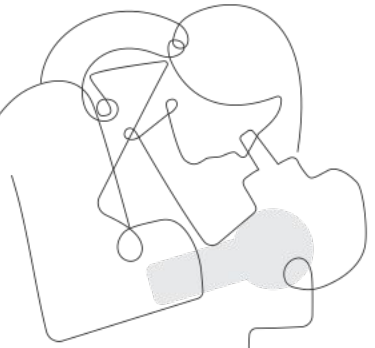
Do Now: *In the chat, share one new skill you and/or your students have learned this year during remote learning.*

Amplify Science

Unpacking Patterns of Earth and Sky for Hybrid Learning

Unit 4, Grade 5



LAUSD

4/x/2021

Presented by Your Name

In a new tab, please log in to your Amplify Science account through Schoology.

Amplify.

Norms: Establishing a culture of learners

Please keep your camera on, if possible.

Take some time to orient yourself to the platform

- *"Where's the chat box? What are these squares at the top of my screen?, where's the mute button?"*

Mute your microphone to reduce background noise unless sharing with the group

The chat box is available for posting questions or responses to during the training

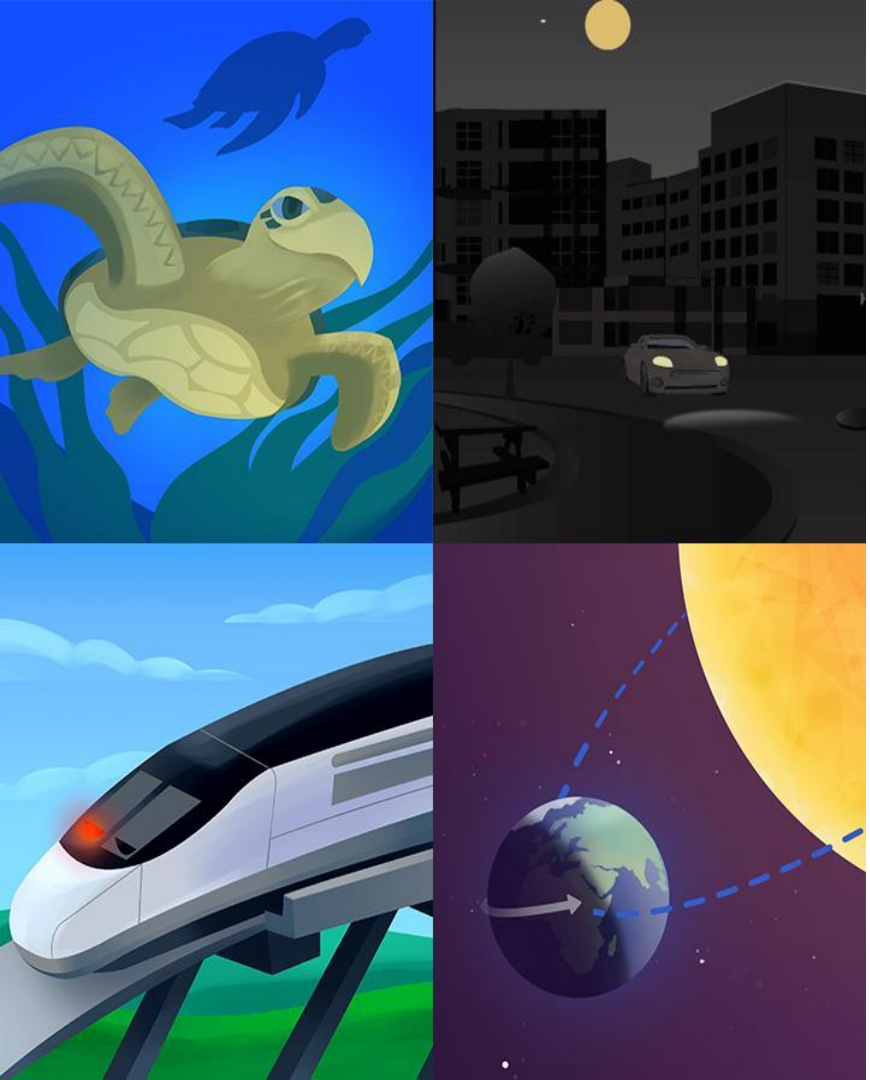
Make sure you have a note-catcher present

Engage at your comfort level - chat, ask questions, discuss, share!

Objectives

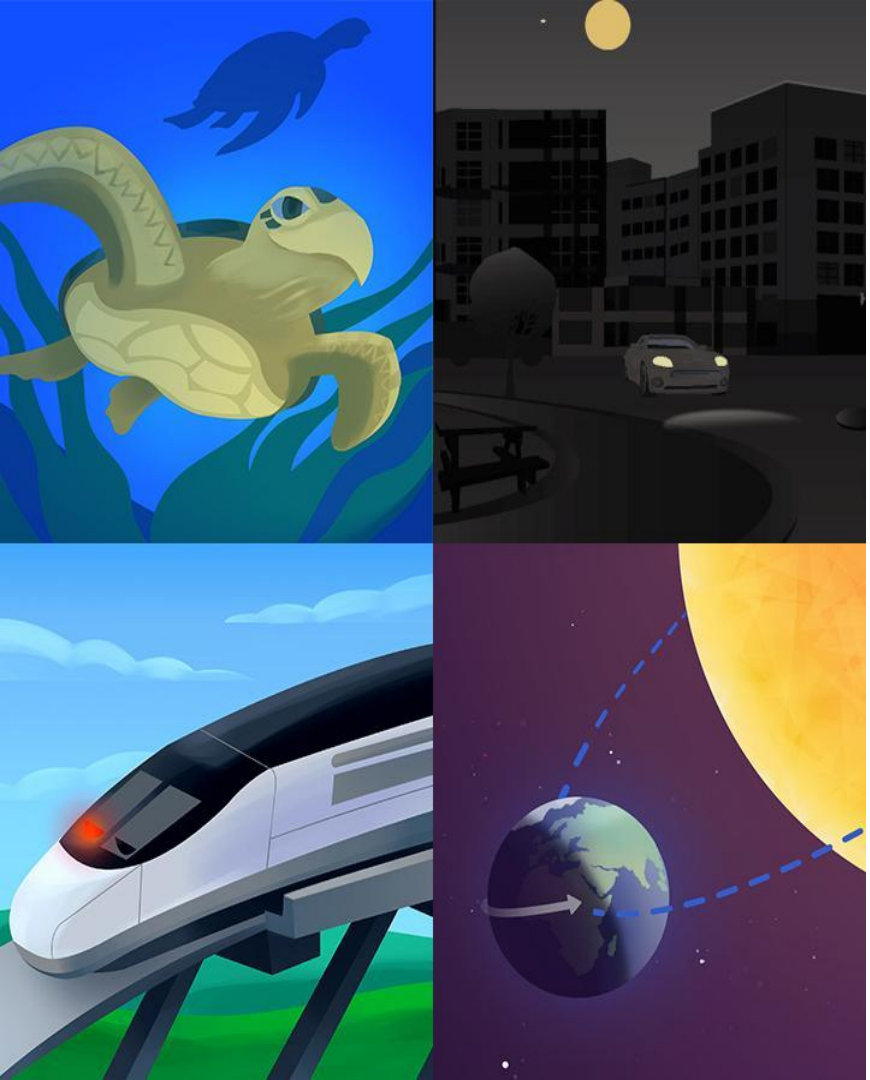
By the end of this workshop, you will be able to…

- Describe how students' conceptual understanding builds through the unit
- Explain how students figure out the phenomenon throughout the unit
- Make a plan for implementing Amplify Science within your class schedule and instructional format



Plan for the day

- **Framing the day**
  - Remote learning reflection
  - Revisiting the Amplify Approach
- **Phenomenon at the unit level**
  - Navigation refresher (standard curriculum)
  - Storyline and science concepts
- **Planning to teach**
  - Navigation refresher (@Home resources)
  - Lesson walkthrough
  - Collaborative planning time
- **Closing**
  - Reflection & survey



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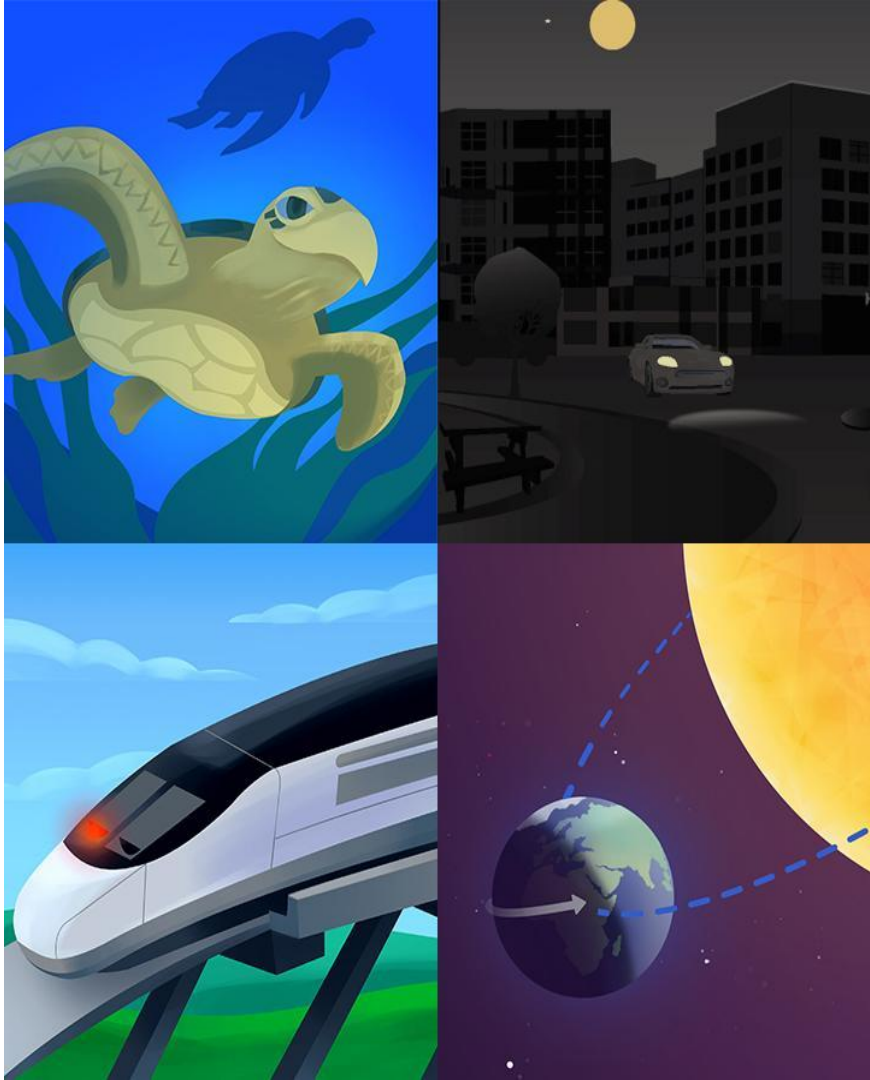
Opening reflection

Jamboard

Having taught Amplify Science in a remote setting, what **skills and/or practices** have you developed with your students that you can **leverage as your shift to hybrid learning?**



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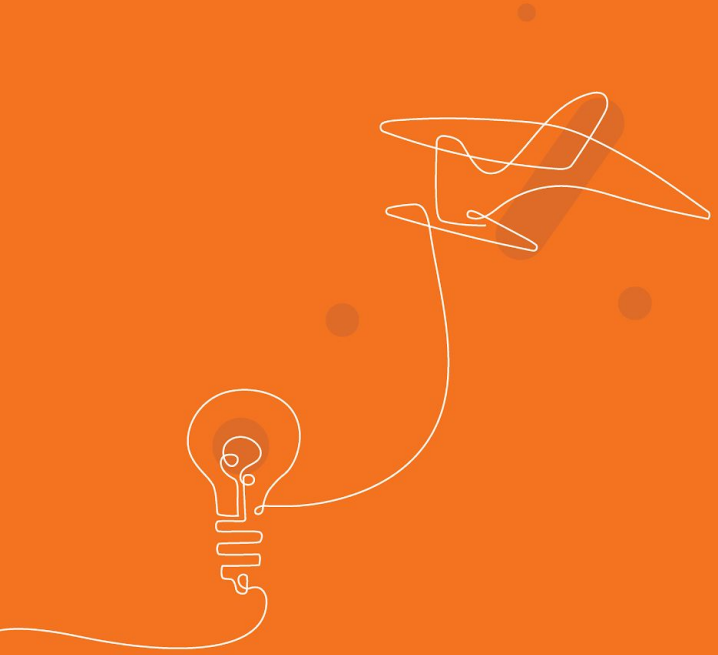
Students are able to use technology more independently.



