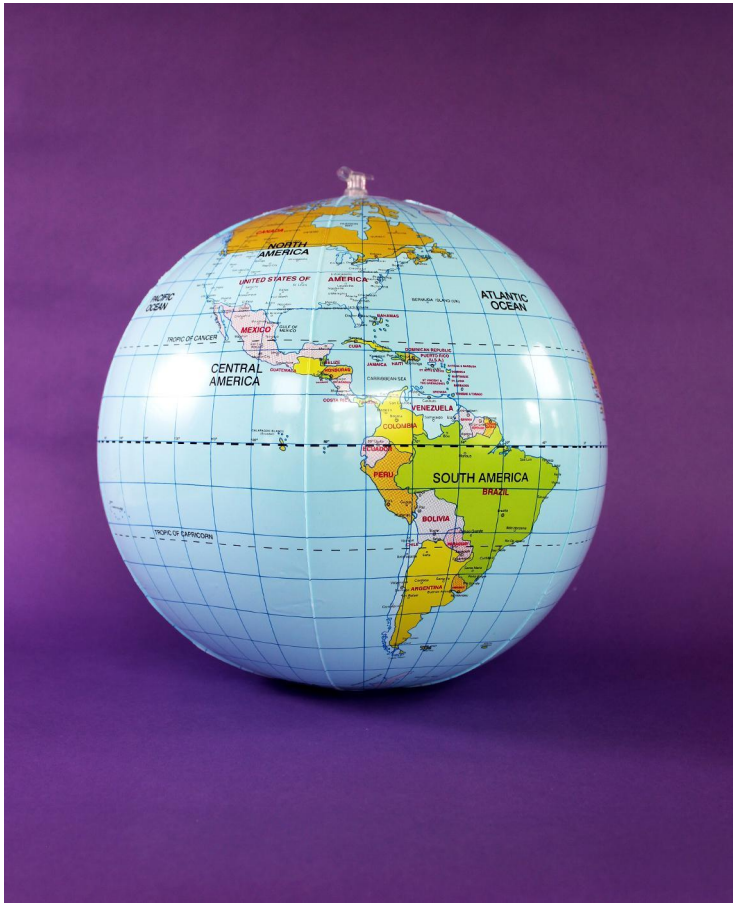
If we want to understand what we see in the sky, we should first decide how we will show **Earth's shape**.

For this, we can use **models**.

In what way are these models **similar** to Earth's shape?

In what ways are these models **different** from Earth's shape?

Which model of Earth do these images support? Globe or map?



The photographs of Earth from space are **evidence**, or information that supports our idea, that **Earth is a sphere** like the globe, rather than flat like the map.

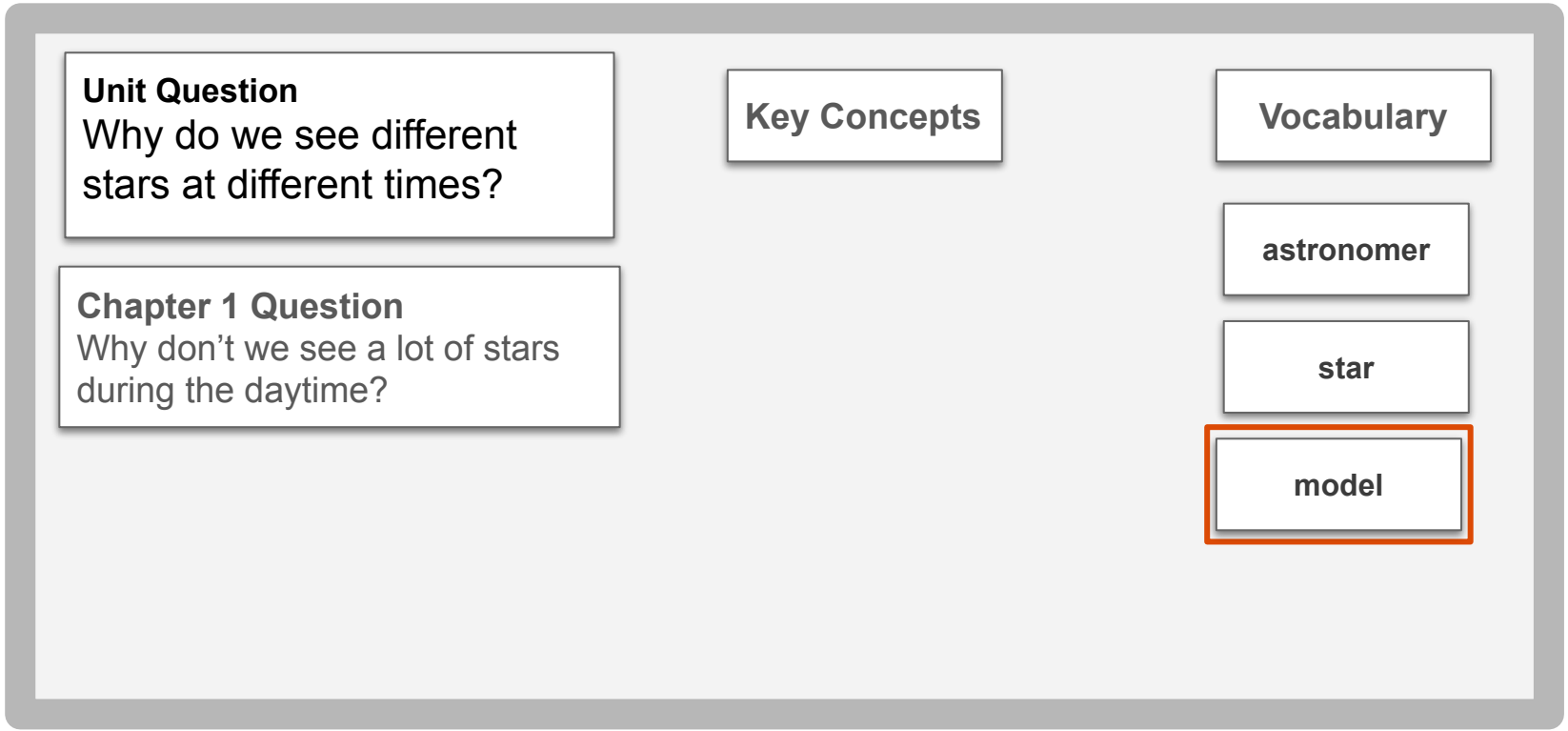
When might a **map** be a more useful representation of Earth?

Vocabulary

model

something scientists make to answer questions about the real world

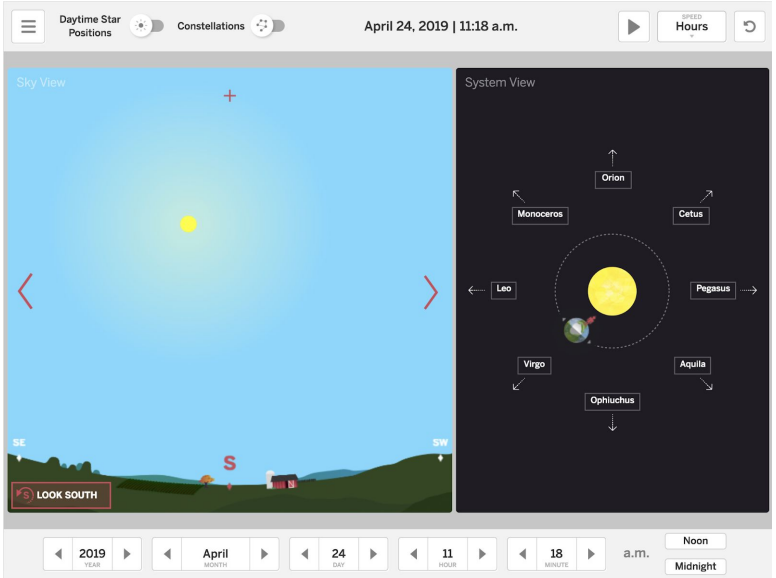
Patterns of Earth and Sky Classroom Wall



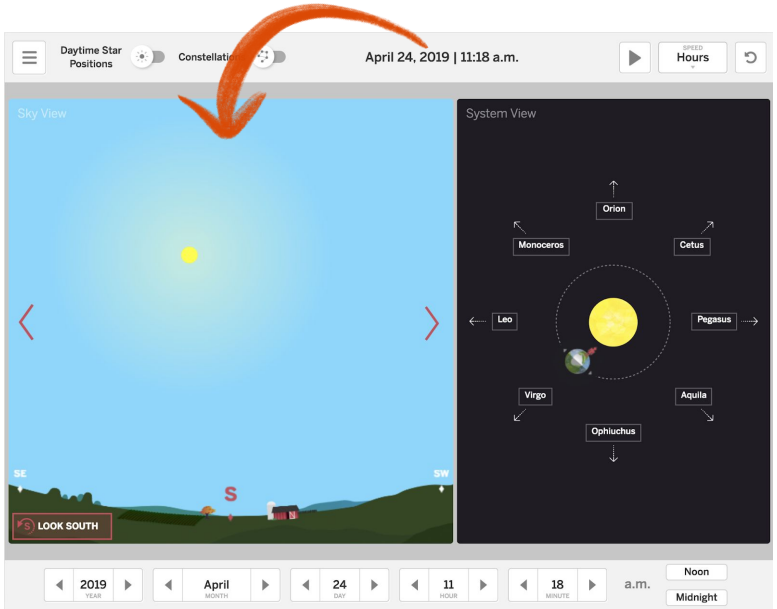
20 MIN

Activity 2

Exploring a Simulation of Earth and Sky

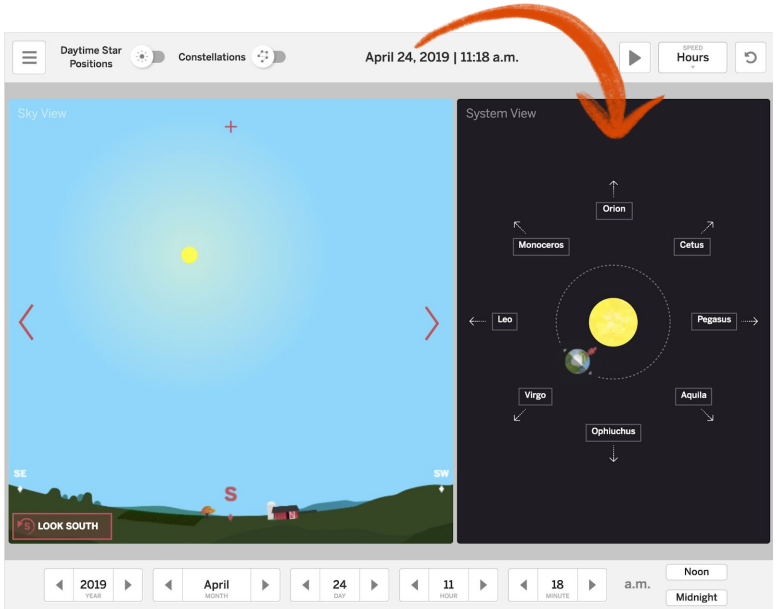


This Sim is a **scientific model of Earth and the sky.** Although this model is different from the real Earth and sky, it is also accurate in many ways.