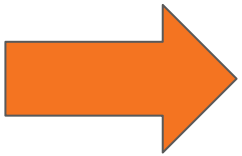
Key aspects of the Amplify Science instructional approach

Phenomenon-based instruction

A shift in science instruction

from learning about

(like a student)

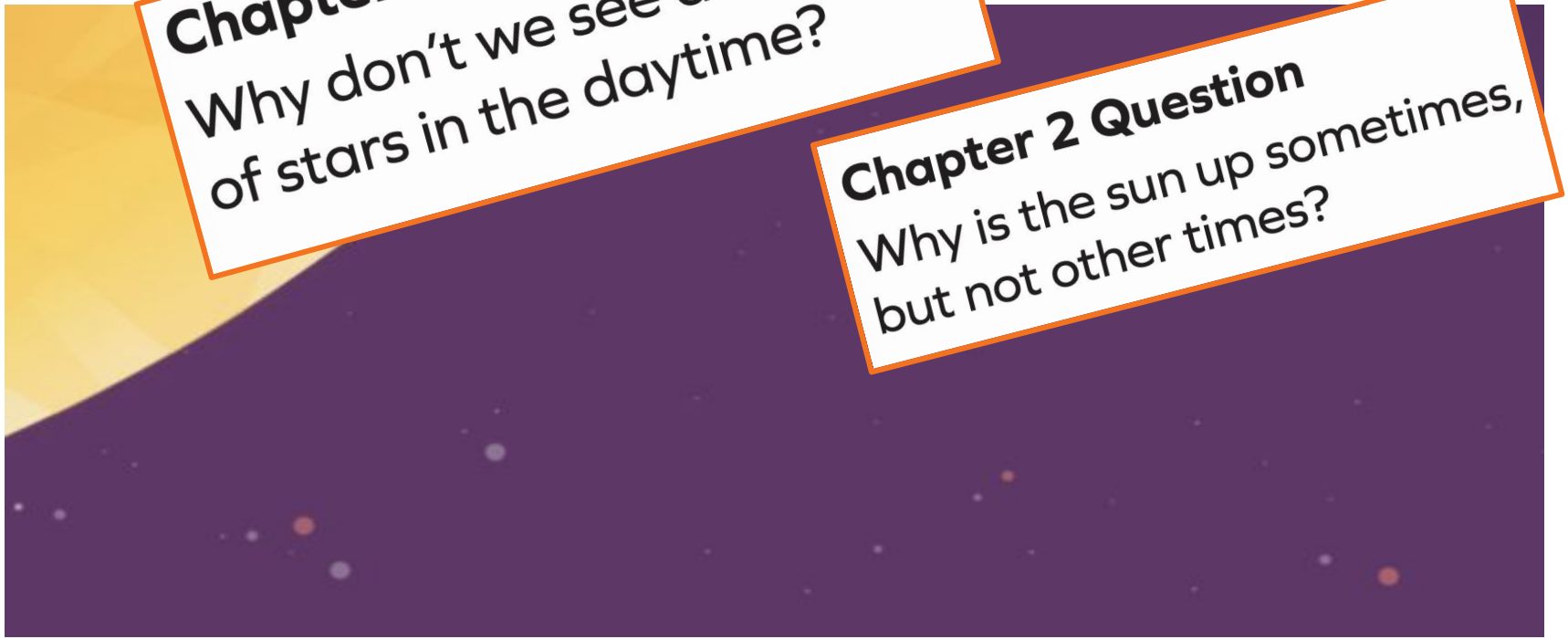


to figuring out

(like a scientist)

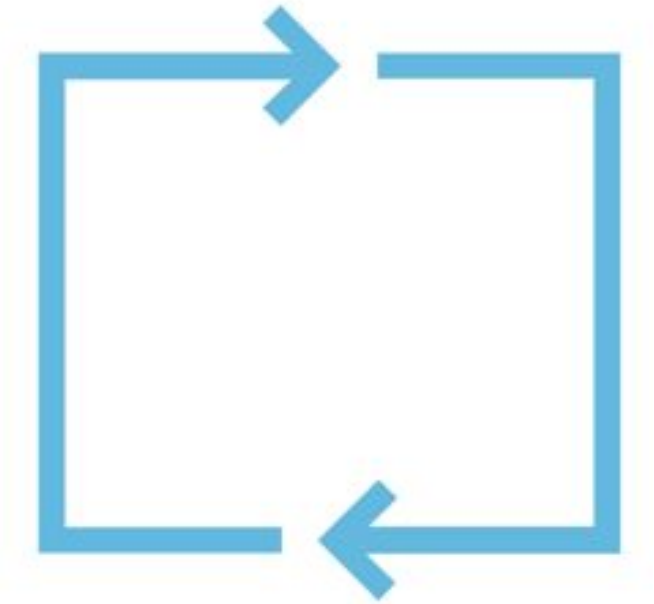
Scientific phenomenon: An observable event in the natural world you can use science ideas to explain or predict

Coherent storylines

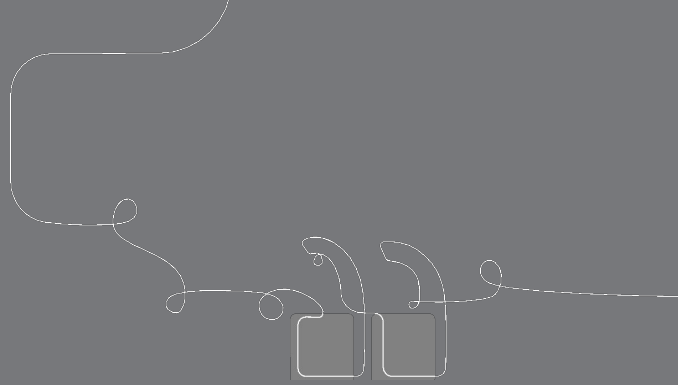


Multimodal learning

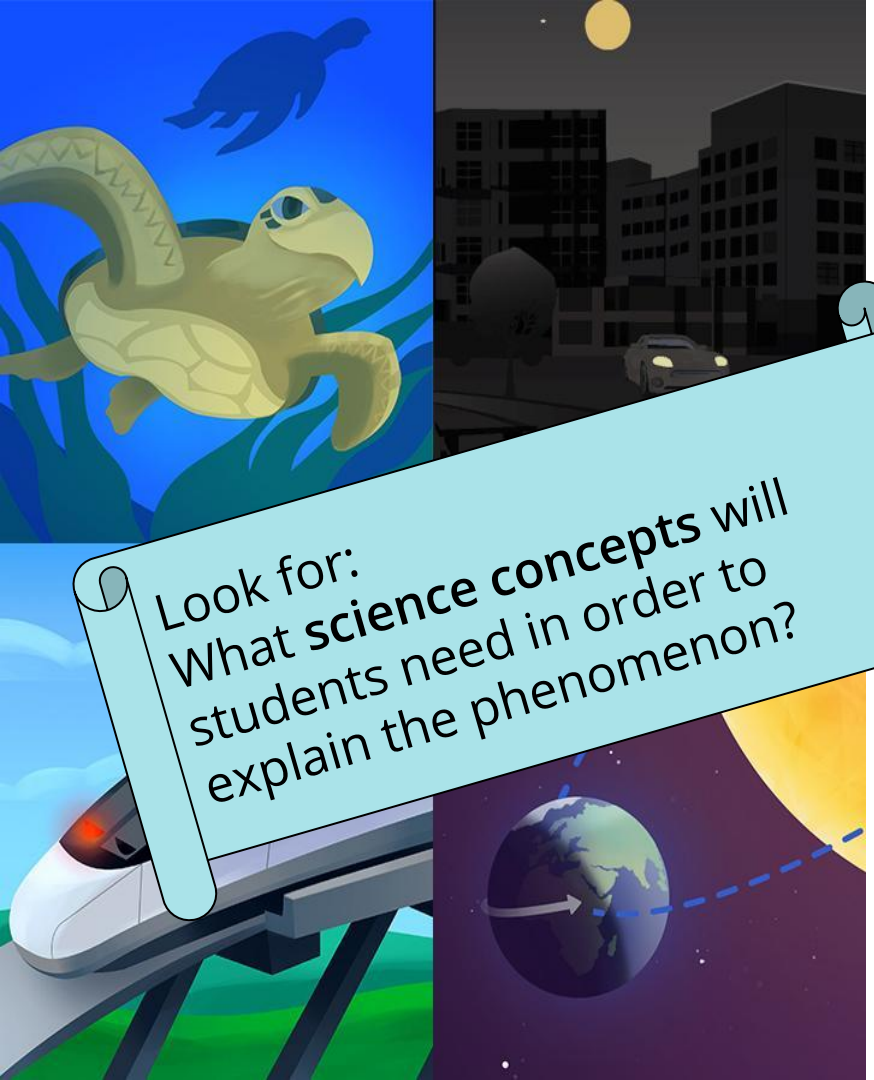
Gathering evidence over multiple lessons



Do,
Talk,
Read,
Write,
Visualize



Questions?



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Planning to teach

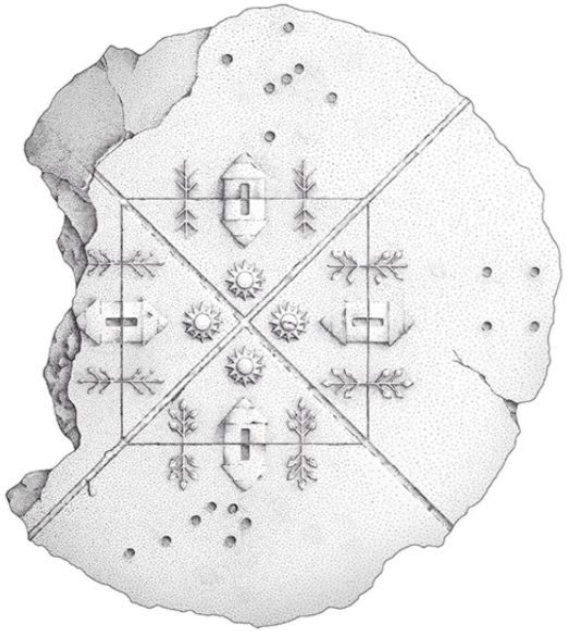
- Navigation refresher (@Home resources)
- Lesson walkthrough
- Collaborative planning time

- **Closing**
  - Reflection & survey

Explaining the phenomenon: science concepts

Please respond in the chat

What **science concepts** do you think students need to understand in order to construct an explanation of what is shown on the artifact and what might be on the missing piece?

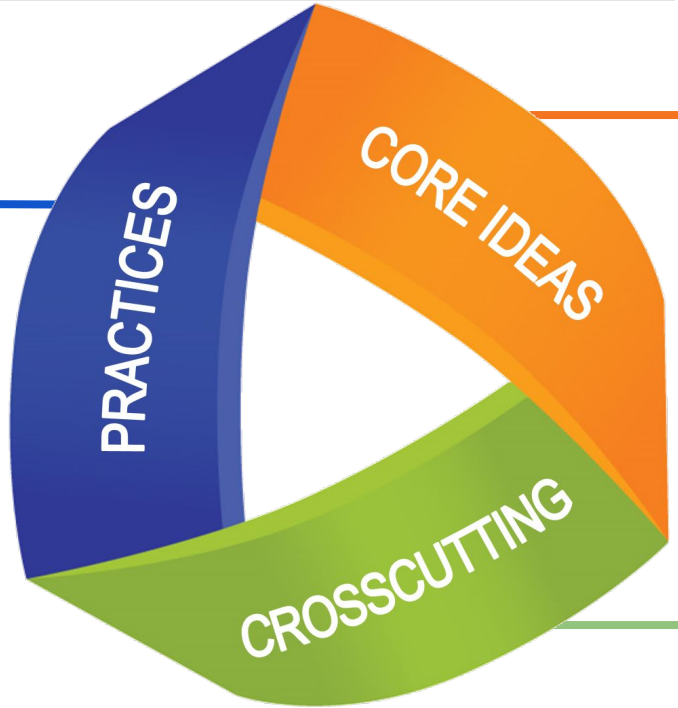


Next Generation Science Standards

Designed to help students build a cohesive understanding of science

What scientists do

Science and Engineering Practices



What scientists want to know

Disciplinary Core Ideas

How scientists think

Crosscutting Concepts

Key

Practices | Disciplinary Core Ideas | Crosscutting Concepts

Unit Level

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

Navigation Temperature Check

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

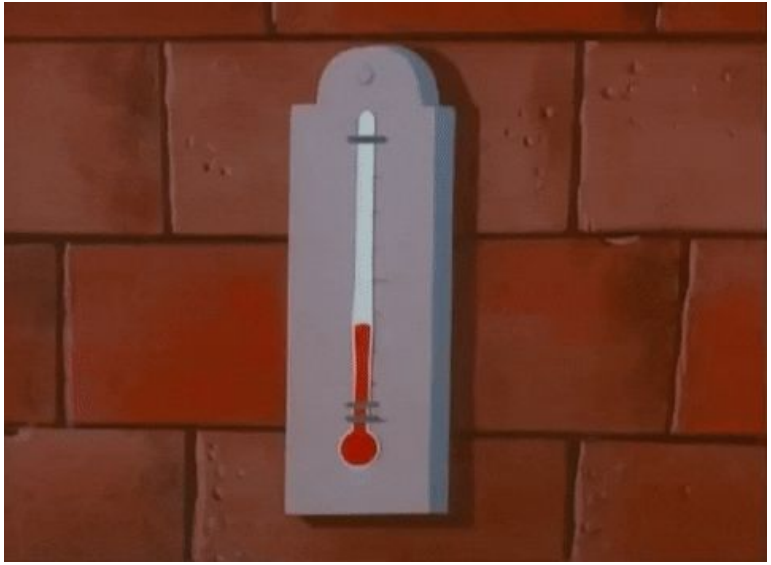
1 = Extremely Uncomfortable

2 = Uncomfortable

3 = Mild

4 = Comfortable

5 = Extremely Comfortable



Unit

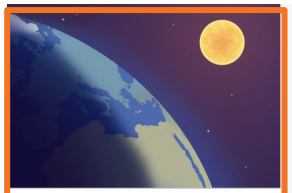
Chapters

Lessons

Activities

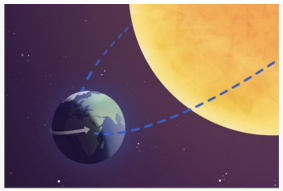
22 Lessons

Patterns of Earth and Sky



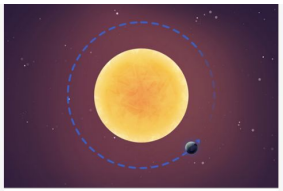
Chapter 1: Why don't we see a lot of stars in the daytime?

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

Lesson 1.1: Pre-Unit Assessment

Lesson 1.2: Earth and Stars in Space

Lesson 1.3: How Big Is Big? How Far Is Far?

Lesson 1.4: Distances to the Stars

Lesson 1.5: Investigating Size and Distance

Lesson 1.6: The Brightness of Starlight

Lesson 1.7: Explaining When We See Stars

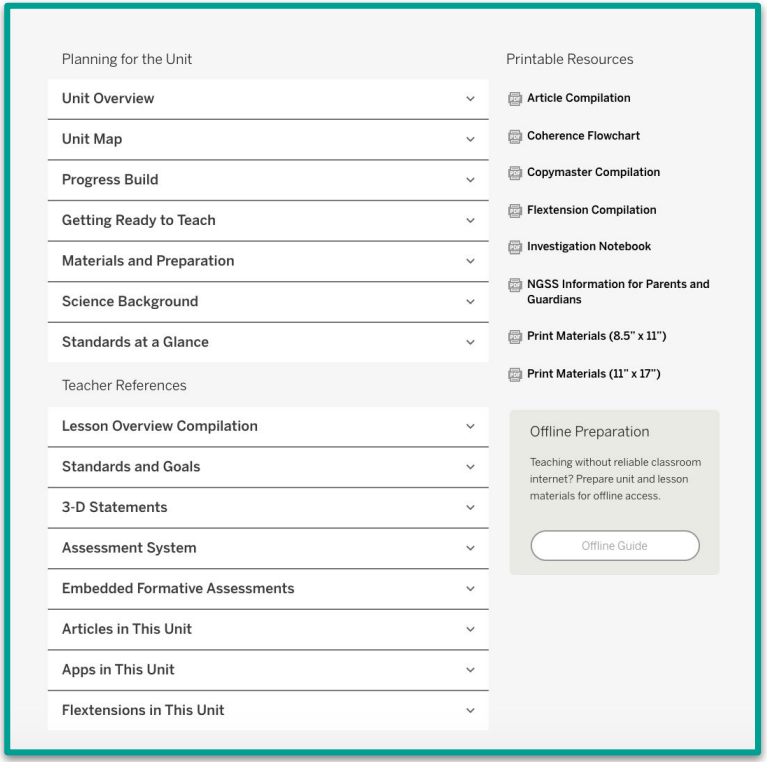
1 TEACHER-LED DISCUSSION
Introducing the Unit

2 TEACHER-LED DISCUSSION
Introducing the Artifact

3 CLASS
Pre-Unit Assessment

4 READING
Previewing the Reference Book

Unit Guide Resources



Unit Guide resources

Once a unit is selected, select **JUMP DOWN TO UNIT GUIDE** in order to access all unit-level resources in an Amplify Science unit.

Planning for the unit

Unit Overview	Describes what's in each unit, the rationale, and how students learn across chapters
Unit Map	Provides an overview of what students figure out in each chapter, and how they figure it out
Progress Build	Explains the learning progression of ideas students figure out in the unit
Getting Ready to Teach	Provides tips for effectively preparing to teach and teaching the unit in your classroom
Materials and Preparation	Lists materials included in the unit's kit, items to be provided by the teacher, and briefly outlines preparation requirements for each lesson
Science Background	Adult-level primer on the science content students figure out in the unit
Standards at a Glance	Lists Next Generation Science Standards (NGSS) (Performance Expectations, Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts), Common Core State Standards for English Language Arts, and Common Core State Standards for Mathematics

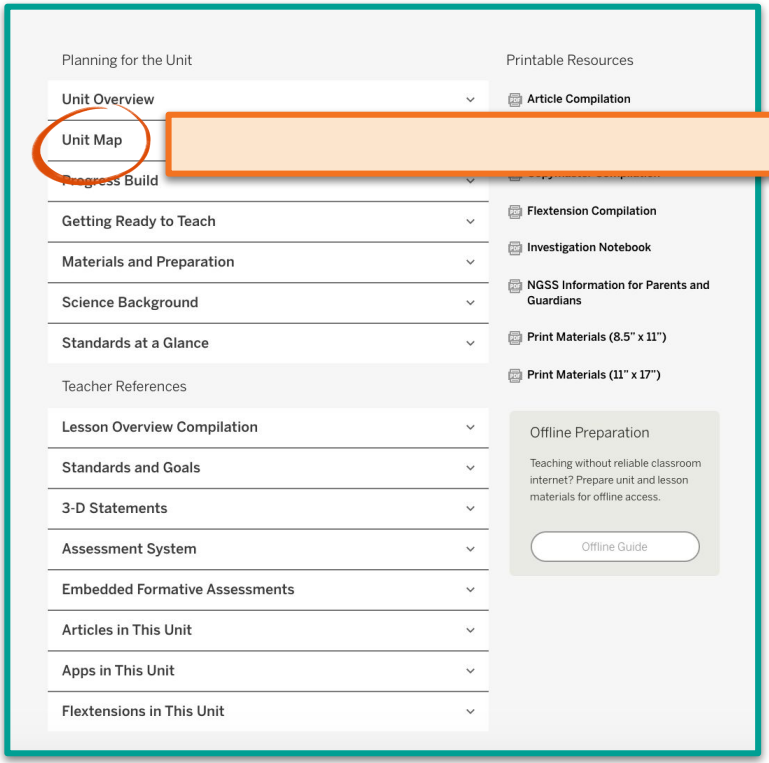
Teacher references

Lesson Overview Compilation	Lesson Overview of each lesson in the unit, including lesson summary, activity purposes, and timing
Standards and Goals	Lists NGSS (Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts) and CCSS (English Language Arts and Mathematics) in the unit, explains how the standards are reached
3-D Statements	Describes 3-D learning across the unit, chapters, and in individual lessons
Assessment System	Describes components of the Amplify Science Assessment System, identifies each 3-D assessment opportunity in the unit
Embedded Formative Assessments	Includes full text of formative assessments in the unit
Books in This Unit	Summarizes each unit text and explains how the text supports instruction
Apps in This Unit	Outlines functionality of digital tools and how students use them (in grades 2-5)

Printable resources

Copymaster Compilation	Compilation of all copymasters for the teacher to print and copy throughout the unit
Investigation Notebook	Digital version of the Investigation Notebook, for copying and projecting
Multi-Language Glossary	Glossary of unit vocabulary in multiple languages
Print Materials (8.5" x 11")	Digital compilation of printed cards (i.e. vocabulary cards, student card sets) provided in the kit
Print Materials (11" x 17")	Digital compilation of printed Unit Question, Chapter Questions, and Key Concepts provided in the kit

Unit Map



Patterns of Earth and Sky
Planning for the Unit

Unit Map

Unit Map

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?

Taking on the role of astronomers, students help a team of archaeologists at the fictional Museum of Archaeology figure out what the missing piece of a recently discovered artifact might have depicted. As they learn about the sun and other stars and the movement of Earth, students can explain what is shown on the artifact and what might be on the missing piece.

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

Students figure out: 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. During daytime, the sun's brightness overwhelms the brightness of other stars, and that is why we can only see the sun during the daytime. This is why the artifact depicts the sky in different scenes: the sun in the sky is distinct from depictions showing all other stars in the sky.

How they figure it out: Through reading and investigating in the *Patterns of Earth and Sky* Simulation, students gather data about the size and distance of objects in space relative to Earth. Students create a physical model demonstrating the distances of various stars and the sun from Earth and conclude that it is the immense distance of Earth from other stars and the sun's proximity to Earth that creates the illusion of other stars being much smaller than the sun. By gathering additional evidence in text and photos and a video, students come to understand why they can't see other stars in the daytime.

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

Students figure out: The sun is only up sometimes and not at other times because Earth spins once per day. Since gravity pulls us down toward Earth, we are carried with Earth as it spins. What we see up above us changes as we spin. When the side of Earth we are on faces the sun, the sun is up in the sky. When Earth spins to face away from the sun, the sun is not up, and we can see other stars. This is why each artifact panel shows a repeating pattern: the sun is in the sky, then other stars are in the sky, and so on.

How they figure it out: Through a series of observations in the Simulation, participation in a kinesthetic model, and video evidence, students investigate what causes the daily pattern of sun and stars that can be seen from Earth. Students read and model to investigate Earth's gravitational pull and conclude which way is *up*.

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

Students figure out: As Earth spins, it also orbits around the sun once a year. Since Earth is moving, this means that throughout the year, Earth is in different places in its path around the sun. 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 they figure it out: Using the Simulation and a kinesthetic classroom model, students investigate what constellations can be seen over the course of a year and across multiple years. They carefully plan a systematic investigation with the Simulation and look for patterns in the data. Students read about Earth's orbit around the sun and apply their new ideas to the classroom model in order to understand the yearly pattern of star visibility.

Pages 2-3

Page 6

Applying conceptual understanding to explain the phenomenon

Use ideas from the Progress Build and Unit Map to make notes about the conceptual and explanatory builds in your unit.

	Science concepts	Explanation of the phenomenon
	Students figure out...	*So they can explain...*
Chapter 1	The stars all all around Earth in every direction. Because the sun is closer to Earth than other stars, it appears bigger and brighter. The sun's light overwhelms the brightness of other stars.	The artifact depicts the sky in different scenes, the sun in the sky is distinct from depictions showing all other stars in the sky.

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How they figure it out: Through a series of observations in the Simulation, participation in a kinesthetic model, and video evidence, students investigate what causes the daily pattern of sun and stars that can be seen from Earth. Students read and model to investigate Earth's gravitational pull and conclude which way is *up*.

Chapter 2	The sun shows only when the earth has rotated and is facing the sun. When the earth rotates away from the sun, we are able to see other stars.	Each artifact panel shows a repeating pattern: the sun is in the sky, then other strs are in the sky, etc.
Chapter 3		
Chapter 4		

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

Students figure out: As Earth spins, it also orbits around the sun once a year. Since Earth is moving, this means that throughout the year, Earth is in different places in its path around the sun. 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.

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Chapter 3	As Earth spins, it orbits around the sun once a year. This changes the view of the stars in the nighttime sky.	The artifact shows different constellations in the different nighttime panels.
Chapter 4		

Applying conceptual understanding to explain the phenomenon

Use ideas from the Progress Build and Unit Map to make notes about the conceptual and explanatory builds in your unit.

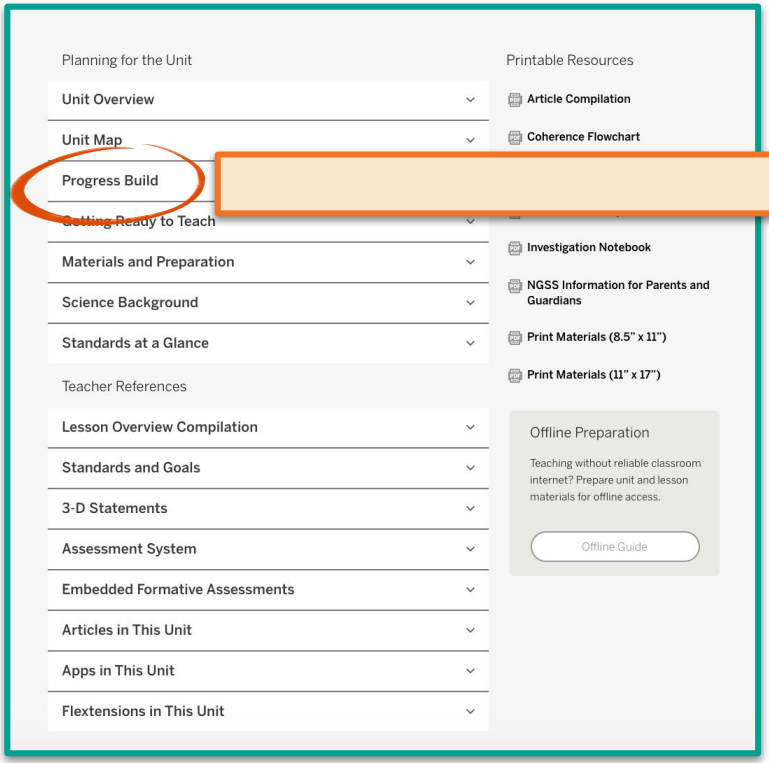
	Science concepts	Explanation of the phenomenon
	Students figure out...	*So they can explain...*
Chapter 1	The stars all all around Earth in every	The artifact depicts the sky in different
Chapter 4	Students learn that scientists face challenges, and that conducting an investigation is not always a linear process—investigations require revisions and perseverance, and seeing a pattern can be a first step toward finding an answer.	Students independently plan, conduct, and revise their own investigations of star patterns

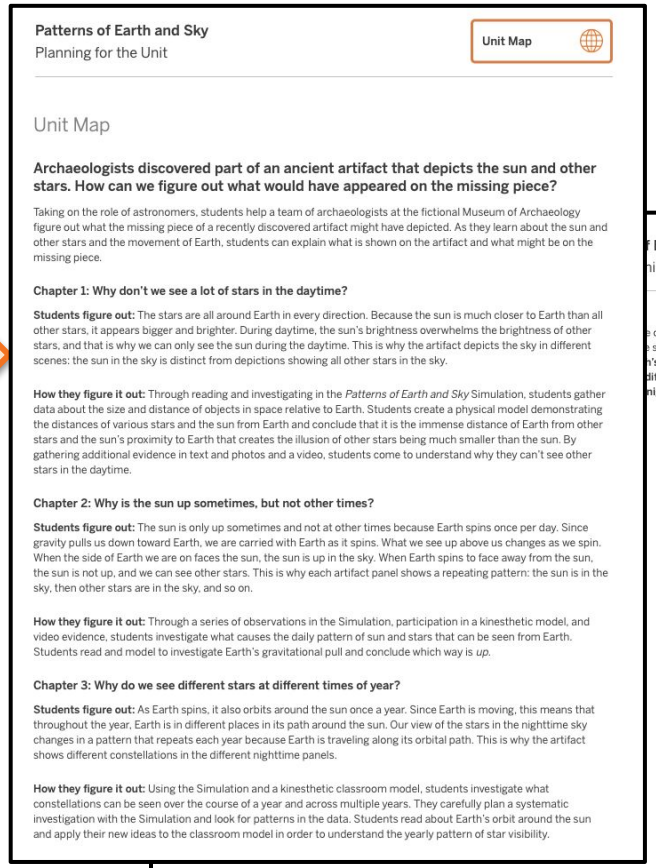
Chapter 4: How can we investigate why we see different stars on different nights?