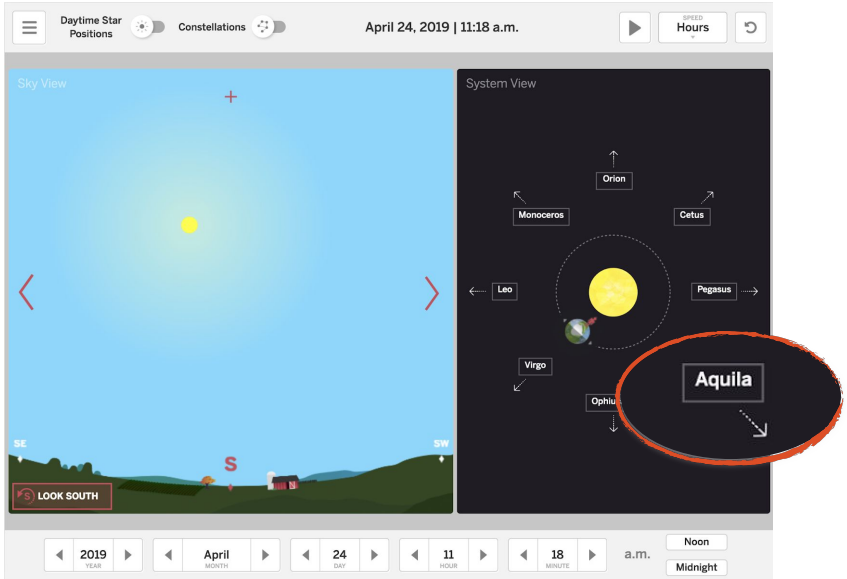
Sky View:

This view shows the sky as if you are **standing on Earth.**



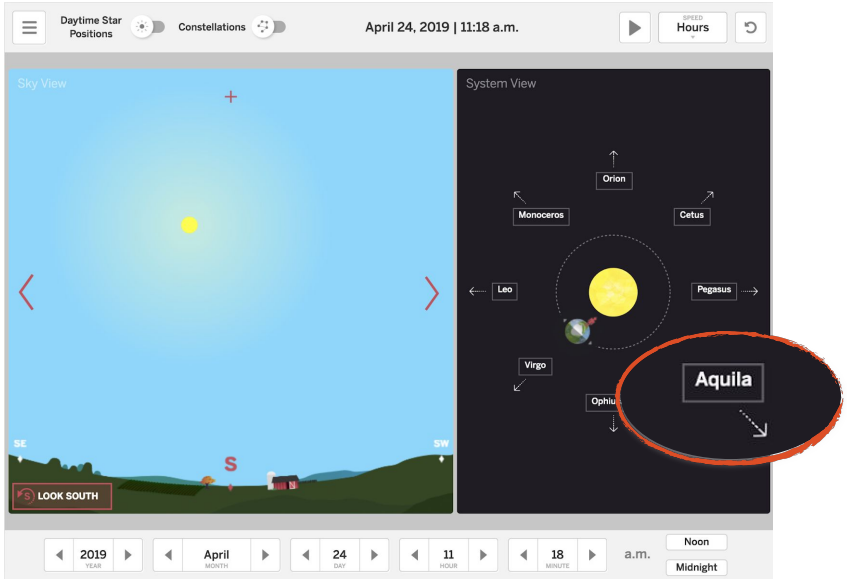
System View:

This view shows Earth as if you are seeing it from **above Earth's North Pole,** but far enough away to also see the sun.



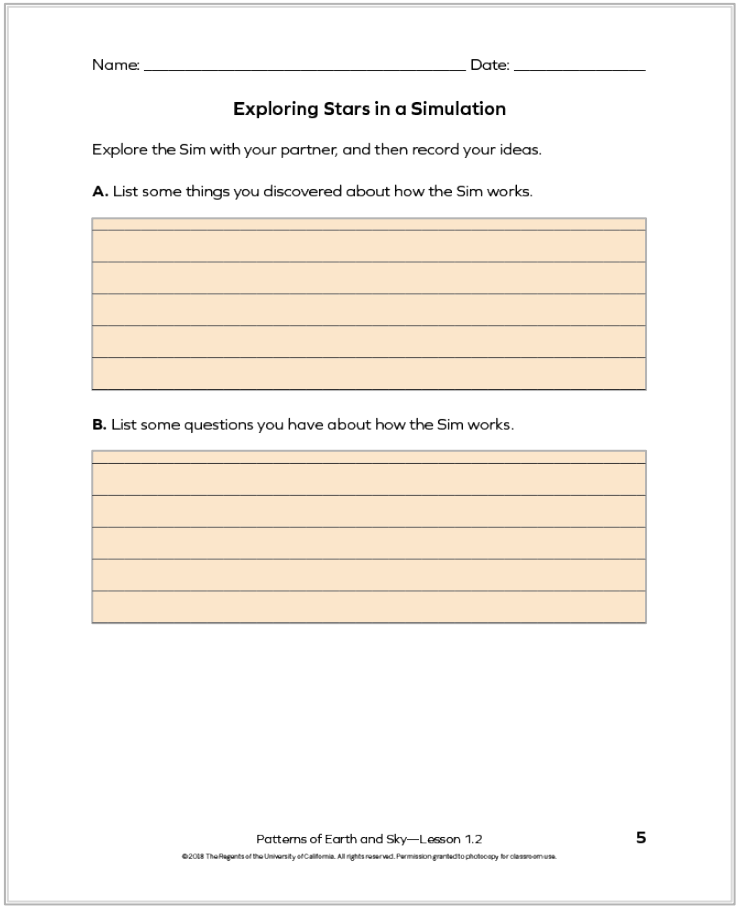
Constellations:

The name labels (**in boxes**) do not represent the actual constellations because they are too far away.



Arrows:

The white arrows represent the **direction in which you would need to travel** in space in order to get to those constellations.



Name: _____ Date: _____

Exploring Stars in a Simulation

Explore the Sim with your partner, and then record your ideas.

A. List some things you discovered about how the Sim works.

B. List some questions you have about how the Sim works.

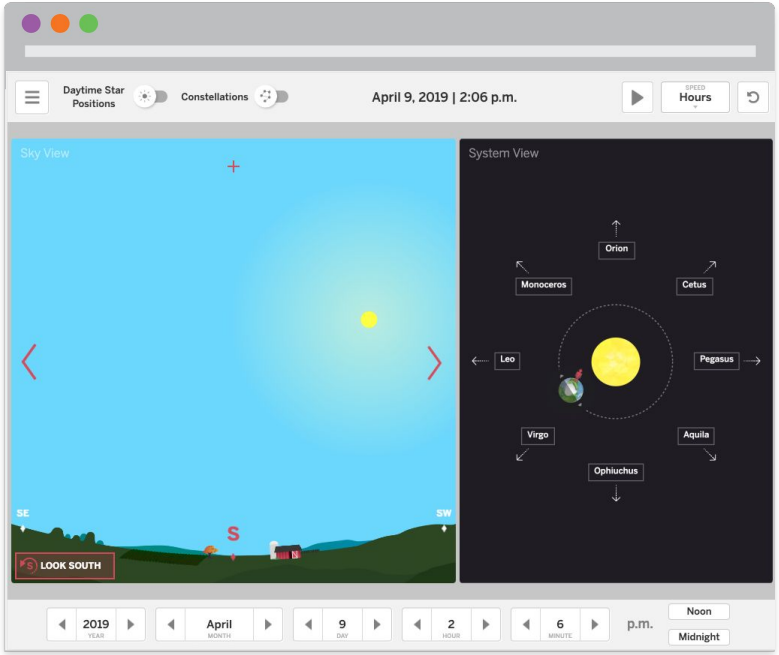
Patterns of Earth and Sky—Lesson 1.2 5

Turn to page 5, Exploring Stars in a Simulation, in your notebooks.

Explore the Sim with your partner, and then **record** some things you discover and some questions.

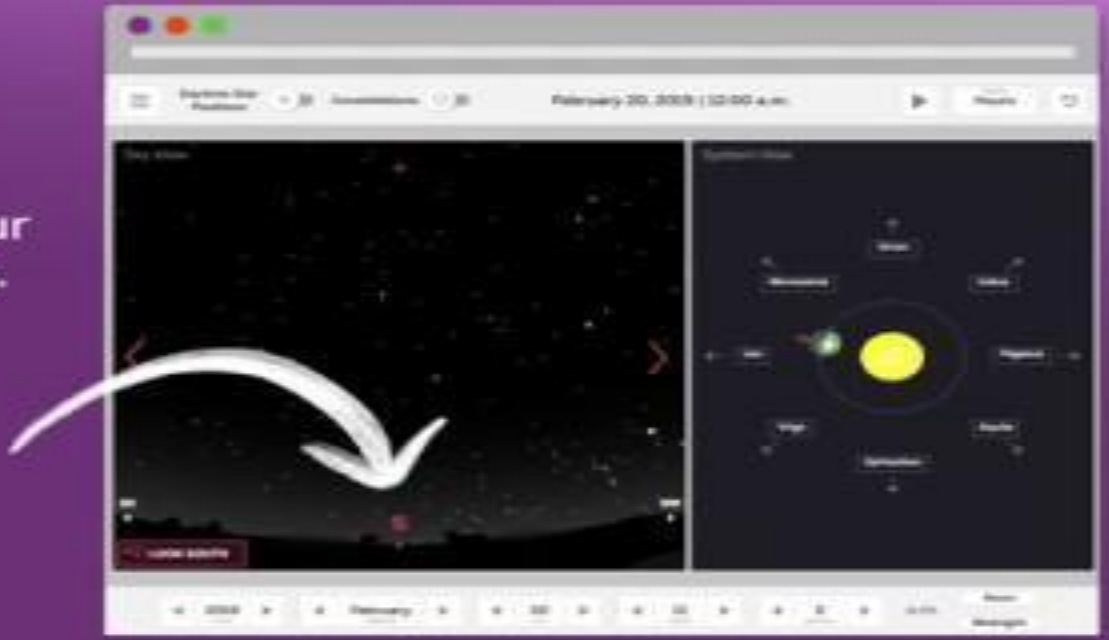
Activity 3

Sharing What We Discovered



What did you **notice** about the Sim?

When we press **LOOK SOUTH** we turn our view to the south horizon.



10 MIN

Activity 4

Ideas About Where the Stars Are

We’re going to investigate this question:

Where are the stars in space?

Patterns of Earth and Sky Classroom Wall

Unit Question
Why do we see different stars at different times?

Chapter 1 Question
Why don't we see a lot of stars during the daytime?

Investigation Question
Where are the stars in space?

Key Concepts

Vocabulary

astronomer

star

model

Name: _____ Date: _____

Think-Write-Pair-Share: Where Are the Stars in Space?

1. Think about the question, *Where are the stars in space?*
2. Record your ideas.
3. Share your ideas with your partner.

Turn to page 6 in your notebooks.

Where are the stars in space?

End of Lesson

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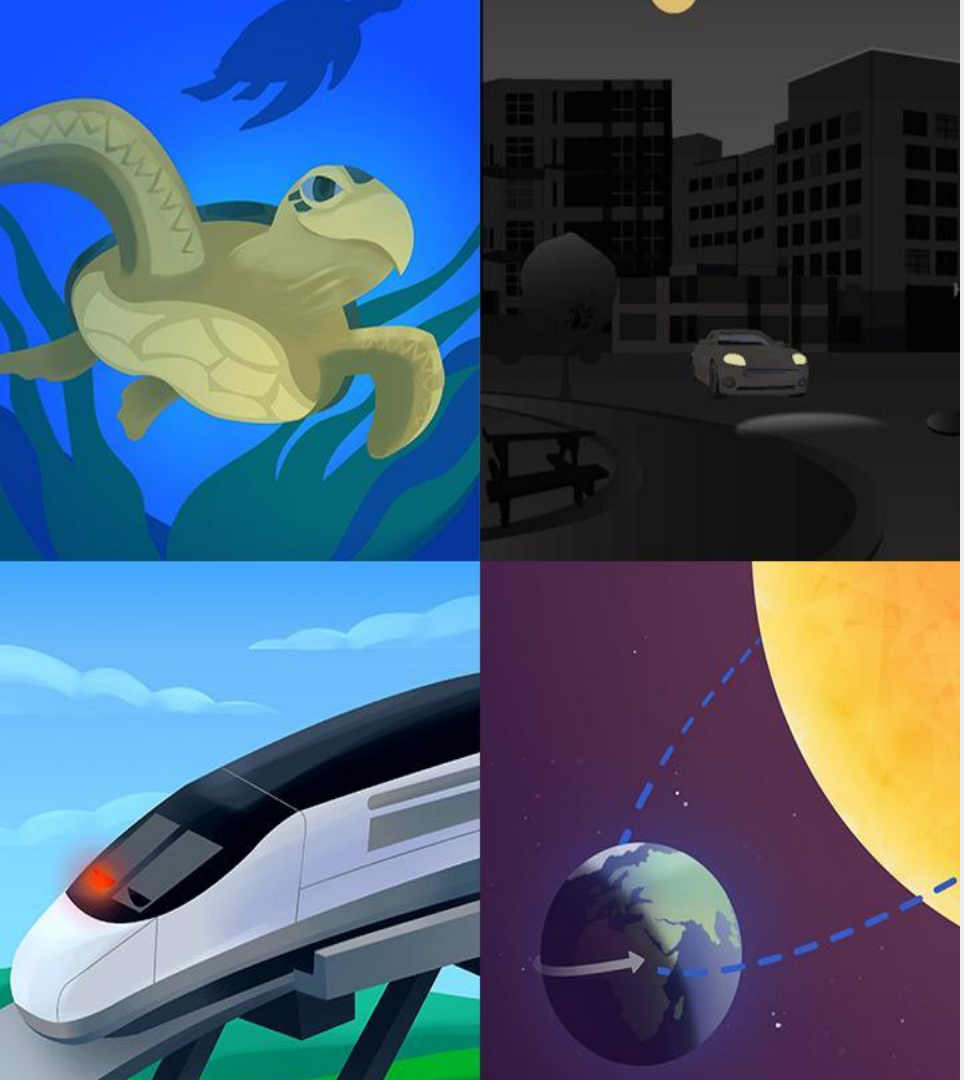