Students figure out: We can investigate many different questions about the stars using systematic observations.

How they figure it out: Students are presented with a list of possible questions about patterns of when and where certain constellations can be seen. Students choose a question to investigate and apply what they have learned to carefully plan their own investigations in the Simulation. Through peer feedback and iteration, students refine their investigation plans. They then conduct their investigations in the Simulation and share results with peers.

Progress Build





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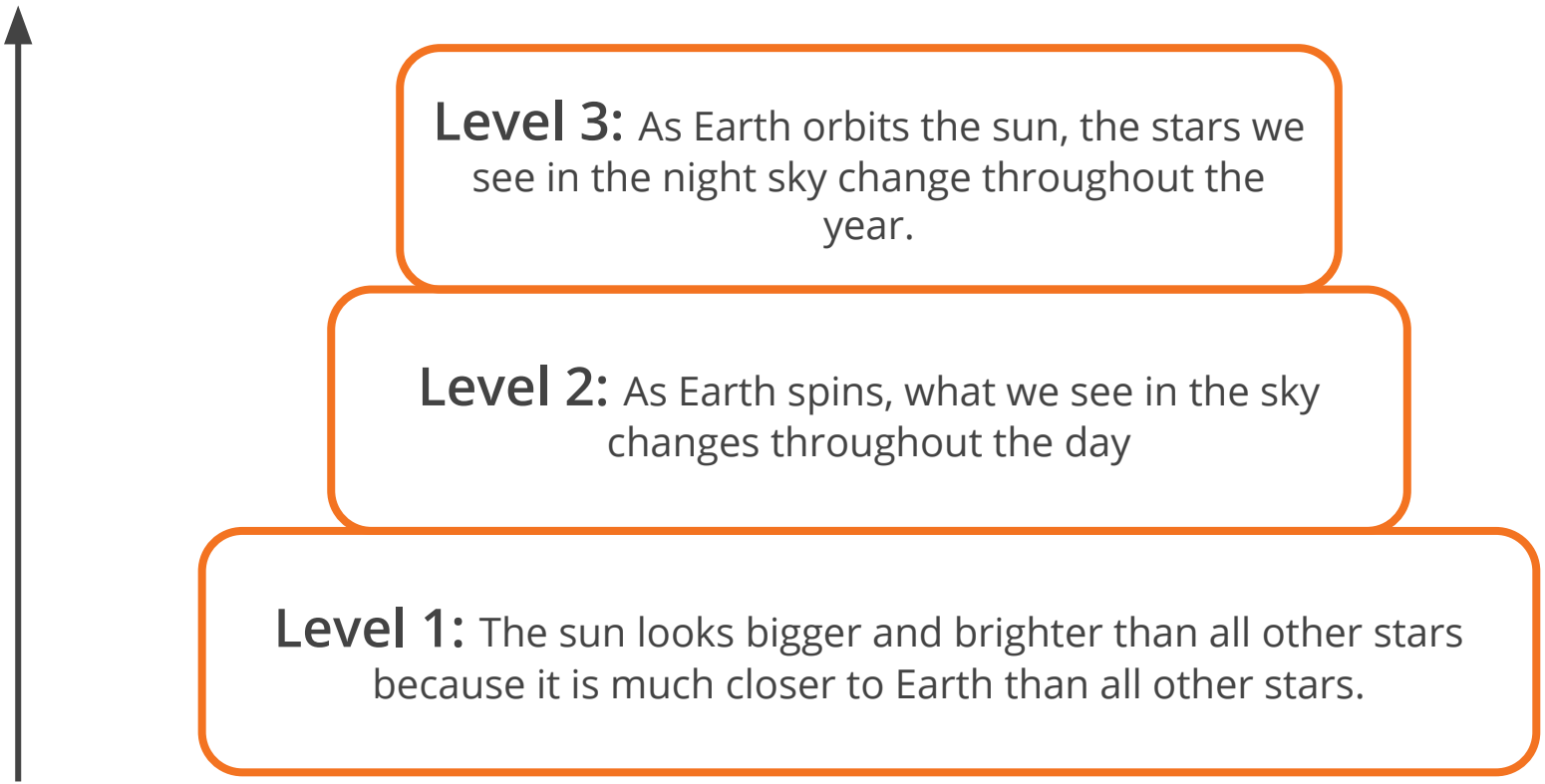
Pages 4-5

Amplify.

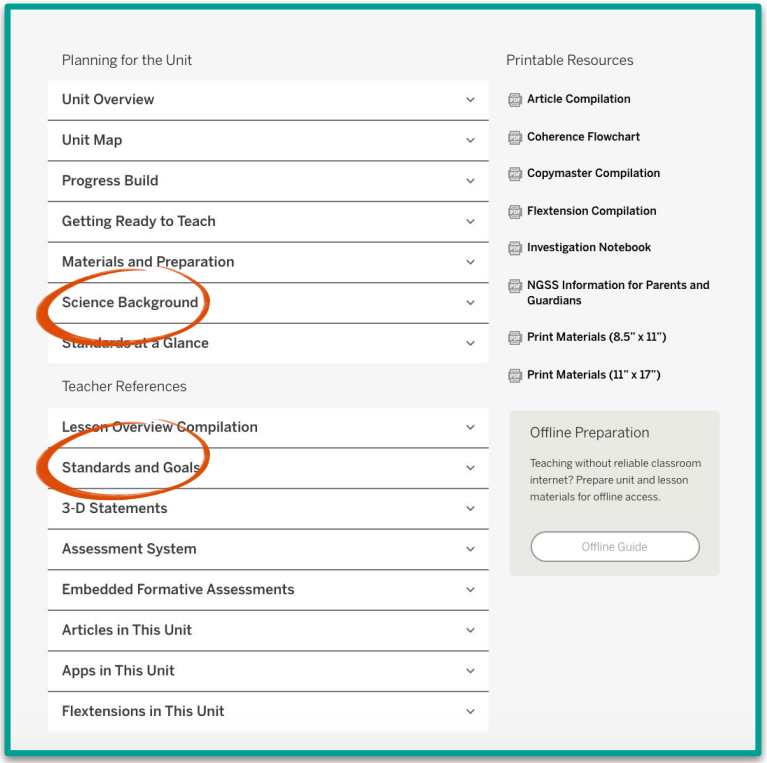
Progress Build



Additional science concept resources for teachers

Science Background:
Adult-level summary of unit science concepts

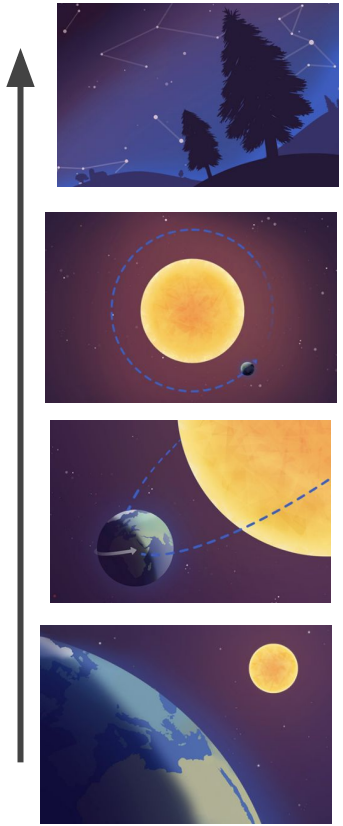
Standards and Goals:
Information about NGSS standards and how they're achieved in the unit



Key Takeaway

Conceptual build and explanatory build

Throughout the unit, students' conceptual understanding grows deeper, allowing their explanations of the phenomenon to become more complete and complex.



Level 3: As Earth orbits the sun, the stars we see in the night sky change throughout the year.

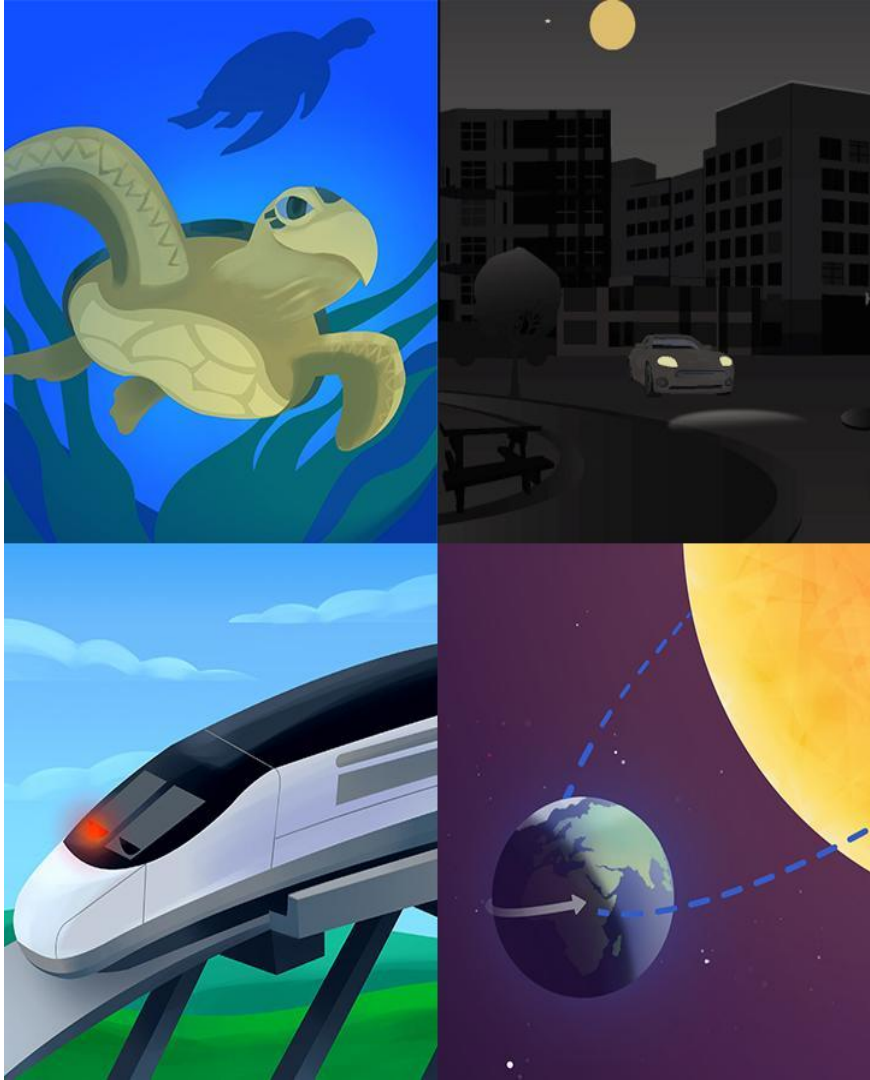
Level 2: As Earth spins, what we see in the sky changes throughout the day

Level 1: The sun looks bigger and brighter than all other stars because it is much closer to Earth than all other stars.

Reflection

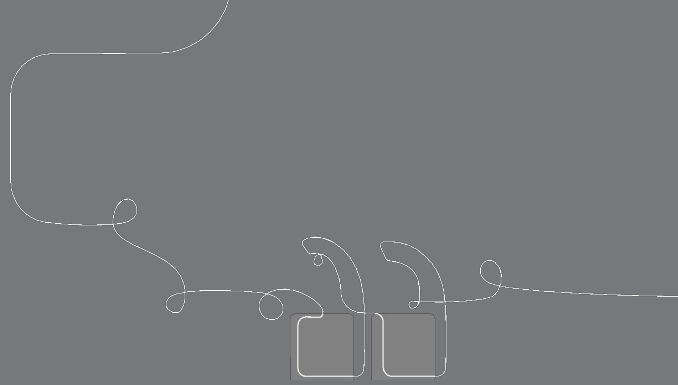
Jamboard

How will understanding the unit's **storyline** help you during **remote instruction**?

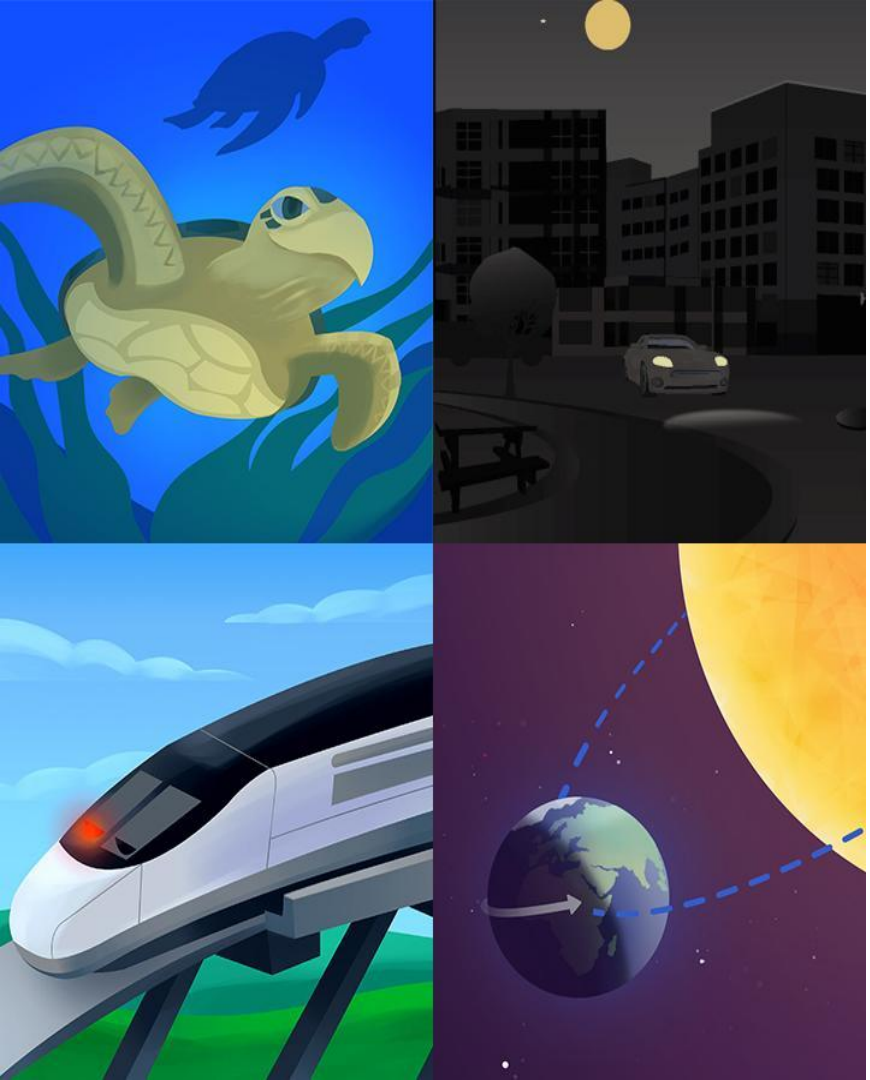


How will understanding the unit's storyline help you during hybrid instruction?

I'll ask my students what they're wondering at the end of each chapter.



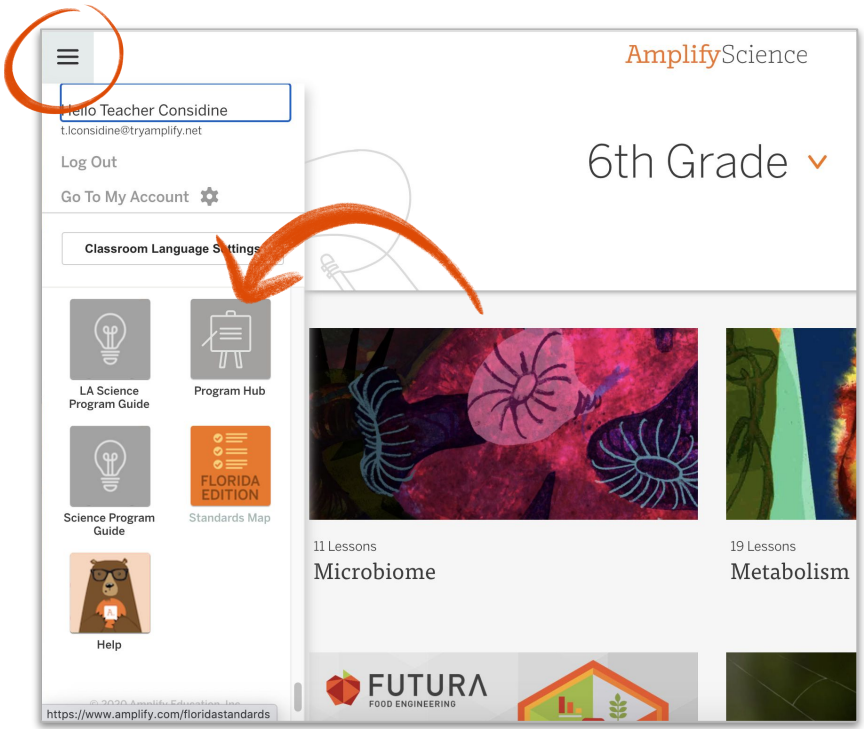
Questions?



Plan for the day

- **Framing the day**
  - Remote learning reflection
  - Revisiting the Amplify Approach
- **Phenomenon at the unit level**
  - Navigation refresher (standard curriculum)
  - Storyline and science concepts
- **Planning to teach**
  - Navigation refresher (@Home resources)
  - Lesson walkthrough
  - Collaborative planning time
- **Closing**
  - Reflection & survey

Accessing the Program Hub



Amplify Science@Home resources reference

Use this guide to keep track of the different resources available for remote and hybrid learning.

Instructional materials: Click Remote and hybrid learning resources, then select your grade level from the dropdown menu. Select your unit.	
@Home Unit resources: These will appear when you select your unit.	
Teacher Overview	General information for teaching with @Home Units, planning information, chapter and lesson outlines
Lesson Index	Lists the original Amplify Science lessons associated with each @Home lesson, and the Investigation Notebook pages, copymasters, and print materials associated with the @Home Unit Student Sheets
Family Overview	Information to send home to families to help them support students with remote learning
Student lesson materials for @Home Units	Printable or digital lessons condensed to be about 30 minutes long. You can access compilations of all student materials for your unit, or select from individual lessons.
@Home Video resources: After selecting your grade level and unit, select the @Home Videos tab below your unit title.	
@Home Video links	Links to video lessons that include all activities from the original units. Lesson playlists are on YouTube, and they autoplay in a playlist form.
Additional remote and hybrid instructional materials: These can be accessed from the tabs below your unit title.	
Hands-on investigations support	Videos of every unit's hands-on activities (note, these videos also appear in the student lesson materials).
Read-aloud videos	Link to a YouTube playlist of read-aloud videos of all books in your unit.
Orientation and Tutorials: Click Remote and hybrid learning resources, then select your grade from the dropdown menu. Click Orientation and Tutorials. You'll not only find videos to help you use the resources, but also videos you can share with students and caregivers.	

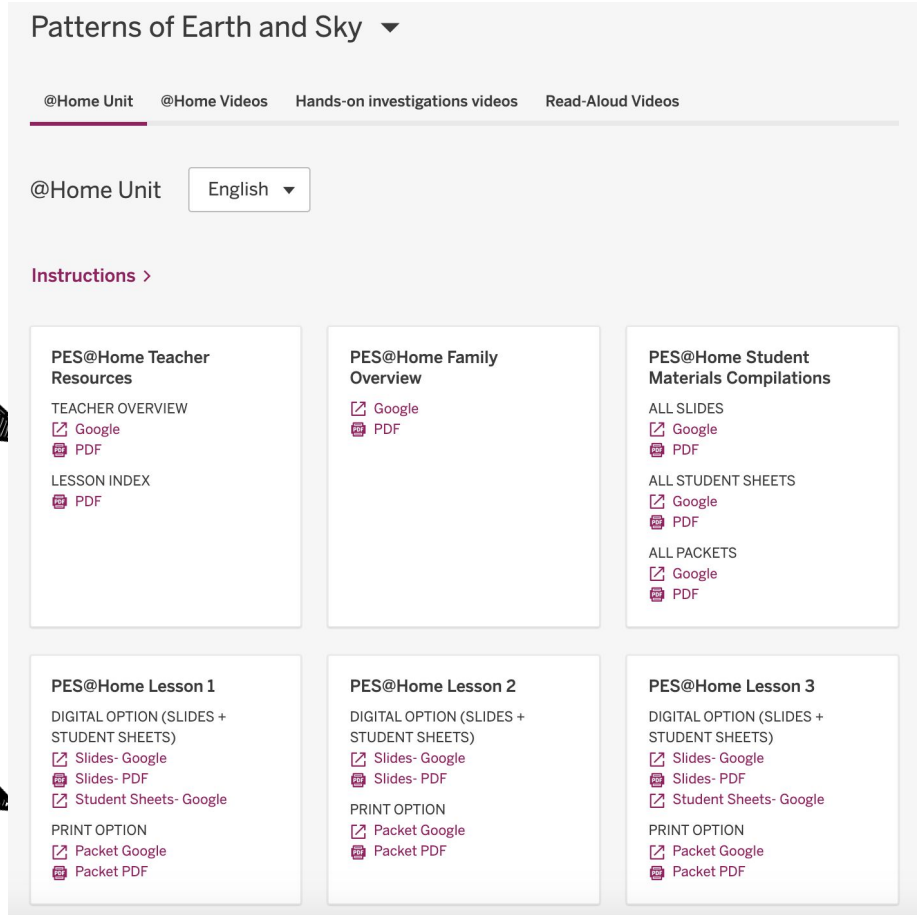
Program Hub work time

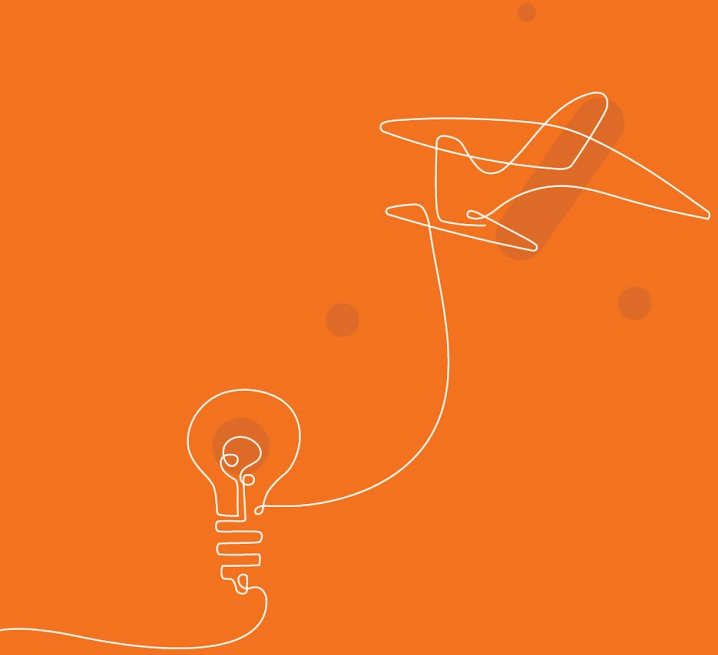
5 minutes

Navigate to the Program Hub. Open:

- Teacher Overview
- Lesson Index
- @Home Lesson 1
  - Slides- Google
  - Student Sheets- Google

If you have extra time, explore the other tabs.





Lesson Walkthrough

Adapted from: Amplify Science *Patterns of Earth and Sky* Lesson 1.1

Key Activities

- **Introducing the Artifact:** Students are introduced to the unit problem and their role as astronomers.

- **Write:** Students complete a pre-unit writing activity to provide insight to their ideas about why we see different stars at different times.

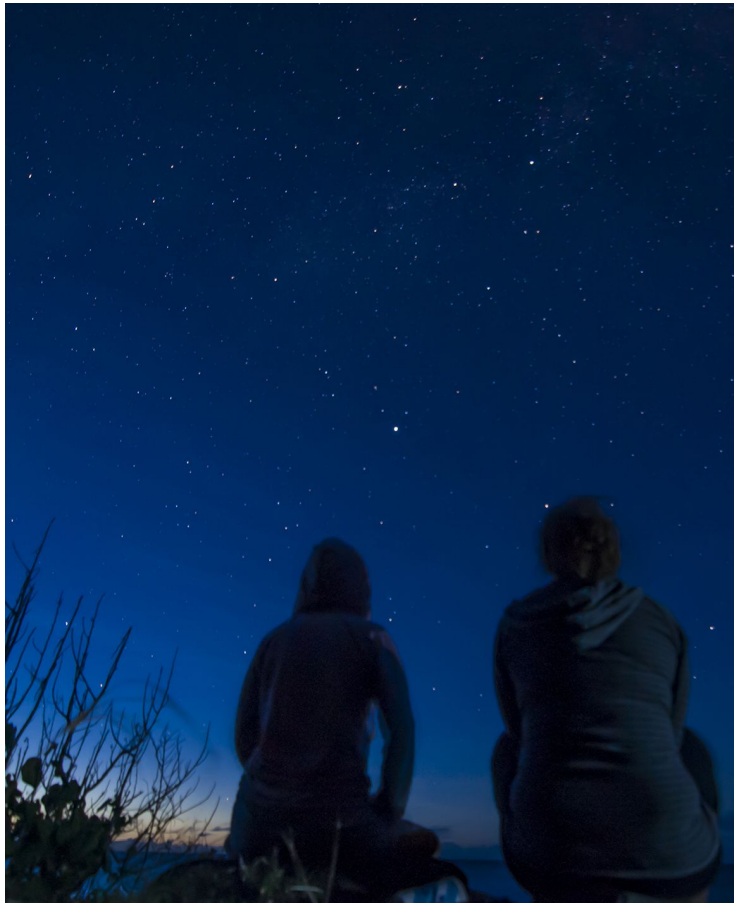
Ideas for synchronous or in-person instruction

While meeting, introduce the unit problem by showing and discussing the images of artifacts. Then have students complete the pre-unit assessment after meeting.

@Home Lesson 1

Patterns of Earth and Sky

AmplifyScience



In this unit, we're going to take a closer look at the stars and use what we observe to help a museum solve a mystery.

The museum is a museum of archaeology.

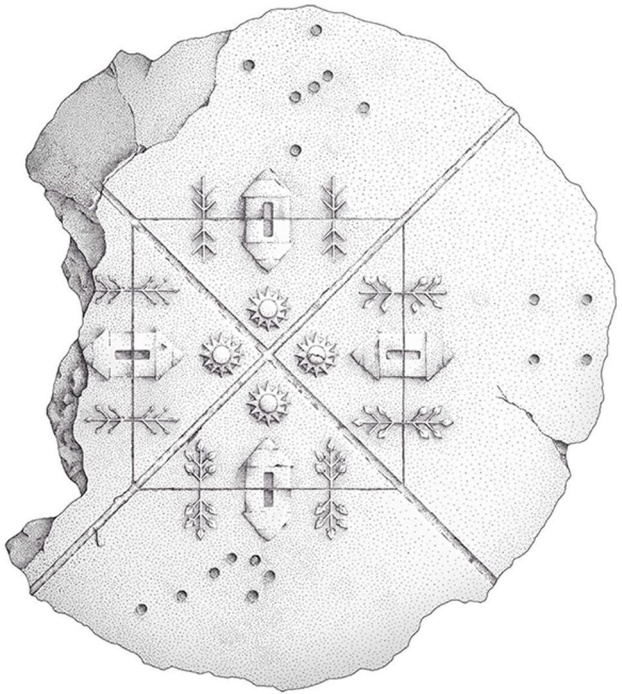
These scientists are **archaeologists**. They study people who lived a long time ago by looking at things they made or built.