Plan for the day

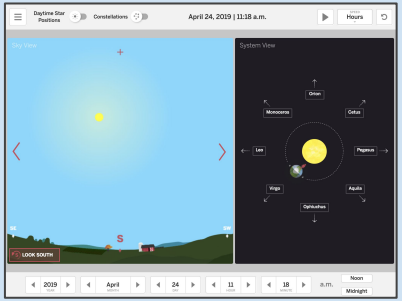
- Introduction and framing
- Navigation and planning
- Teaching and learning in an Amplify Science lesson
- **Instructional approach reflection**
- Additional program resources
- Closing

Gathering evidence

Patterns of Earth and Sky Lesson 1.2

Chapter Question: Why don't we see a lot of stars in the daytime?

Investigation Question: Where are the stars in space?



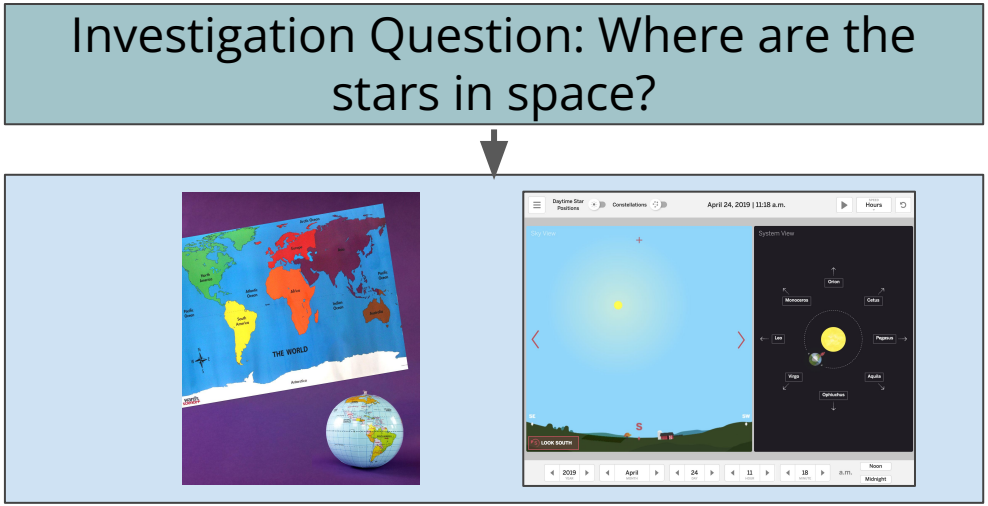
Introducing the Investigation Question

Where are the stars in space?

Before introducing the Investigation Question, students figure out

- ✓ the Earth is sphere
- ✓ to use models
- ✓ how to explore the Sim

Investigation Question: Where are the stars in space?

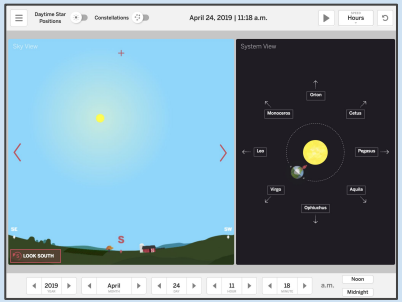


Evidence sources work together

Comparing models of the Earth

How do these activities **work together** to support understanding of where are the stars in space?

Investigation Question: Where are the stars in space?

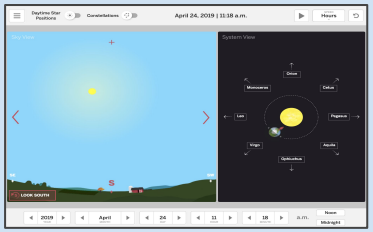


Gathering evidence

Patterns of Earth and Sky Lesson 1.2

Chapter Question: Why don't we see a lot of stars in the daytime?

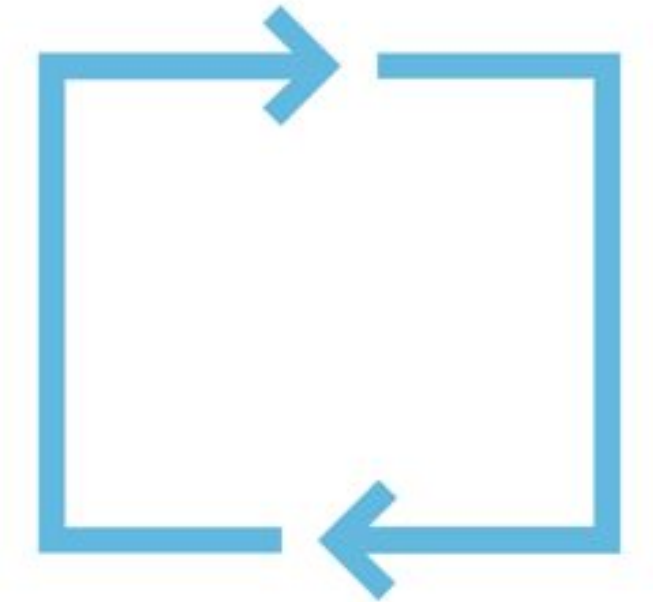
Investigation Question: Where are the stars in space?



What have students figured out so far?

Multimodal learning

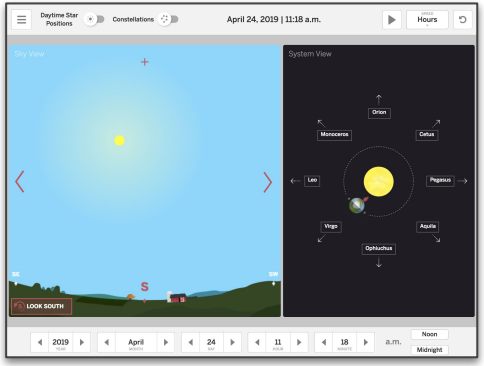
Gathering evidence over multiple lessons



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

↓

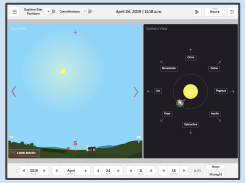
Key concepts

Chapter Question: Why don't we see a lot of stars in the daytime?

↓

Investigation Question: Where are the stars in space?

↓



Coherence Flowchart

Patterns of Earth and Sky Lesson 1.2-1.4

Chapter Question: Why don't we see a lot of stars in the daytime?

↓

Investigation Question: Where are the stars in space?

↓

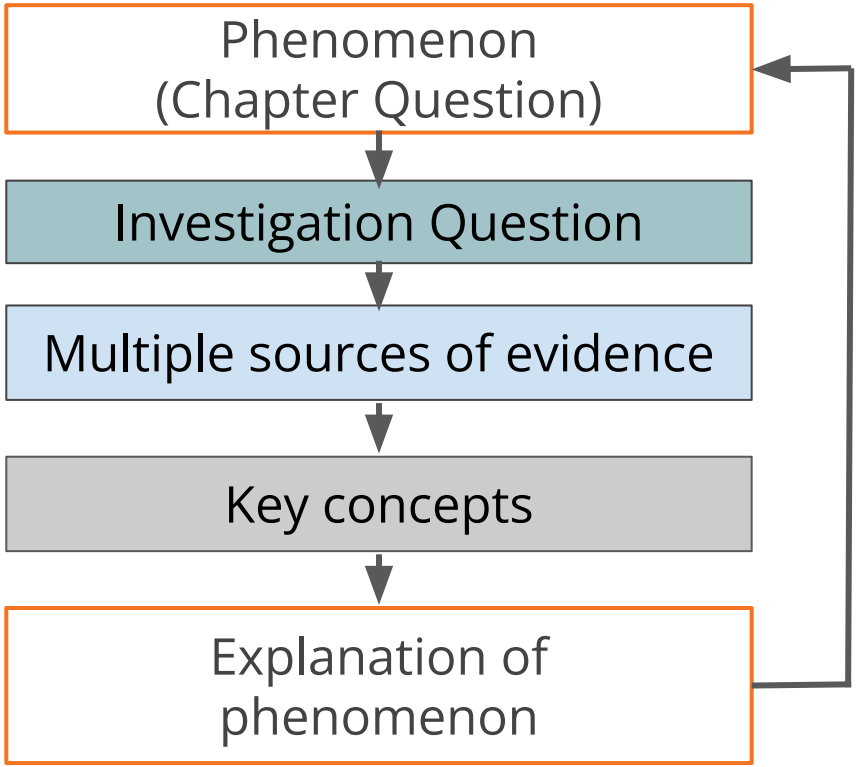
Evidence: Compare models of Earth (1.2)
Evidence: Read *How Big is Big? How Far is Far?* (1.3)
Evidence: Investigate distances to stars in the Sim (1.4)
Evidence: Create a physical model of Great Square of Pegasus (1.4)
Evidence: Compare representations of stars (1.4)

↓

Key concepts: Stars are very far away from Earth in every direction. The sun is the only star in our solar system. Other stars are far outside our solar system.

Coherence Flowchart

A diagram of student learning



Coherence Flowchart

Patterns of Earth and Sky Lesson 1.2-1.4

Chapter Question: Why don't we see a lot of stars in the daytime?

↓

Investigation Question: Where are the stars in space?