This Sky Disc was found near Nebra, Germany. It is about 3,600 years old.

This rock painting was found in the Chaco Culture National Historical Park in New Mexico. It is about 1,000 years old. It was painted on a cliff overhang near a city built by the Pueblo people.

We call the things that archaeologists study artifacts.

What do you notice or observe about these **artifacts**?



Archaeologists at the museum uncovered this artifact.

What do you notice or observe about it?

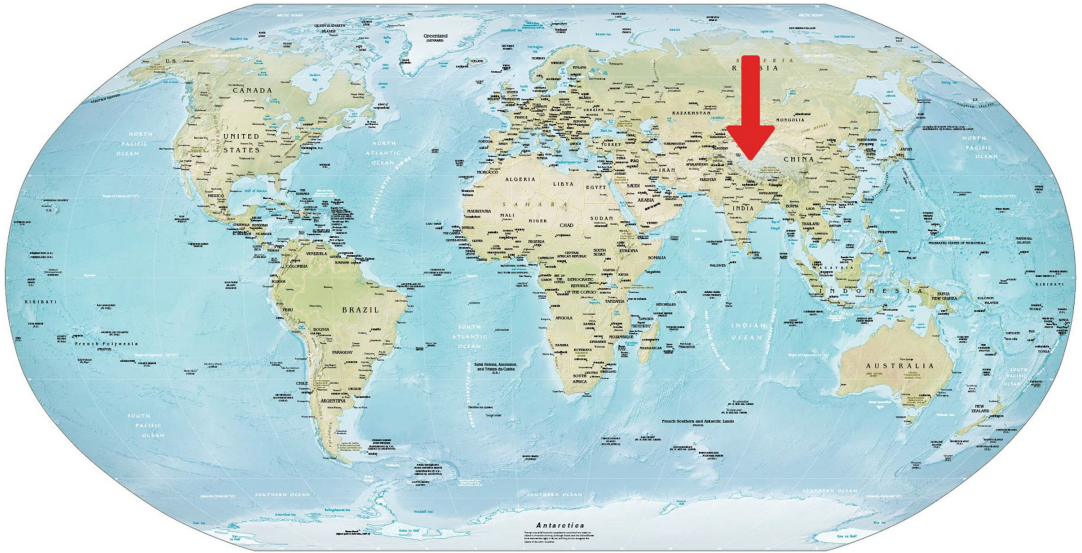
To: Student Astronomers
From: Dr. Sabri, Museum of Archaeology
Subject: Mysterious Artifact

Our museum's field research team located an artifact, and we think it might be more than 1,000 years old. We believe it shows something about the sun and the stars, although one section is missing. Would you be able to help us figure out what the missing section looked like?

We want to put the artifact on display at the museum, and it would be nice to show people how it might have looked before it was broken.

A map is attached to show you where the artifact was found, in case that is helpful.

The art



halfwa

out

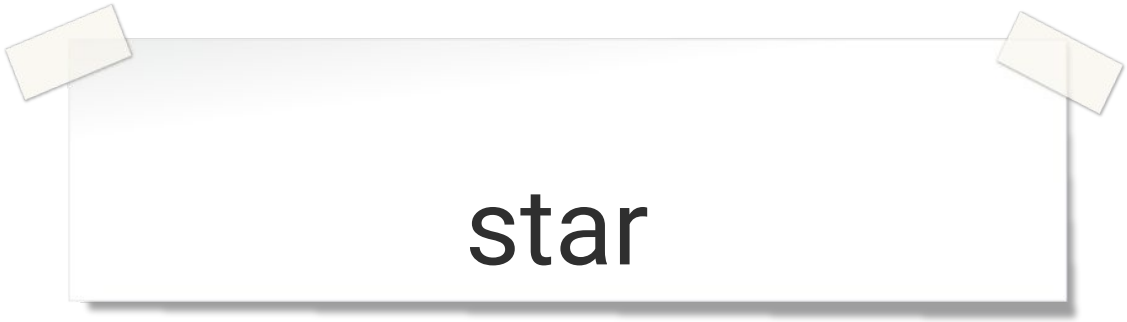
You will take on the role of an **astronomer** to help the museum understand their artifact by investigating **stars** and other things we see in the sky as we're standing on Earth.

We will be learning new **science words** to help with our investigation in this unit.

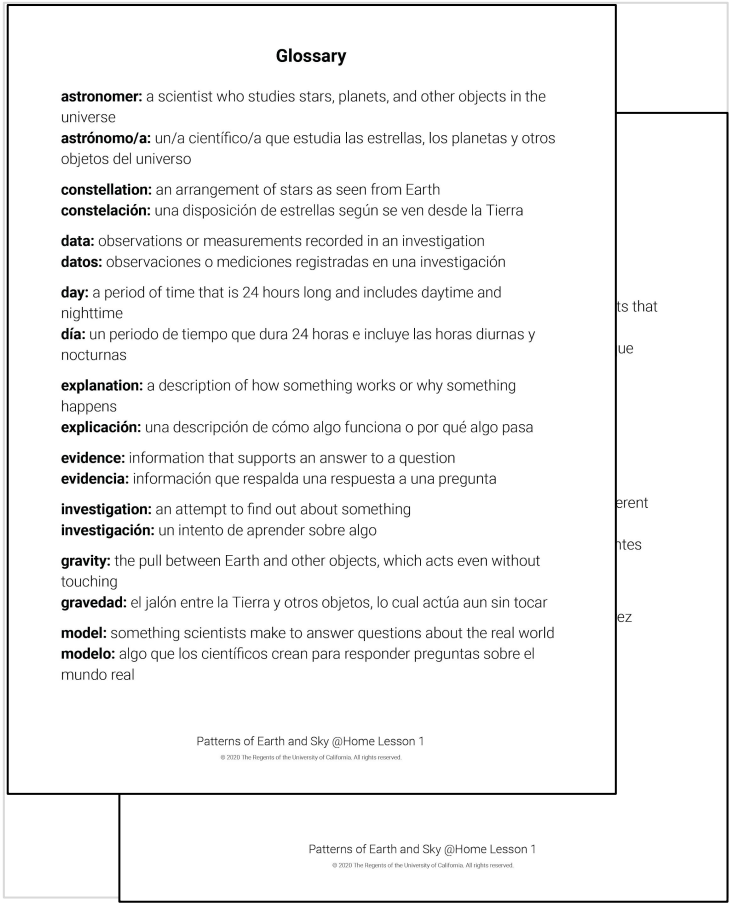
Now we will think more about two of the new words we are learning.

astronomer

a scientist who studies stars, planets, and other objects in the universe



a huge object in space that gives off heat and light



Glossary

astronomer: a scientist who studies stars, planets, and other objects in the universe
astrónomo/a: un/a científico/a que estudia las estrellas, los planetas y otros objetos del universo

constellation: an arrangement of stars as seen from Earth
constelación: una disposición de estrellas según se ven desde la Tierra

data: observations or measurements recorded in an investigation
datos: observaciones o mediciones registradas en una investigación

day: a period of time that is 24 hours long and includes daytime and nighttime
día: un periodo de tiempo que dura 24 horas e incluye las horas diurnas y nocturnas

explanation: a description of how something works or why something happens
explicación: una descripción de cómo algo funciona o por qué algo pasa

evidence: information that supports an answer to a question
evidencia: información que respalda una respuesta a una pregunta

investigation: an attempt to find out about something
investigación: un intento de aprender sobre algo

gravity: the pull between Earth and other objects, which acts even without touching
gravedad: el jalón entre la Tierra y otros objetos, lo cual actúa aun sin tocar

model: something scientists make to answer questions about the real world
modelo: algo que los científicos crean para responder preguntas sobre el mundo real

Patterns of Earth and Sky @Home Lesson 1

Patterns of Earth and Sky @Home Lesson 1

You have a **Glossary** you can use if you need to find definitions for science words we are using throughout the unit.

As astronomers who are studying and thinking about stars, we are going to be learning ideas that will help us answer this question:

Unit Question

Why do we see different stars at different times?

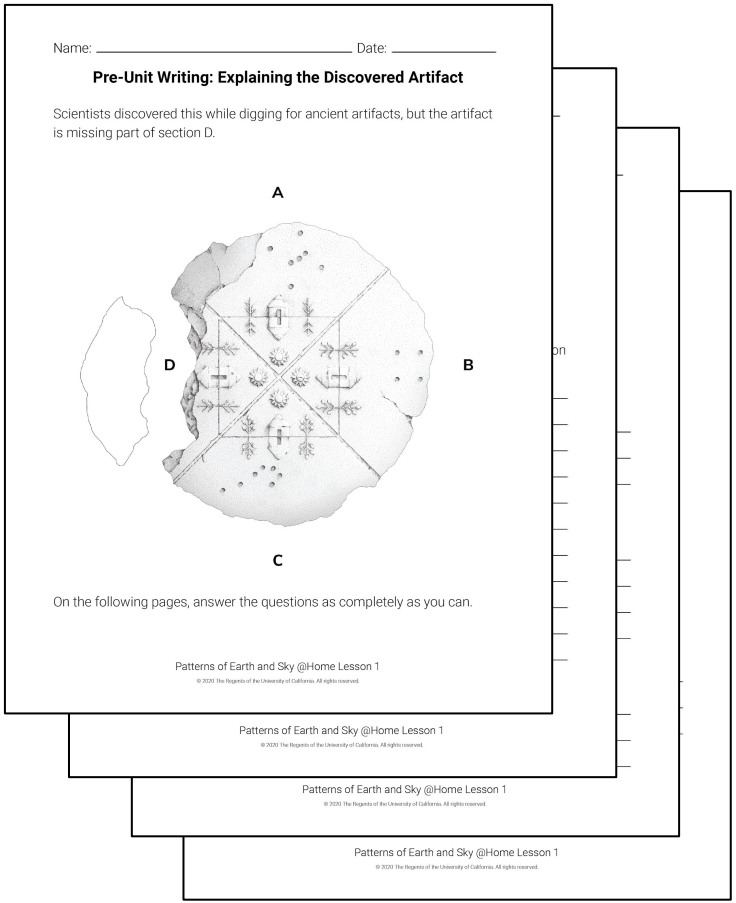
Key Activities

- **Introducing the Artifact:** Students are introduced to the unit problem and their role as astronomers.

- **Write:** Students complete a pre-unit writing activity to provide insight to their ideas about why we see different stars at different times.

Ideas for synchronous or in-person instruction

While meeting, introduce the unit problem by showing and discussing the images of artifacts. Then have students complete the pre-unit assessment after meeting.


Name: _____ Date: _____

Pre-Unit Writing: Explaining the Discovered Artifact

Scientists discovered this while digging for ancient artifacts, but the artifact is missing part of section D.

A

D

B

C

On the following pages, answer the questions as completely as you can.

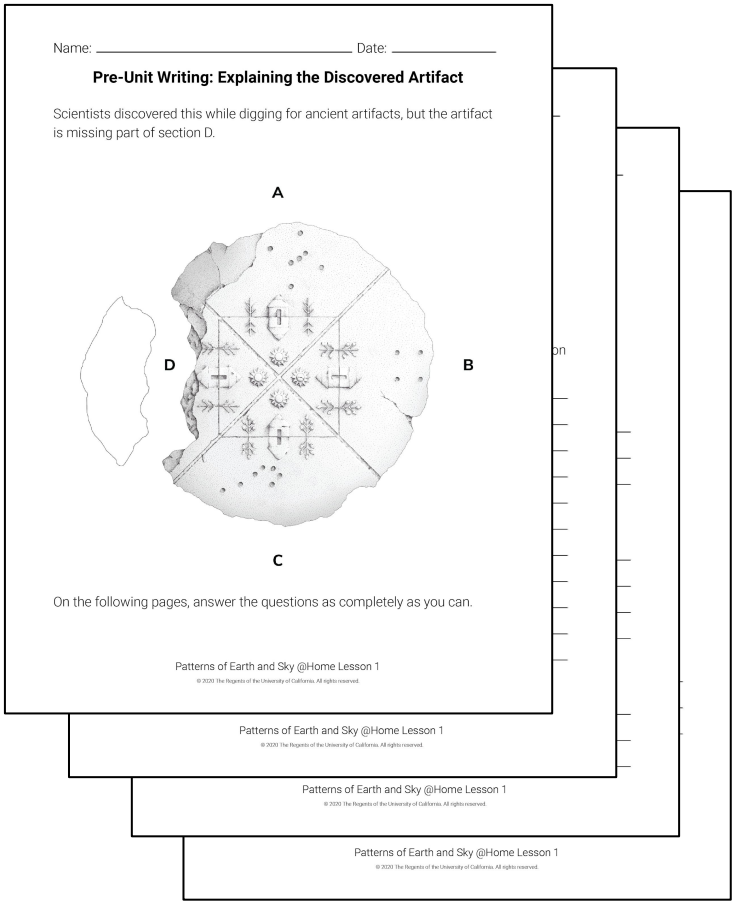
Patterns of Earth and Sky @Home Lesson 1

Patterns of Earth and Sky @Home Lesson 1

Patterns of Earth and Sky @Home Lesson 1

Patterns of Earth and Sky @Home Lesson 1

You are going to write your **first ideas** about why each section of the artifact might look the way it does.



Find and complete the **Pre-Unit Writing: Explaining the Discovered Artifact** pages. Make sure to answer the questions in all **three parts**.

End of @Home Lesson

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

Amplify.

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Key Activities

- **Introducing the Artifact:** Students are introduced to the unit problem and their role as astronomers.

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Ideas for synchronous or in-person instruction

While meeting, introduce the unit problem by showing and discussing the images of artifacts. Then have students complete the pre-unit assessment after meeting.

Suggestions for Online Synchronous Time

Online synchronous time

Online discussions: It's worthwhile to establish norms and routines for online discussions in science to ensure equity of voice, turn-taking, etc.

Digital tool demonstrations: You can share your screen and demonstrate, or invite your students to share their screen and think-aloud as they use a Simulation or other digital tool.

Interactive read-alouds: Screen share a digital book or article, and pause to ask questions and invite discussion as you would in the classroom.

Shared Writing: This is a great opportunity for a collaborative document that all your students can contribute to.

Co-constructed class charts: You can create digital charts, or create physical charts in your home with student input.

page 8

Questioning Strategies

Pages 9-10

- Questions to assess students' knowledge and skills
- Questions to promote student-to-student discourse
- Questions to guide student learning

Questioning Strategies for Grades 2–5

Overview of the Role of Open-Ended Questioning

Repeated opportunities for students to listen to and speak with others are essential for promoting deep thinking and learning in science. Meaningful teacher-initiated questions create a rich context for promoting open-ended student dialogue and discussion. The *Science Framework for California Public Schools* explains that "Simply providing opportunities to talk is not enough. Effective questioning can scaffold student thinking" (*California Science Framework*, 2016, Chapter 11, p. 21). The Framework suggests that "Teacher-initiated questions are key to helping students expand their communication, reasoning, arguments, and representation of ideas in science" (*California Science Framework*, 2016, Chapter 11, p. 21). The types of questions that teachers pose are instrumental in supporting student understanding. The Framework calls for more open-ended teacher questioning that "prompts and facilitates students' discourse and thinking" and less teacher questioning that prompts "students to seek a confirmatory right answer" (*California Science Framework*, 2016, Chapter 11, p. 6).

The Amplify Science Teacher's Guide is infused with opportunities for students to discuss their developing ideas in response to open-ended prompts. Questions to promote student thinking and discussion are purposefully built into the Teacher's Guide instructional steps and Teacher Support notes that surround all our hands-on and reading activities. In addition, all units include discourse routines (e.g., Shared Listening, Think-Draw-Pair-Share, Write and Share, Word Relationships) that provide opportunities for students to use focal unit vocabulary as they think and talk with partners and the class about their understanding of key science content and practices. Many of the On-the-Fly Assessment suggestions provided throughout each unit offer open-ended follow-up questions that can be used to probe student thinking and formatively assess student understanding of the content. In addition, each unit includes multiple opportunities for students to respond to open-ended questions through additional modalities (e.g., in writing, with diagrams, through a kinesthetic model).

While the prompts embedded in each of the opportunities mentioned above provide fertile ground for student discussion, continued use of flexible, open-ended questions is invaluable for assessing students' knowledge and skills, promoting student-to-student discourse, and guiding student learning. A collection of grade-appropriate questions follows that can be used for these purposes. You will also find a list of activity types included within the Amplify Science curriculum that are particularly conducive to the use of these questions. You may choose to print out these questions and activity types for reference throughout your instruction.

- Discussion of photographs and videos
- Discourse routines (e.g., Thought Swap, Think-Draw-Pair-Share)
- Science Practice Tool activities (modeling, sorting, graphing, diagramming, data)
- Simulation activities (grades 4–5)
- Evidence Card sorts
- Evidence Circles
- Roundtable Discussions

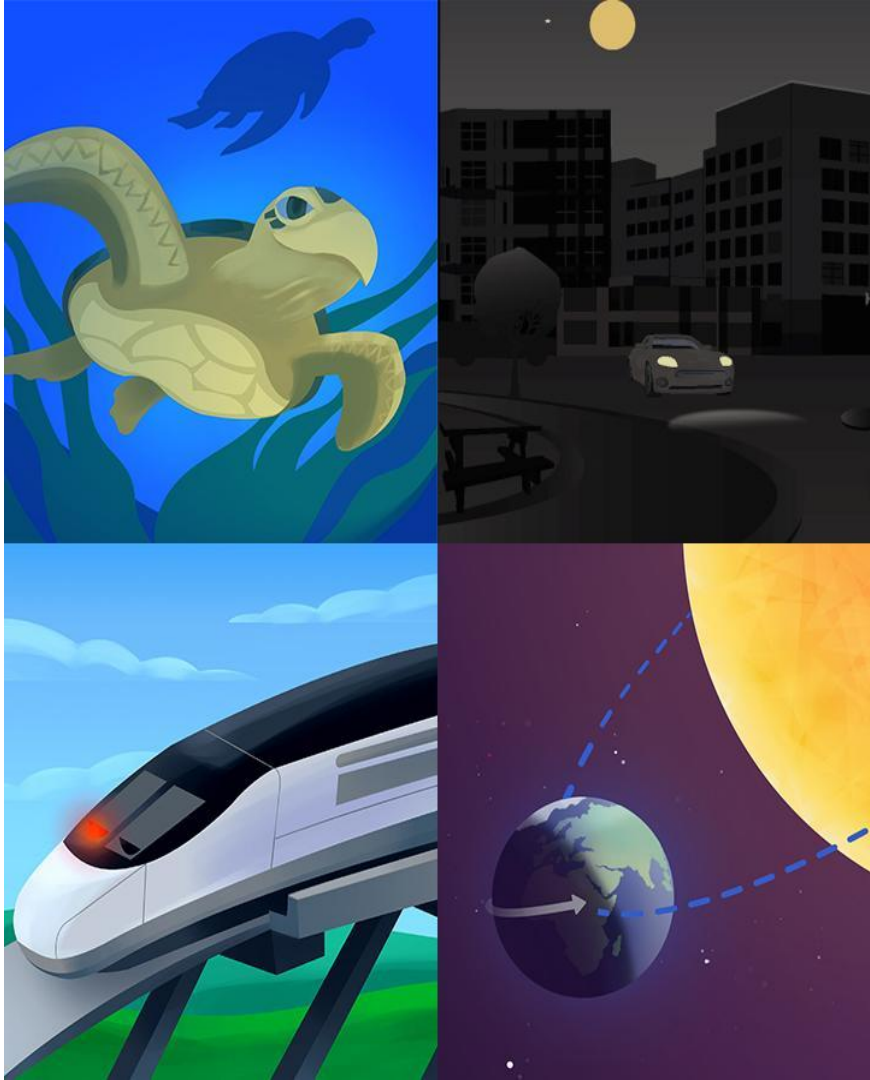
Hands-on Suggestions

Grade 5			Unit: Patterns of Earth and Sky		Hands-On Investigation Video Playlist			
Lesson	**Activity**	**@Home Lesson**	**Activity Description**	**Suggested Modality**	**Reasoning**	**Teacher/Student Provided Materials**	**Consumable Materials**	**Non-Consumable Materials**
1.5	3	4	The class creates another scaled physical model to investigate how distance affects the apparent size and visibility of stars from Earth.	watch video	Group activity. Difficult to do in a remote setting.			
2.3	1	7	Students return to the Mount Nose Model and connect it to the previous lesson's Sim activity.	watch video	Group activity. Difficult to do in a remote setting.	word relationship cards		
2.5	2	8	As Earth spins, students visualize what people see in the sky from different locations on Earth.	hands-on		inflatable globe	4 different colored adhesive dots	inflatable globe
3.2	1	11	Students refer to the reference book as they create constellation posters for use in the classroom model	hands-on		markers or colored pencils or crayons	11 x17 paper	
3.2	3	11	The class makes a kinesthetic model of Earth, the sun, and other stars so they may experience and understand Earth's orbit.	watch video	Group activity. Difficult to do in a remote setting.			

Reflection

Jamboard

How would you teach this lesson?
How might you include suggestions for online synchronous time and/or questioning strategies?



I would prioritize the group discussion during synchronous or in-person learning time.

Planning for @Home Lesson 1

How would you teach this lesson?
How might you include suggestions for online synchronous time and/or questioning strategies?

Multi-day planning, including planning for differentiation and evidence of student work

Day @Home Lesson 1

Minutes for science: 30 min.

Instructional format:
- ☐ Asynchronous
- ☒ Synchronous

Lesson or part of lesson:
(slides 1-15) Talk & Introducing the Unit

Mode of instruction:
- ☐ Preview
- ☐ Review
- ☐ Teach full lesson live
- ☒ Teach using synchronous suggestions
- ☐ Students work independently using:
  - ☐ Printed @Home Slides
  - ☒ Digital @Home Slides
  - ☐ @Home Videos

Students will...	Teacher will...
Discuss their initial ideas as the teacher walks them through slides 1-12 Understand the unit question and their role as astronomers. Listen to the directions for the pre-unit assessments.	Walk students through slides 1-12 giving students opportunities to share their ideas. Introduce the unit question and the words: astronomer, star,. Then set students up to complete the pre-unit assessment during asynchronous time.

Minutes for science: _____

Instructional format:
- ☒ Asynchronous
- ☐ Synchronous

Lesson or part of lesson:

Mode of instruction:
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Minutes for science: 30 min

Instructional format:
- ☒ Asynchronous
- ☐ Synchronous

Lesson or part of lesson:
(slides 13-15) Pre-Unit Assessment

Mode of instruction:
- ☐ Preview
- ☐ Review
- ☐ Teach full lesson live
- ☐ Teach using synchronous suggestions
- ☐ Students work independently using:
  - ☐ Printed @Home Slides
  - ☒ Digital @Home Slides
  - ☐ @Home Videos

Students will...	Teacher will...
Complete the Pre-Unit Assessment.	Assign the Pre-Unit Assessment.

Look at the *Students will* columns. What are students working in the lesson(s) that you could collect, review, or provide feedback on?
See Some Types of Written Work in Amplify Science to the right for guidance.

If there isn't a work product listed above, do you want to add one? Make notes below.

Synchronous: students jot down their initial ideas before sharing out

Asynchronous: students complete the written pre-unit assessment

How will students submit this work product to you?
See the Completing and Submitting Written Work tables to the right for guidance on how students can complete and submit work.

Synchronous: students can jot ideas on a Jamboard, Google Doc or scrap paper

Asynchronous: Students will use the student sheets to complete their assessment. I can use Cami to make the sheets fillable and assign through Schoology so that students can complete digitally and submit back to me.

Some Types of Written Work in Amplify Science

- Daily written reflections
- Homework tasks
- Investigation notebook pages
- Written explanations (typically at the end of Chapter)
- Diagrams
- Recording pages for Sim uses, investigations, etc

Completing Written Work	Submitting Written Work
• Plain paper and pencil (videos include prompts for setup) • (6-8) Student platform • Investigation Notebook • Record video or audio file describing work/answering prompt • Teacher-created digital format (Google Classroom, etc)	• Take a picture with a smartphone and email or text to teacher • Through teacher-created digital format • During in-school time (hybrid model) or lunch/materials pick-up times • (6-8) Hand-in button on student platform

How will you differentiate this lesson for diverse learners? (Navigate to the lesson level on the standard Amplify Science platform and click on differentiation in the left menu.)

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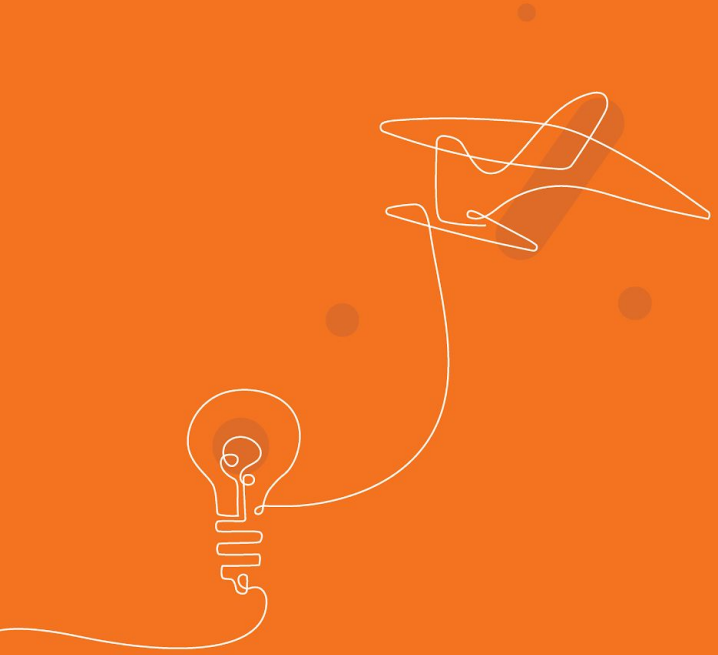
How will you differentiate this lesson for diverse learners? (Navigate to the lesson level on the standard Amplify Science platform and click on differentiation in the left menu.)

Supports:

- Encourage students to engage in student-to-student discussion
- Provide students with the Multi-Language Glossary, where appropriate, add images
- Leverage primary language for discussions
- Strategic grouping
- You may want to extend the lesson and provide more whole class time to talk about the different constellations.