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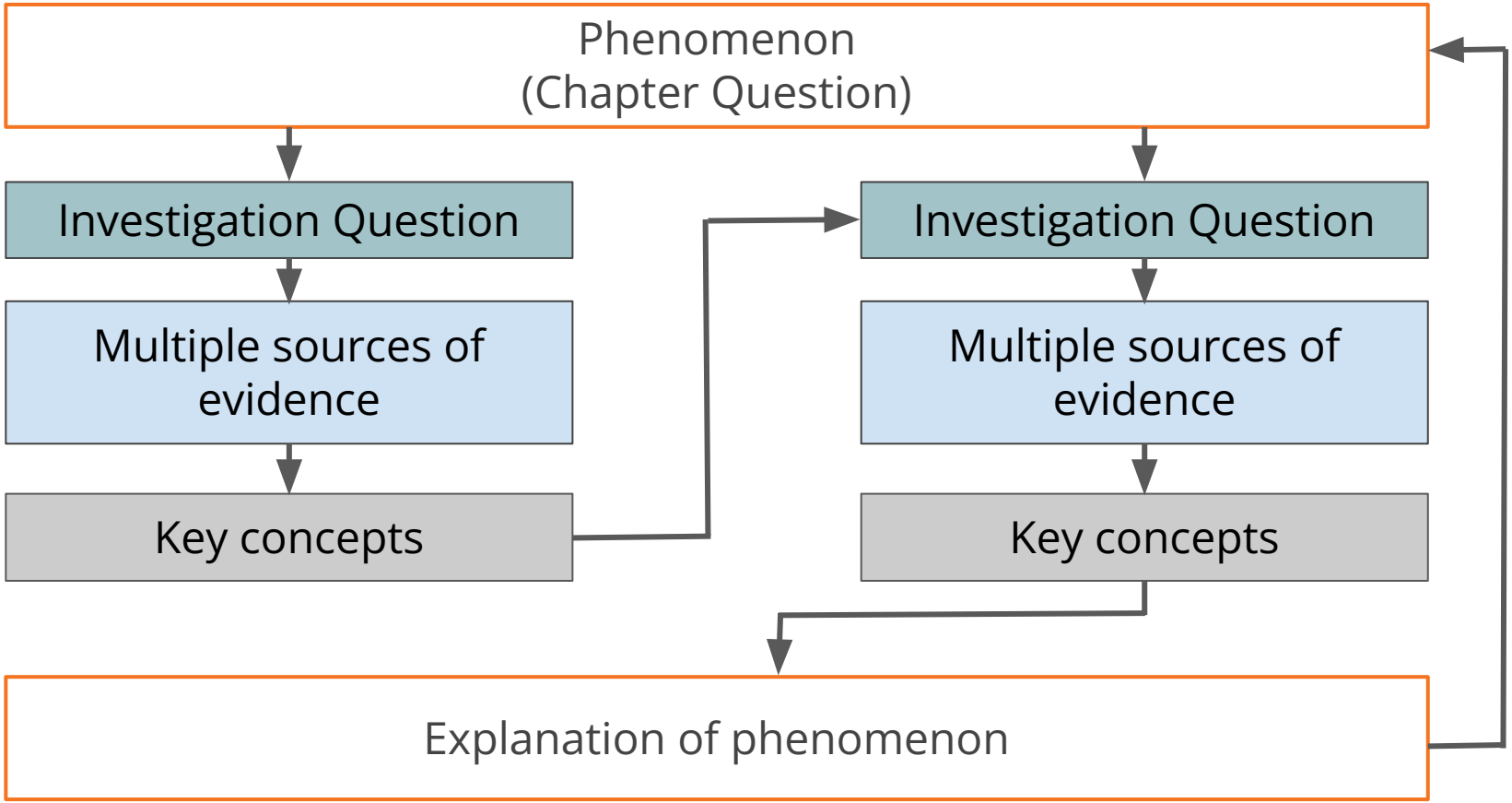
Key concepts: Stars are very far away from Earth in every direction. The sun is the only star in our solar system. Other stars are far outside our solar system.

Coherence Flowchart



Patterns of Earth and Sky: Analyzing Stars on Ancient Artifacts

Unit Anchor Phenomenon
Problem students work to solve

Different stars are visible in the sky at different times
Archaeologists discovered part of an ancient artifact that depicts the sun and other stars. How can we figure out what would have appeared on the missing piece?

Chapter-level Anchor Phenomenon
Chapter 1 Question

In the daytime the sun is visible in the sky but other stars are not.
Why don't we see a lot of stars in the daytime?

Investigative Phenomena
Investigation Questions

Sometimes stars are visible in the sky, sometimes only the sun is visible.
Where are the stars in space? (1.2–1.4)

Sometimes stars are visible in the sky, sometimes only the sun is visible.
If the stars are all around us, why can't we always see them? (1.5–1.6)

Evidence sources and reflection opportunities

- Compare models of Earth (1.2)
- Read *How Big Is Big? How Far Is Far?* (1.3)
- Investigate distances to stars in the Sim (1.4)
- Create a physical model of Great Square of Pegasus (1.4)
- Compare representations of stars (1.4)

- Observe stars in the Sim (1.5)
- Investigate size and distance of stars with a physical model (1.5)
- Read about star visibility in *Handbook of Stars and Constellations* (1.6)
- Watch *Lost in Light* video (1.6)
- Discuss why we can't always see stars using unit vocabulary (1.6)

Key concepts

- Stars are very far away from Earth in every direction. (1.4)
- The sun is the only star in our solar system. Other stars are far outside our solar system. (1.4)

- The sun looks bigger and brighter because it is much closer to Earth than other stars. (1.6)
- The sun is the only star we can see in the daytime because the sun looks so bright. (1.6)

Application of key concepts to the problem

- Discuss the Chapter 1 Question in pairs (1.7)
- Write a scientific explanation to answer the Chapter 1 Question (1.7)
- Discuss ideas about the artifact (1.7)

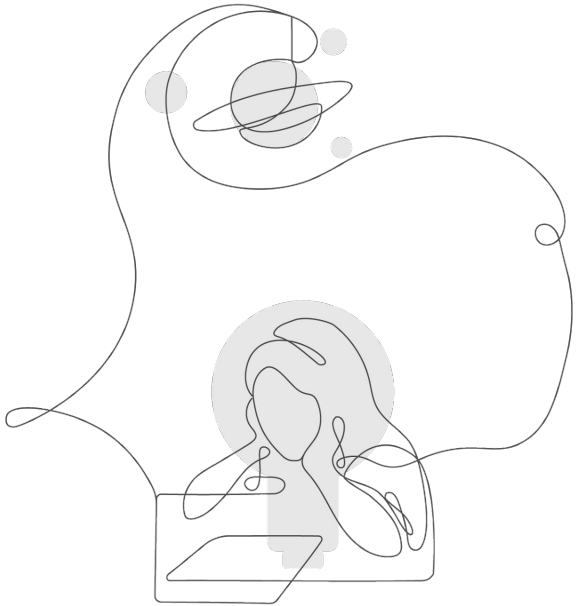
Explanation that students can make to answer the Chapter 1 Question

The stars are all around Earth in every direction. Because the sun is much closer to Earth than all other stars it appears bigger and brighter. The sun's brightness overwhelms the brightness of all other stars during the daytime, and that is why we can see only the sun during the daytime. This is why the artifact doesn't show the sun and the other stars being visible at the same time.

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.

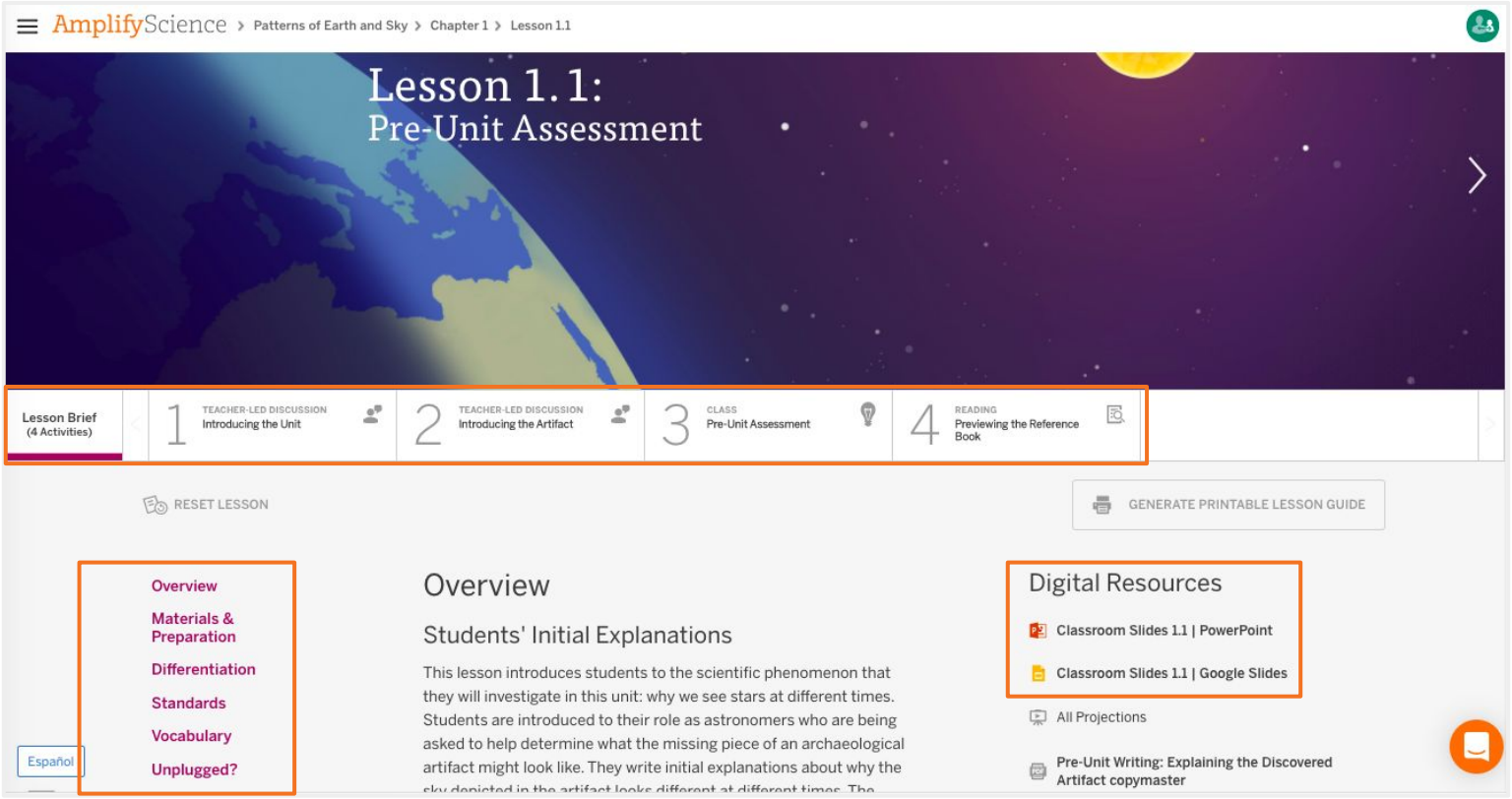


Gr. 1 LAUSD New Teacher Part 2:
Unit 1, Animal and Plant Defenses

Plan for the day: Part 2

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

The Lesson Brief



4 Easy Steps to Teaching a lesson

DIRECTIONS:

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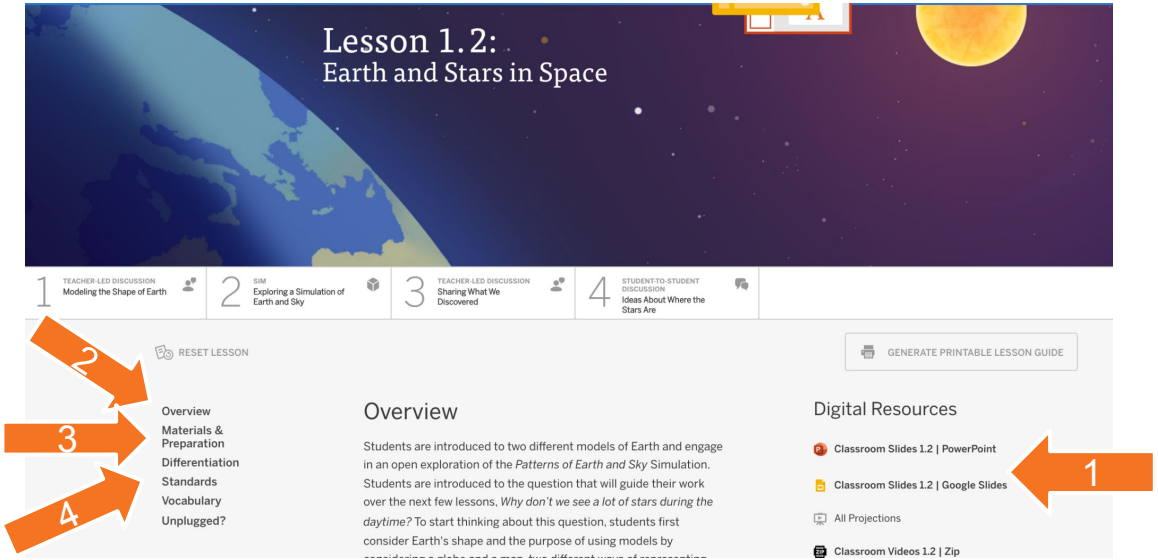

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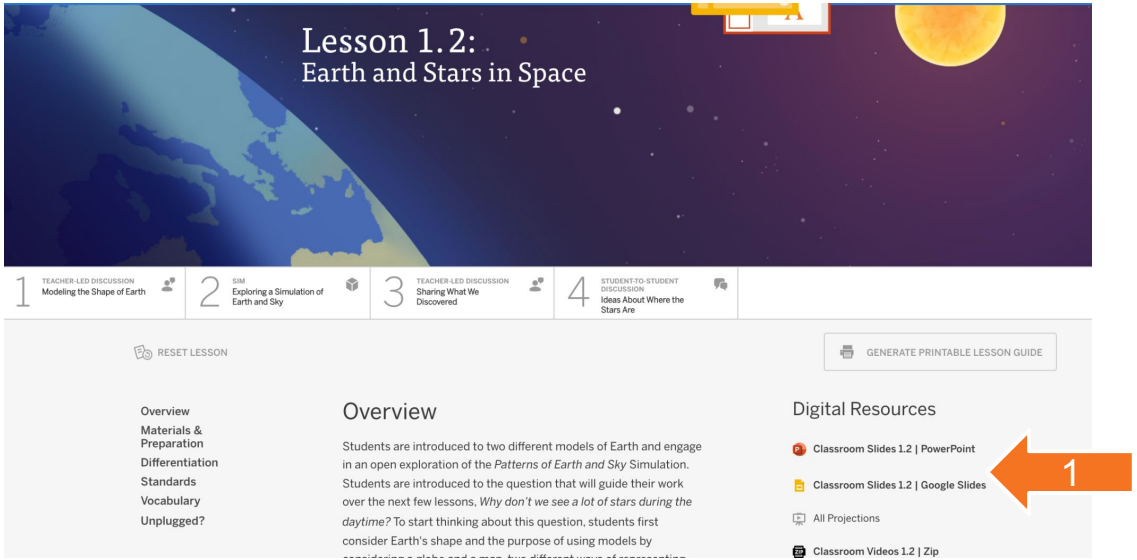
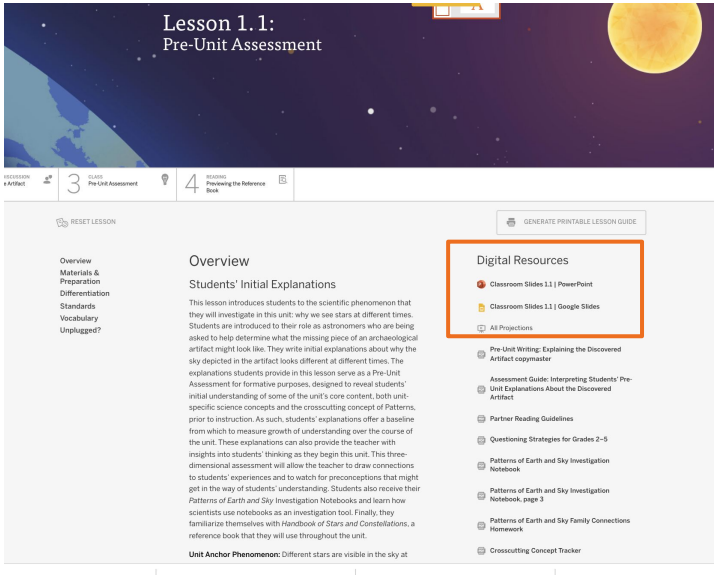


Preparing to teach

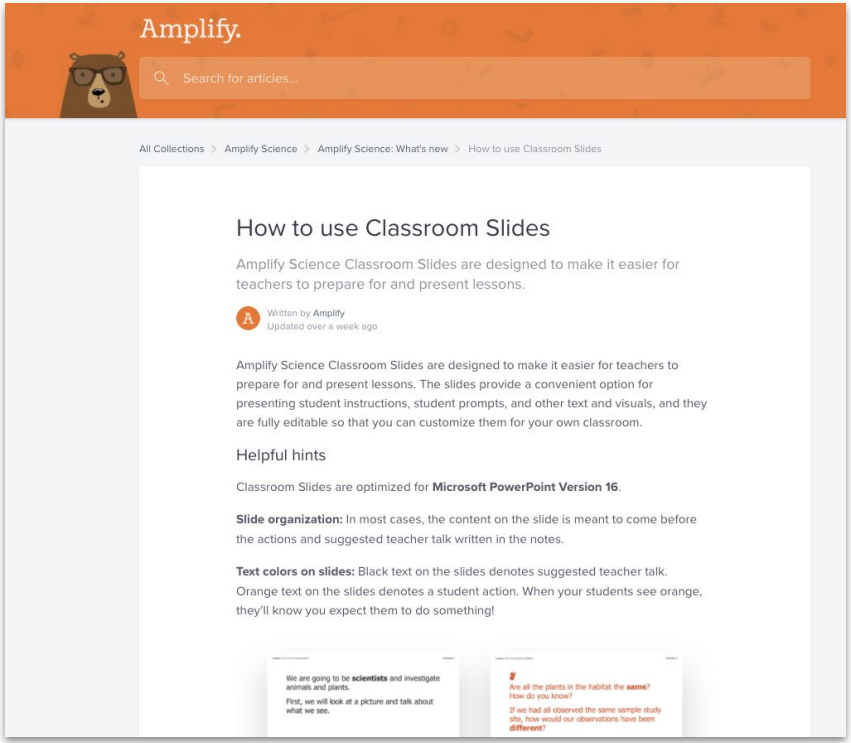
Classroom Slides

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?



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.



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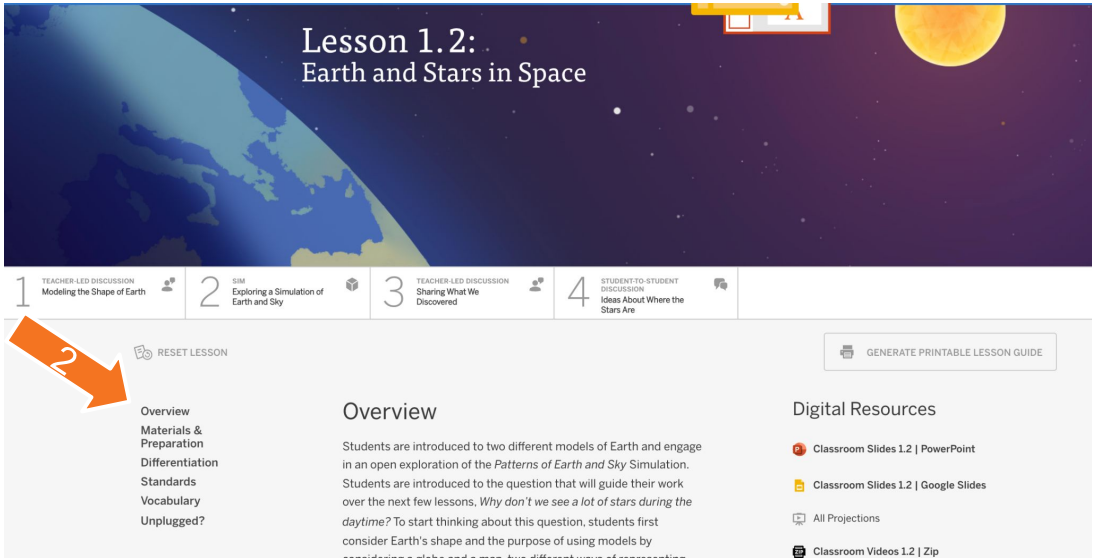
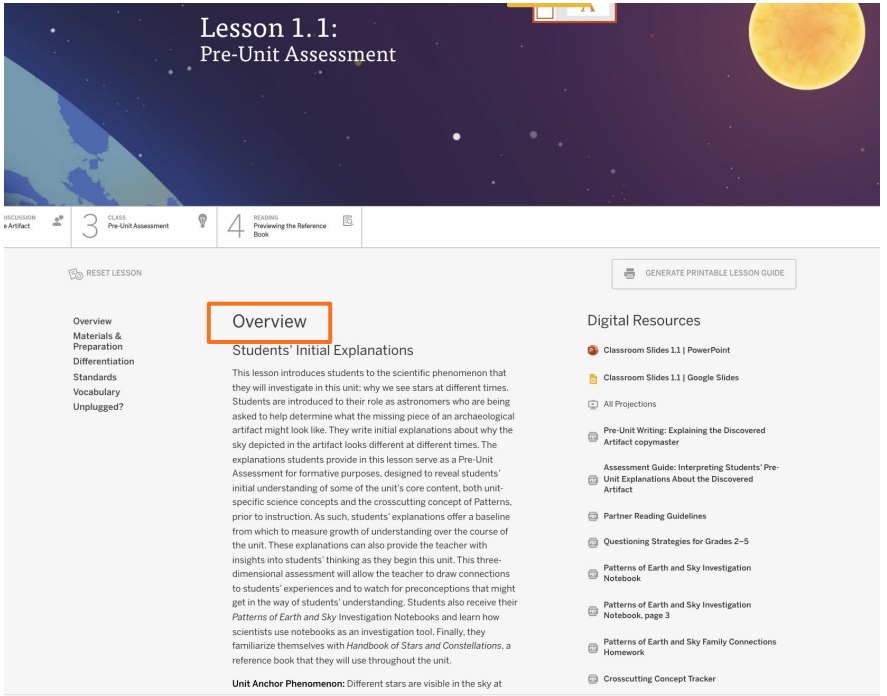


Preparing to teach

The Overview

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



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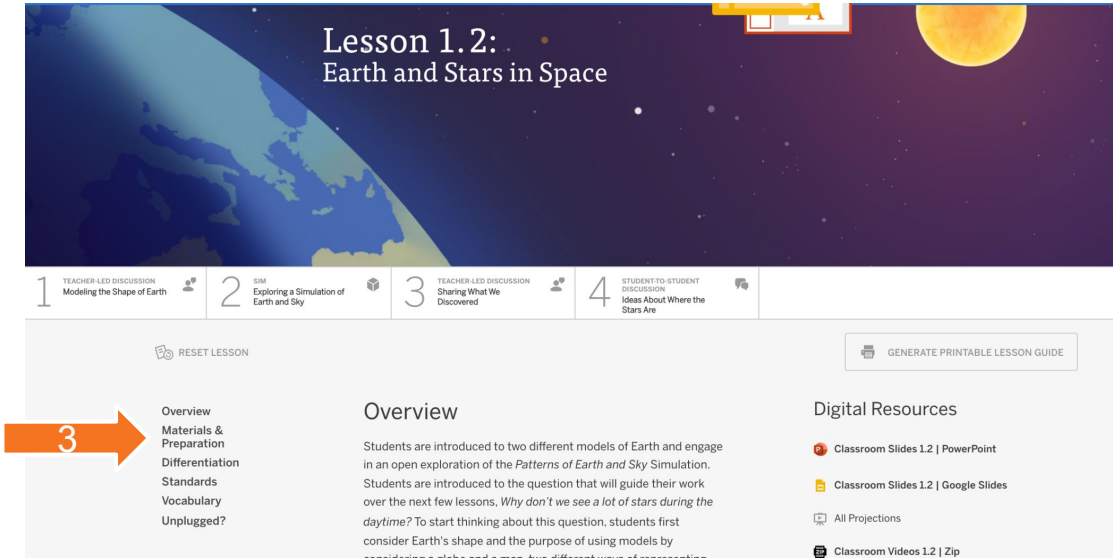
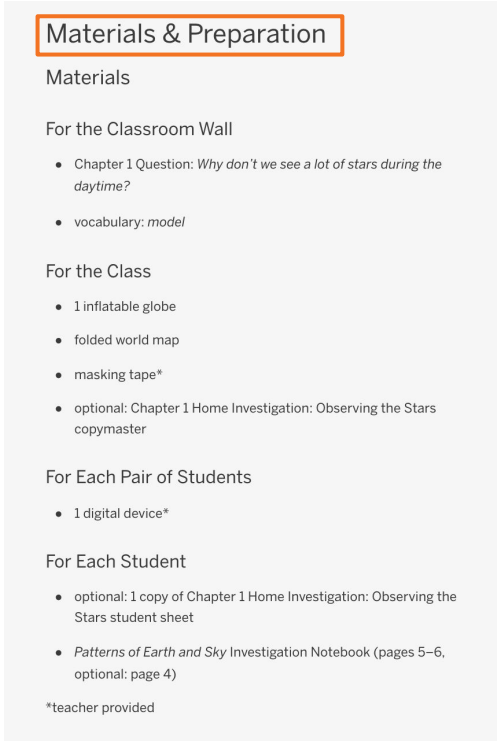


Preparing to teach

Materials and Prep

Review the materials needed for:

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



Materials & Preparation

Materials

For the Classroom Wall

- Chapter 1 Question: *Why don't we see a lot of stars during the daytime?*
- vocabulary: *model*

For the Class

- 1 inflatable globe
- folded world map
- masking tape*
- optional: Chapter 1 Home Investigation: Observing the Stars copymaster

For Each Pair of Students

- 1 digital device*

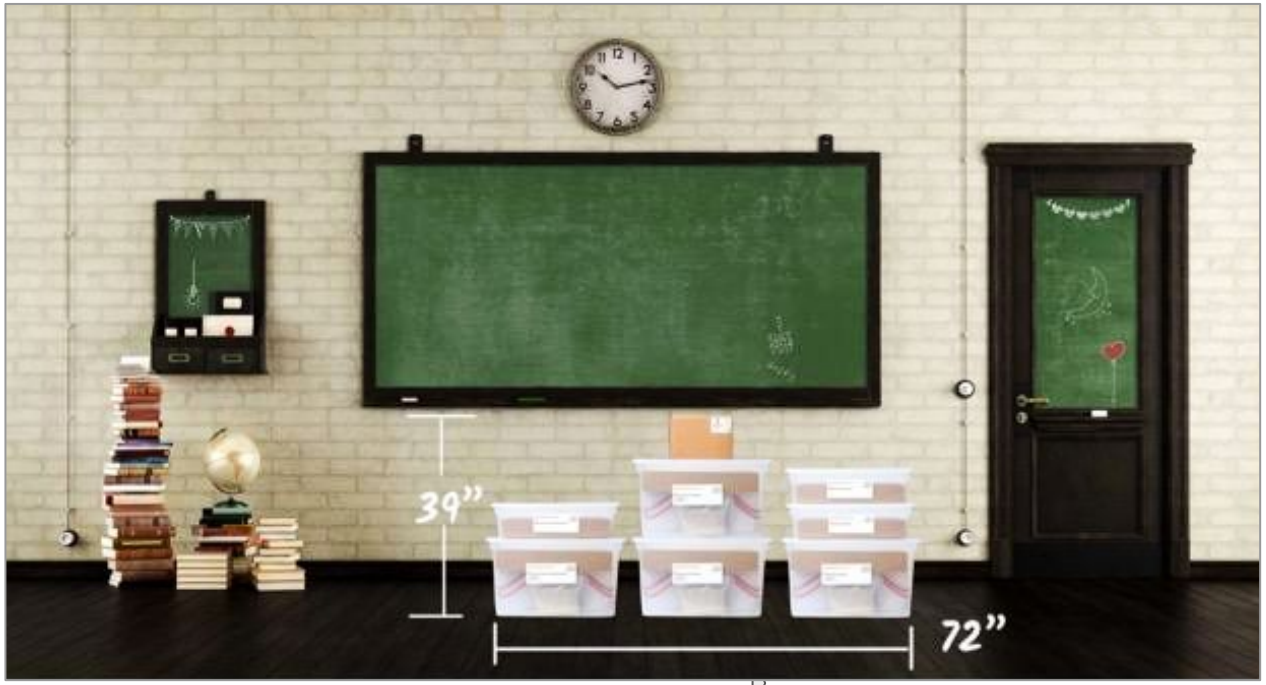
For Each Student

- optional: 1 copy of Chapter 1 Home Investigation: Observing the Stars student sheet
- *Patterns of Earth and Sky* Investigation Notebook (pages 5–6, optional: page 4)

*teacher provided

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

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

Welcome to Amplify Science!

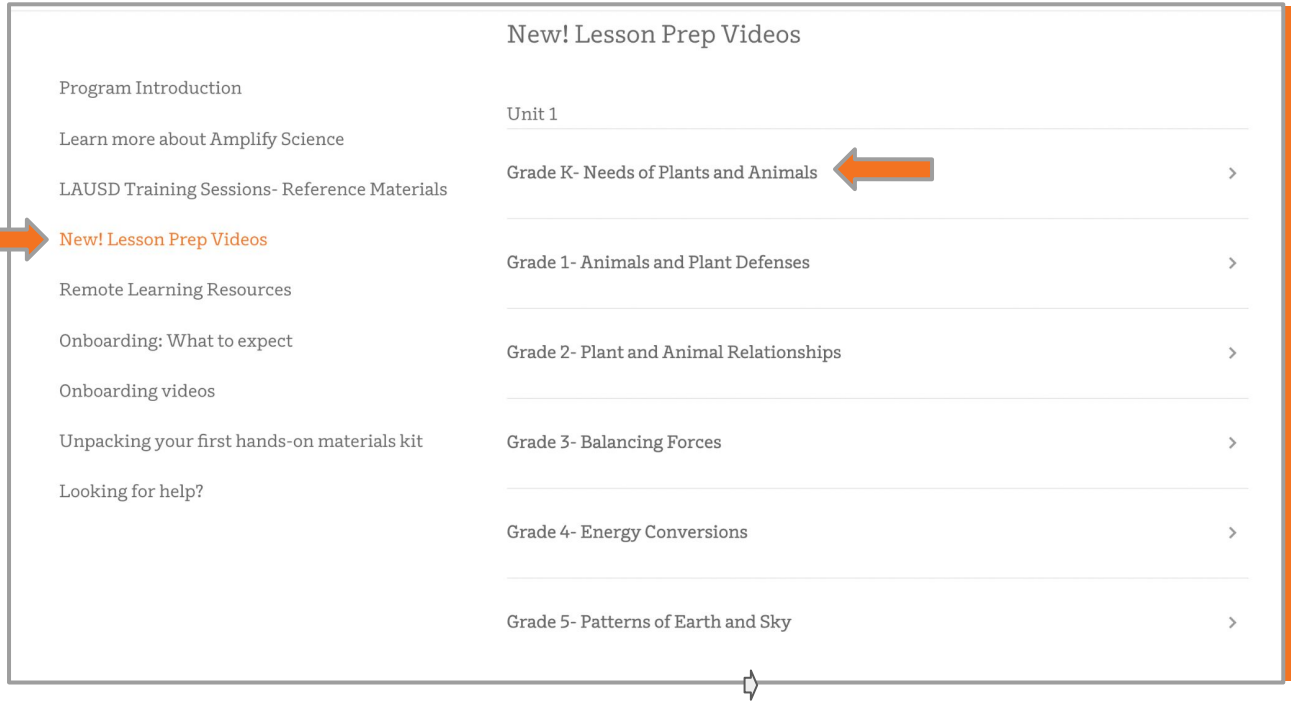
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

- 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!

Microsite: Unit 1, K-2 Lesson Prep Videos

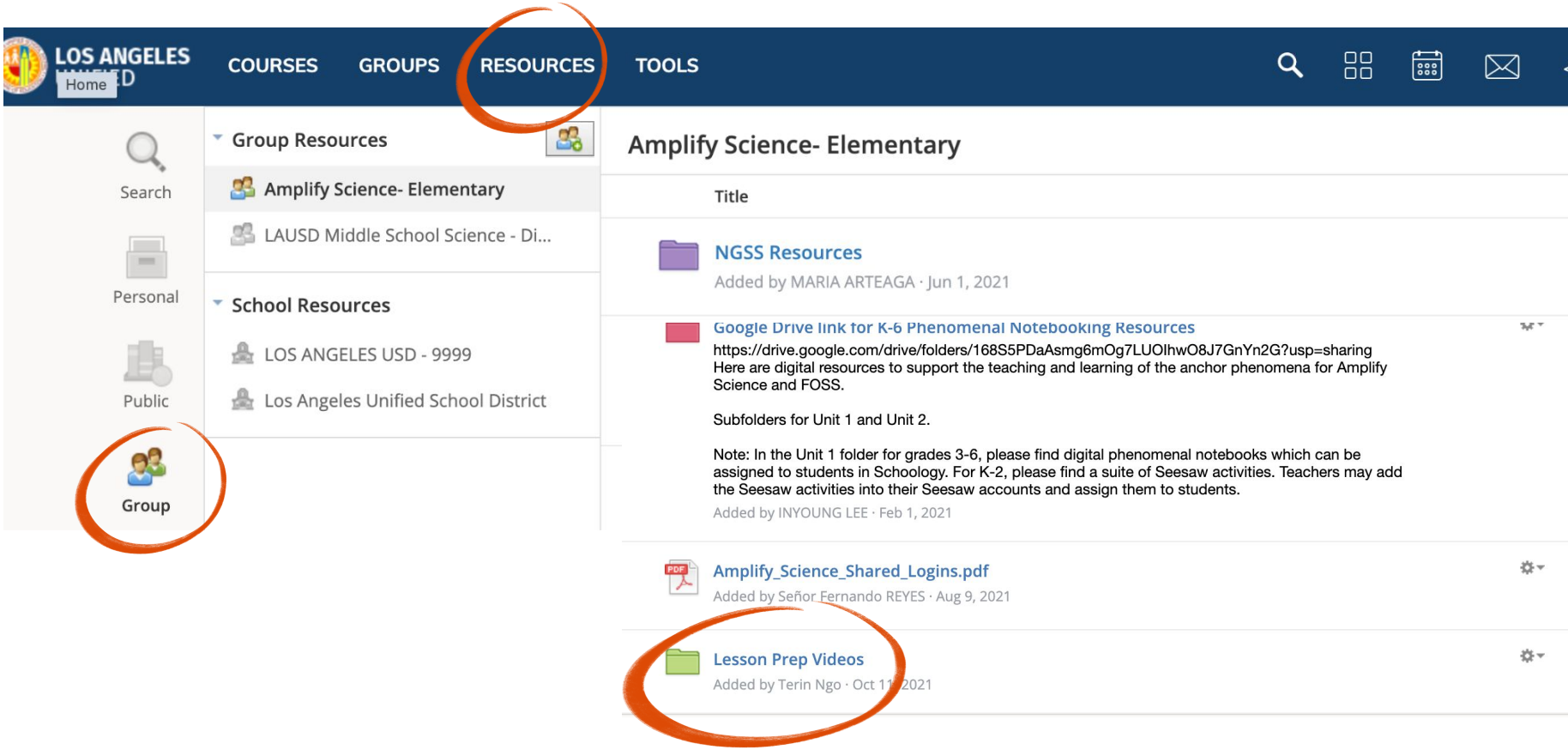
Classroom kits



Classroom Kits

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

LAUSD Schoology: Unit 1, 3-5 Lesson Prep Videos



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*

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

JUMP DOWN TO UNIT GUIDE

GENERATE PRINTABLE TEACHER'S GUIDE

Full Teacher's Guide
(Includes Unit Guide & all 22 Lesson Guides)

Lesson Guides Only

OPEN IN NEW TAB

RESET LESSON

Overview
Materials & Preparation
Differentiation
Standards
Vocabulary
Unplugged?

Overview

Through reading an informational text, students continue to explore how organisms can be similar and different. Students read the book *Blue Whales and Buttercups*, which provides many examples of the great diversity of organisms on Earth and the many ways in which they can be similar and different. Students are introduced to the sense-making strategy of asking questions and use this strategy to help them understand and engage with the book. The purpose of this lesson is to introduce students to the concept that even though organisms can be quite different, they are all related.

6 Lessons

Inheritance and Traits
Lesson Guides

Chapter 1 Activities

Chapter 1 Activities

Lesson 1.1: Pre-Unit Assessment

1 Introducing the Unit — TEACHER-LED DISCUSSION
2 Writing Initial Explanations — WRITING
3 Introducing the Investigation Notebook — TEACHER-LED DISCUSSION
4 Previewing the Reference Book — STUDENT-TO-STUDENT DISCUSSION

Lesson 1.2: Blue Whales and Buttercups

1 Introducing Asking Questions — TEACHER-LED DISCUSSION
2 Partner Reading — READING
3 Reflecting on Relatedness — TEACHER-LED DISCUSSION

Lesson 1.3: Observing Similarities and Differences

1 Observing Similarities and Differences in Animals — HANDS-ON
2 Observing Bird Traits — STUDENT-TO-STUDENT DISCUSSION
3 Thought Swap — STUDENT-TO-STUDENT DISCUSSION

Lesson 1.4: Introducing Species

T Observing Bird Sounds — TEACHER
1 Identifying Songbirds — TEACHER-LED DISCUSSION
2 Sorting Bear Species — HANDS-ON
3 Introducing the Problem Students Will Investigate — TEACHER-LED DISCUSSION

Hands On Material Organization

Completed for Inheritance and Traits

Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do
1.3	1	X		**Prep Prior:** For each group of 4: • 1 set of Animal Cards, clipped together (10 cards/set), I put them in envelopes and label them. For each group of 2: 1 set of Bird Cards, clipped together (8 cards/set)
1.4	2	X		**Prep Prior:**Bird cards from prior lesson, locate the Bear cards. Each pair of students will receive 1 bear card. Here are the bear groupings : • Black bear: 1, 5, 9, 13, 17 • Brown bear: 2, 6, 10, 14, 18 • Spectacled bear: 4, 8, 12, 16, 20 • Sun bear: 3, 7, 11, 15, 19
1.5	1	X		**Prep Prior:** For each group of 4: 1 set of Elk Mountain Pack Data Cards, clipped together (6 cards/set)
2.4	2	X	X	**Prep Prior:** Print out Parent 1 and 2 Instructions copymaster. Make two copies of each sheet so you have a total of three sheets of Parent 1 Instructions and three sheets of Parent 2 Instructions. Cut apart each Parent 1 and Parent 2 strip. You should have 18 Parent 1 strips and 18 Parent 2 strips. Each pair of students will receive 1 strip of instructions from each parent. Using a permanent marker, label 1 cup with "Instructions from Parent 1." On the other cup, write "Instructions from Parent 2." Place the respective strips in each cup. Each pair of students will choose one Parent 1 strip of instructions and one Parent 2 strip of instructions from the cups. **Prep Day of:** Each pair will get three pieces of clay: red, green, and yellow. Each piece of clay should be about 2 inches.
3.1	2	X		**Prep Prior:** For each group of 4: 1 set of Flamingo Family Data Cards, clipped together (3 cards/set)
3.3	3	X		**Prep Prior:** For each group of 4: Label 3 cups: cup 1, cup 2, cup 3. Each group will also need 1 bottle of red and 1 bottle of blue food coloring. Note: Each group will need approximately one cup of water for each of the three cups. Teacher will need to provide three stalks of celery (the lighter, inner stalks with leaves intact work best) per group. The length of the celery stalks you will need for the investigation will depend on the thickness of the stalks. Cut off the end of a stalk so the stalk measures approximately 10 inches. Place the stalk in a cup of water to ensure that the stalk does not cause the cup to tip over.
3.4	1	X		Trays from previous days celery experiment
4.3	1	X		**Prep Prior:** For each group of 4: 1 set of Sparrow Family Data Cards, clipped together (3 cards/set) For each group of 2: crayons and/or color pencils (minimum: gray, brown, black, yellow, pink)*

4 Easy Steps to Teaching a lesson

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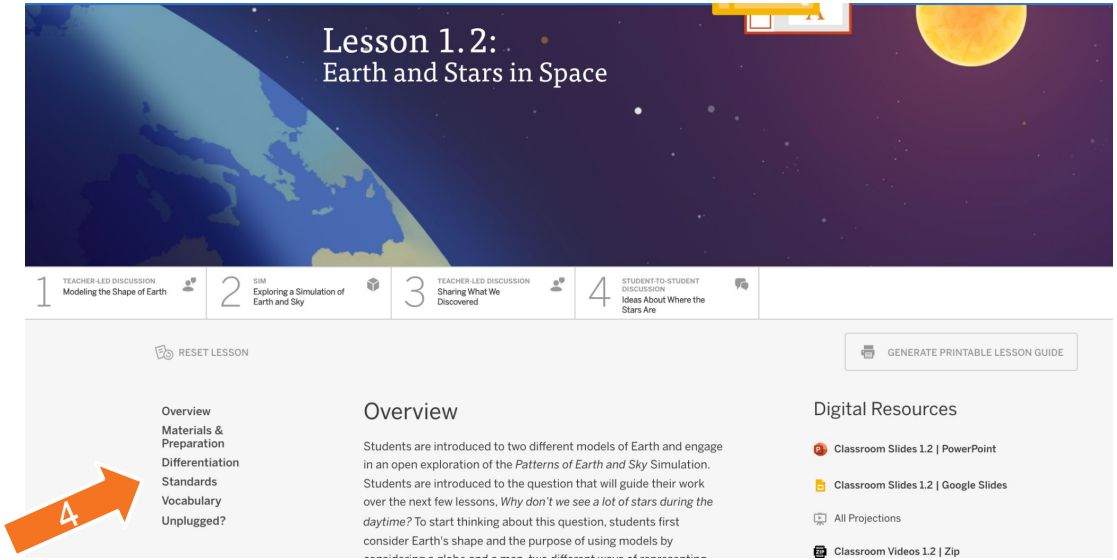
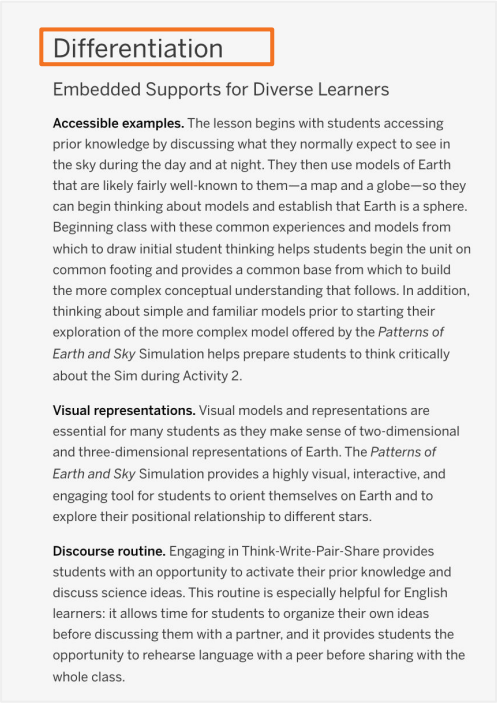


Preparing to Teach

Lesson-specific differentiation

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



Differentiation

Embedded Supports for Diverse Learners

Accessible examples. The lesson begins with students accessing prior knowledge by discussing what they normally expect to see in the sky during the day and at night. They then use models of Earth that are likely fairly well-known to them—a map and a globe—so they can begin thinking about models and establish that Earth is a sphere. Beginning class with these common experiences and models from which to draw initial student thinking helps students begin the unit on common footing and provides a common base from which to build the more complex conceptual understanding that follows. In addition, thinking about simple and familiar models prior to starting their exploration of the more complex model offered by the *Patterns of Earth and Sky* Simulation helps prepare students to think critically about the Sim during Activity 2.

Visual representations. Visual models and representations are essential for many students as they make sense of two-dimensional and three-dimensional representations of Earth. The *Patterns of Earth and Sky* Simulation provides a highly visual, interactive, and engaging tool for students to orient themselves on Earth and to explore their positional relationship to different stars.

Discourse routine. Engaging in Think-Write-Pair-Share provides students with an opportunity to activate their prior knowledge and discuss science ideas. This routine is especially helpful for English learners: it allows time for students to organize their own ideas before discussing them with a partner, and it provides students the opportunity to rehearse language with a peer before sharing with the whole class.

4 Easy Steps to Teaching a lesson

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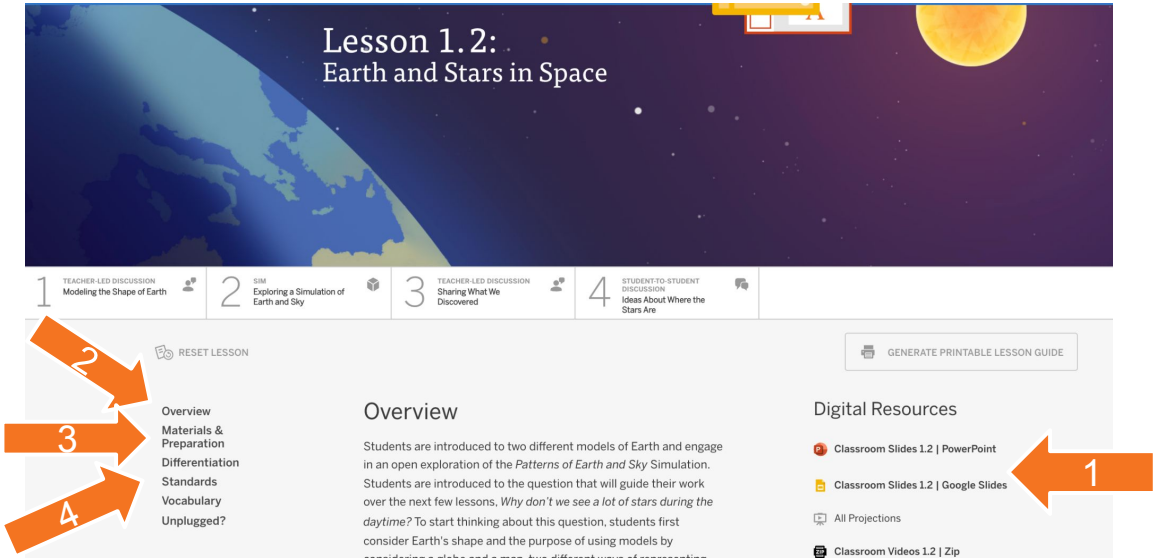

Lesson __	Activity Overview	From the Lesson at a glance in the overview
What is the purpose of this lesson? From the lesson overview	**Activity 1 (##min)**	
What will students learn?	**Activity 2 (##min)**	
3-D Statement (identify SEP, CCC, and DCI): From the lesson standards	**Activity 3 (##min)**	
Student Resources: From the lesson materials and preparation	**Activity 4 (##min)**	
Assessment Opportunities: From the lesson at a glance in the overview or classroom slides	**Activity 5 (##min)**	

Lesson _1.2_	Activity Overview	
What is the purpose of this lesson?	Activity 1 (10 min)	Introducing the Problem
What will students learn?	Activity 2 (10 min)	Discussing Initial Ideas
3-D Statement (identify SEP, CCC, and DCI):	Activity 3 (20 min)	Making Blocks Move
Student Resources:	Activity 4 (20 min)	Sharing Observations
Assessment Opportunities: n/a	Activity 5 (## min)	

(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 __	Activity Overview	
What is the purpose of this lesson? This lesson reinforces the idea that Earth is a sphere, gives students a chance to consider how and when to use models, and introduces students to the Sim that they will be using throughout the unit.	**Activity 1 (20 min)**	**Modeling the Shape of Earth**
What will students learn? Earth is a sphere. Scientists use models to explore their ideas about the real world. Models need to be like the things they represent in some ways, but models are different from what they represent in other ways. Different models can be useful for different purposes.	Activity 2 (20 min)	**Exploring a Simulation of Earth and Sky**
3-D Statement (identify SEP, CCC, and DCI): Students explore physical and digital models to begin understanding the shape and scale (scale, proportion, and quantity) of objects in space and communicate their initial ideas about where the stars are in space.	Activity 3 (10min)	**Sharing What We Discovered**
Student Resources: 1 digital device*, optional: 1 copy of Chapter 1 Home Investigation: Observing the Stars student sheet, *Patterns of Earth and Sky* Investigation Notebook (pages 5-6, optional: page 4)	**Activity 4 (10 min)**	**Ideas About Where the Stars Are**
Assessment Opportunities: Activity 1	**Activity 5 (##min)**	

4 Easy Steps to Teaching a lesson

DIRECTIONS:

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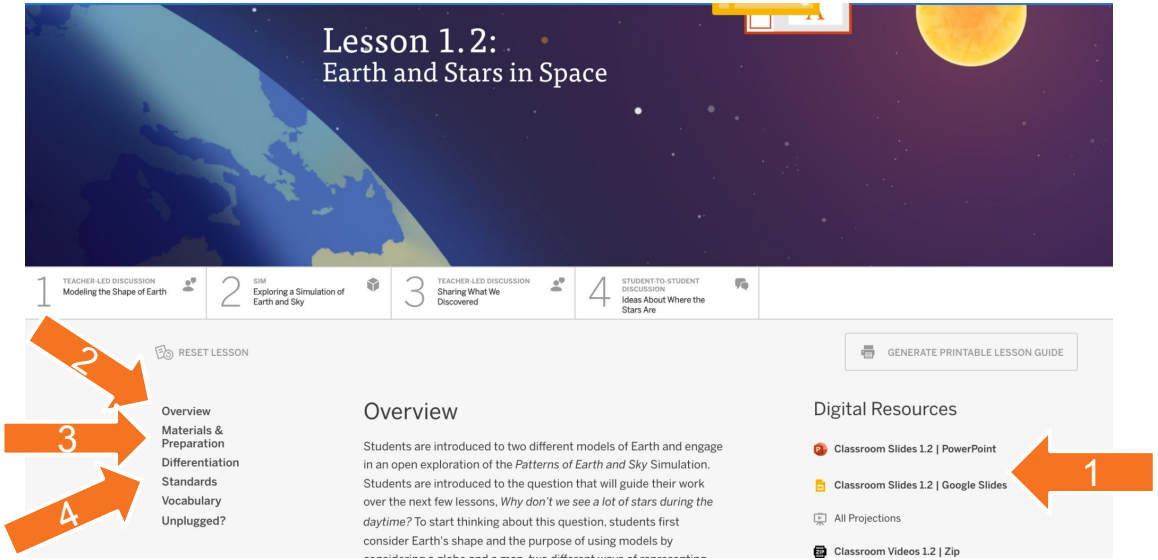
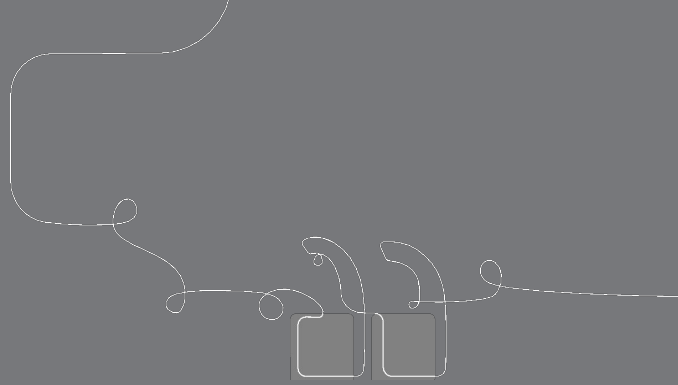
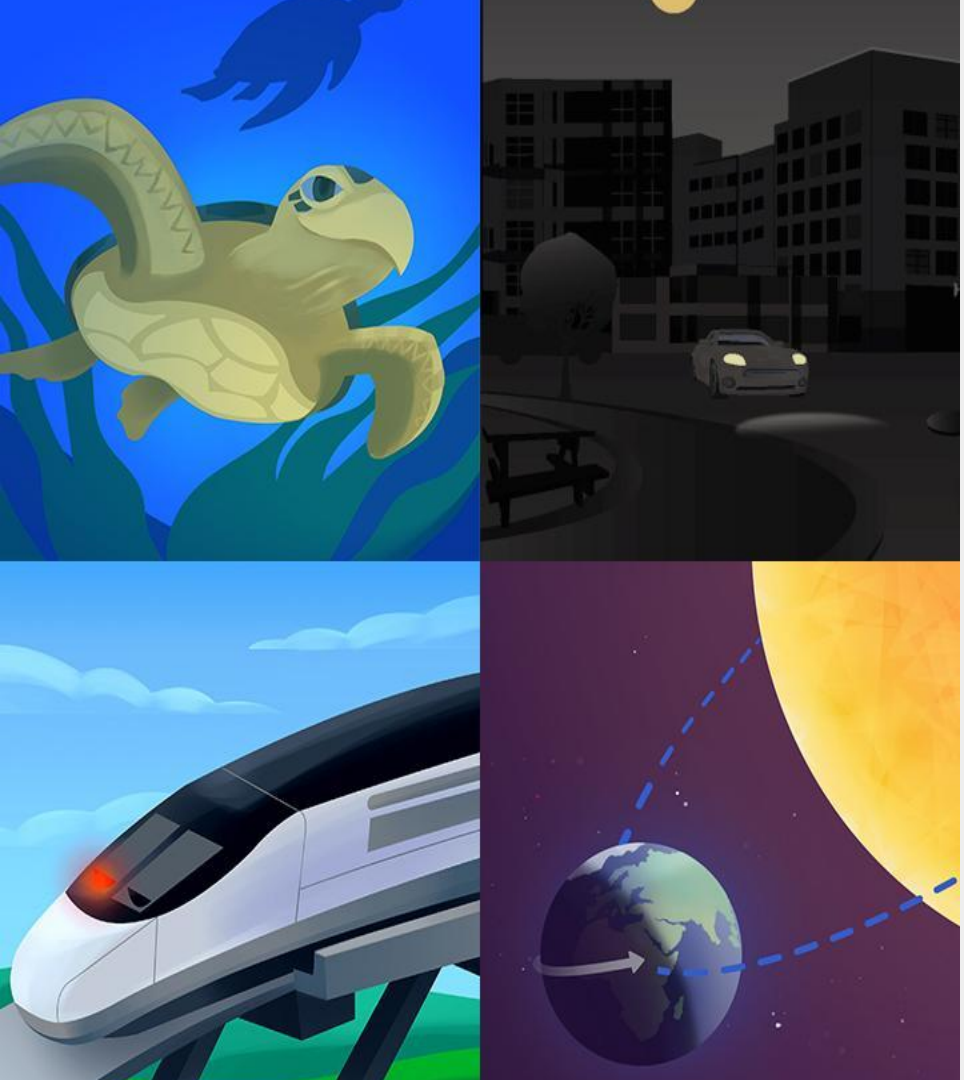
3. Explore the **Materials & Preparation** document.
4. Read the **Differentiation** document.
5. If you have time, navigate to **Lesson 1.3** and repeat steps 1-4.



Questions?





Plan for the day: Part 2

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

Additional resources

Welcome, caregivers!

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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!

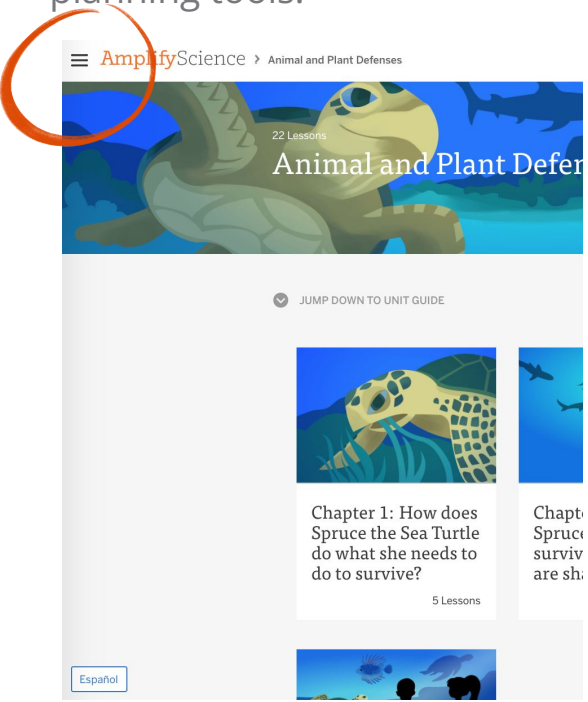
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

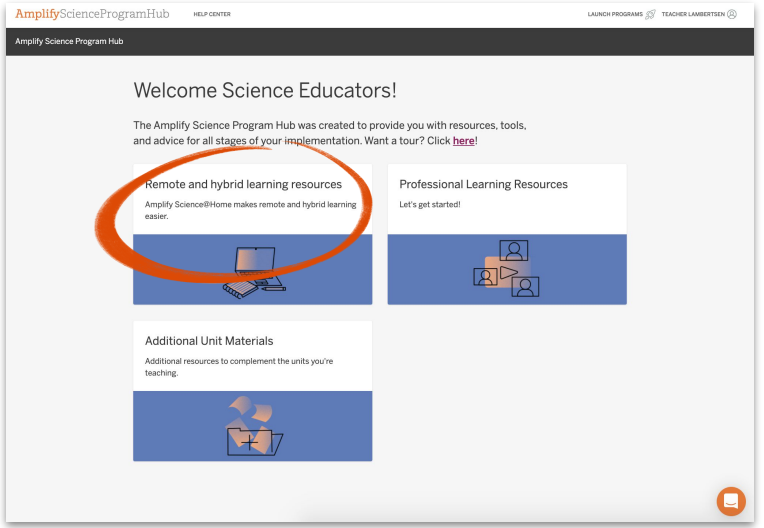
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
-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

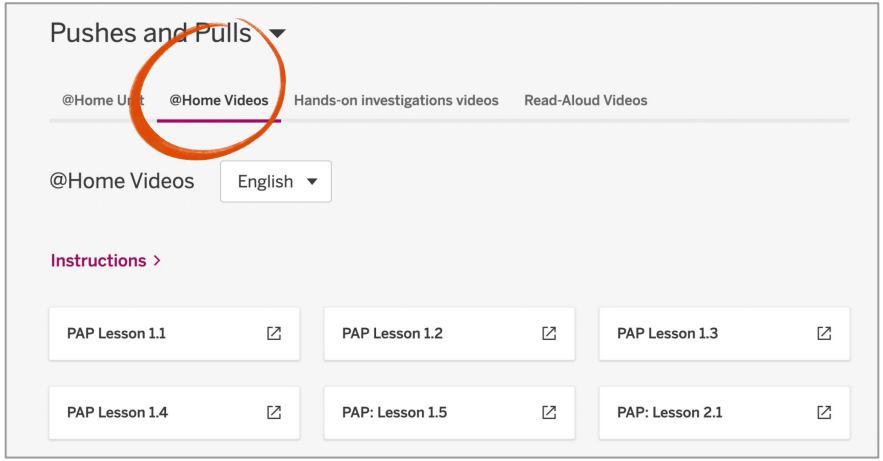
Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Program Hub

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



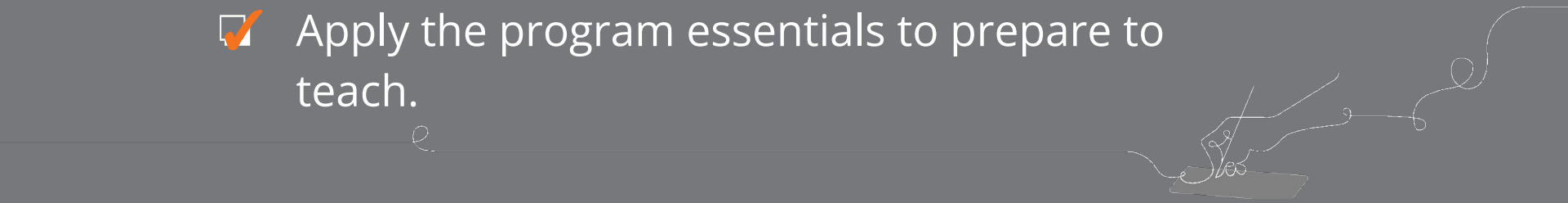




Overarching goals

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