Collaborative Planning

Breakout groups

pages 14-17

Discussion prompts

Planning:

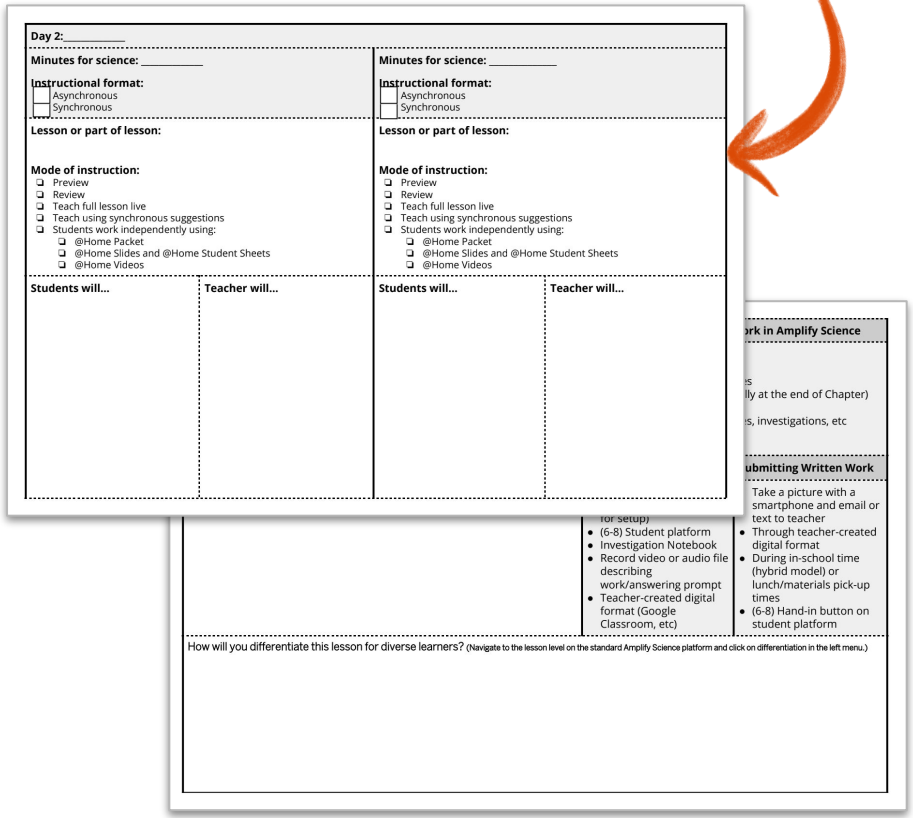
- Dig into the @Home Resources for lesson 2. Discuss what you will prioritize for synchronous vs. asynchronous time

Student work:

- Discuss how you can collect evidence of student work

Differentiation:

- Consider how you might differentiate the lesson for diverse learners



Breakout groups

pages 14-17

Please choose a person from your group to share out!

Planning:

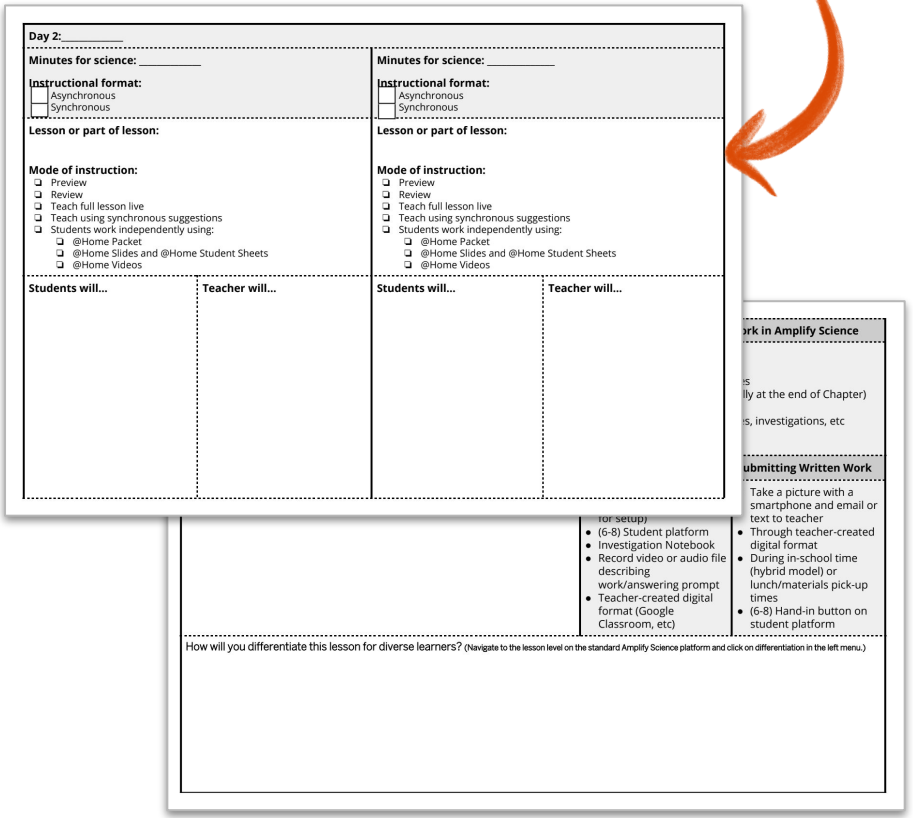
- What did you will prioritize for synchronous vs. asynchronous time?

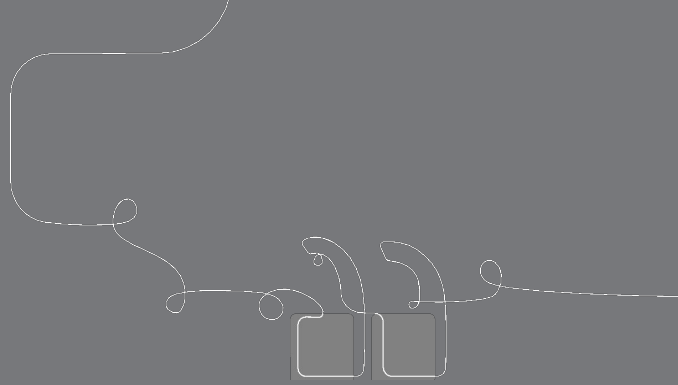
Student work:

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

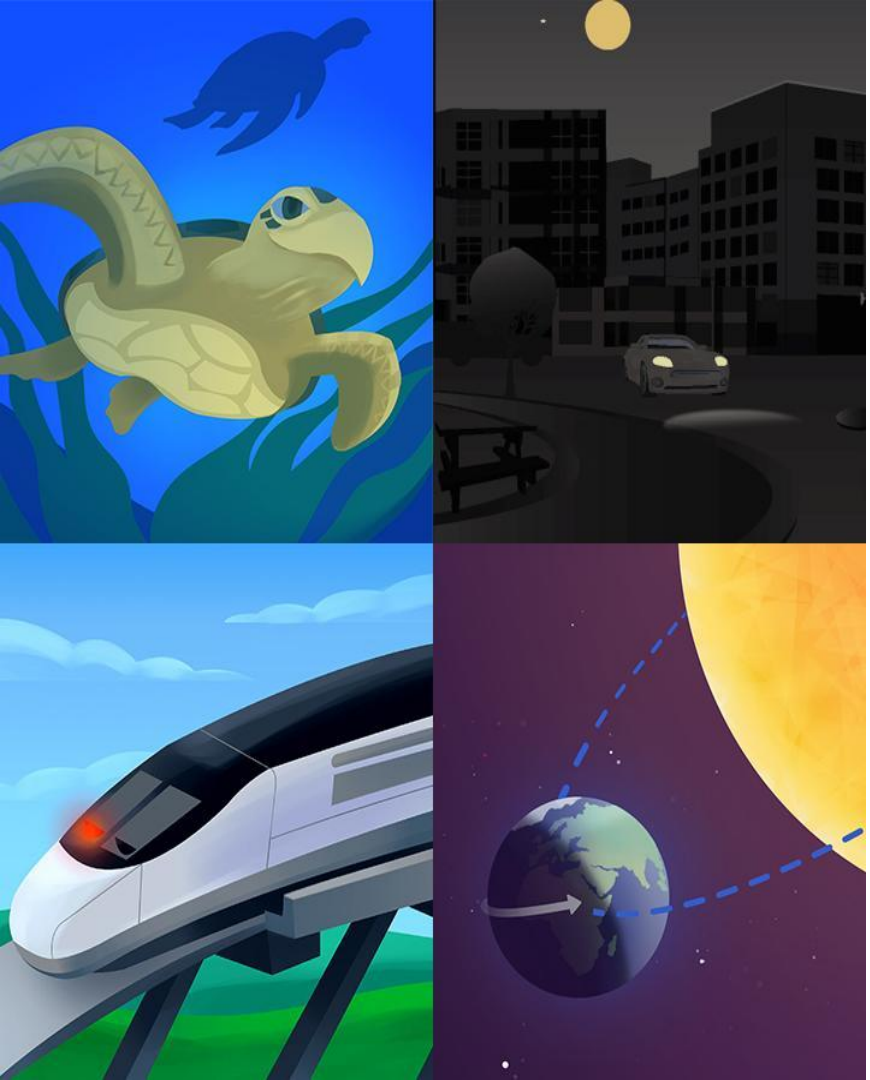
Differentiation:

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





Questions?



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- **Planning to teach**
  - Navigation refresher (@Home resources)
  - Lesson walkthrough
  - Collaborative planning time
- **Closing**
  - Reflection & survey

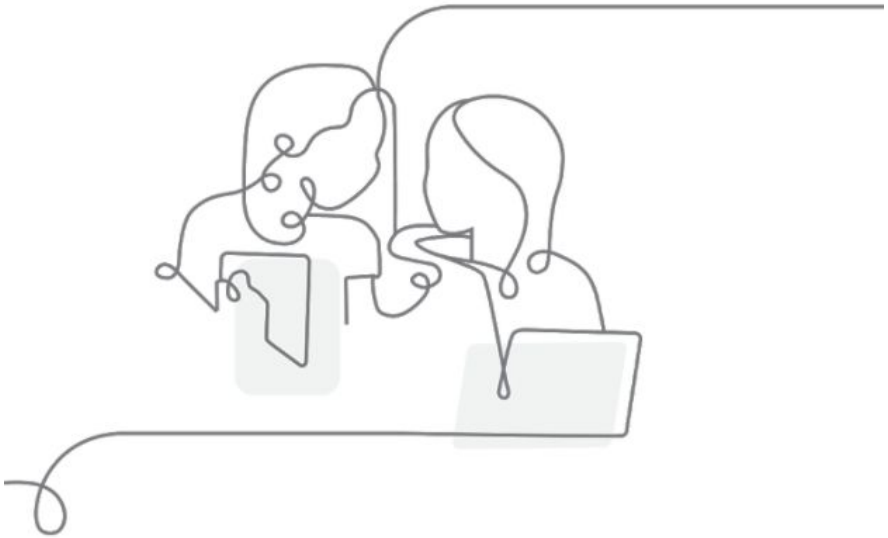
Head or hands reflection

Reflect independently, then volunteer to share

Based on our work today....

Head: What will you keep in mind while you plan?

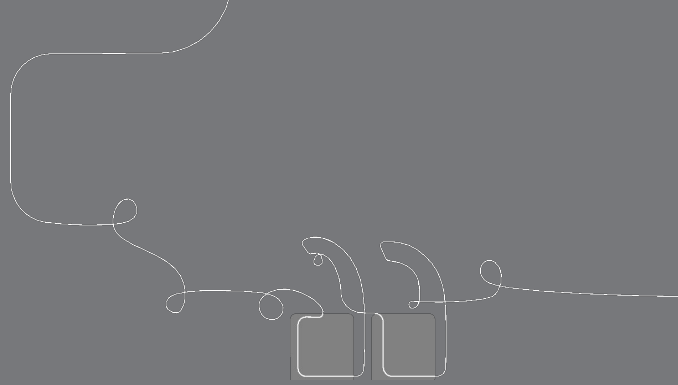
Hands: What will you do when you're teaching?



During this workshop did we meet our objectives?

Do you feel able to…

- Describe how students' conceptual understanding builds through the unit?
- Explain how students figure out the phenomenon throughout the unit?
- Make a plan for implementing Amplify Science within your class schedule and instructional format?

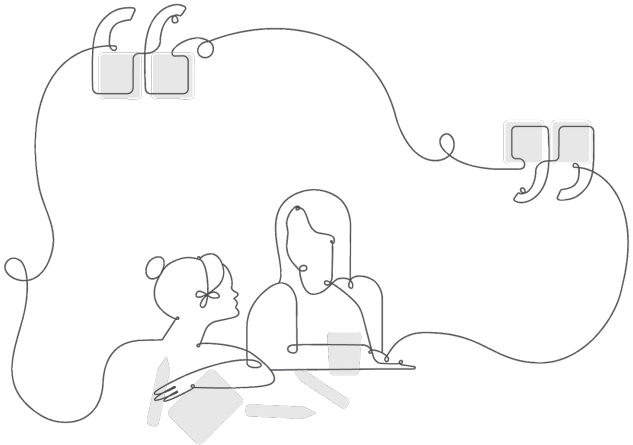


Final questions?

Upcoming LAUSD Office Hours

Twice Monthly on Thursdays, 4:30-5:30pm:

- April 8
- April 22
- May 13
- May 27

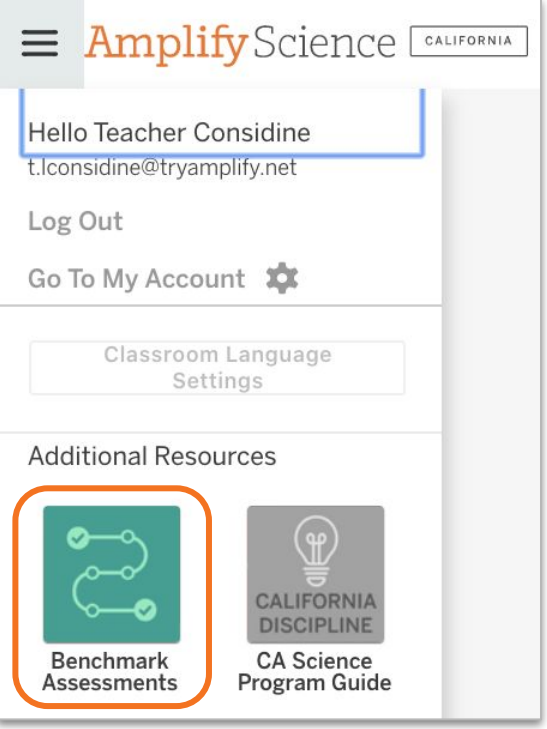


http://bit.ly/TK-6OfficeHours

We would love your input on PD for Back to School, 2021-22

2021-22 Amplify Science BACK TO SCHOOL PD Survey [LAUSD]

The questions below will help us plan for back to school PD sessions over the summer and in the fall.



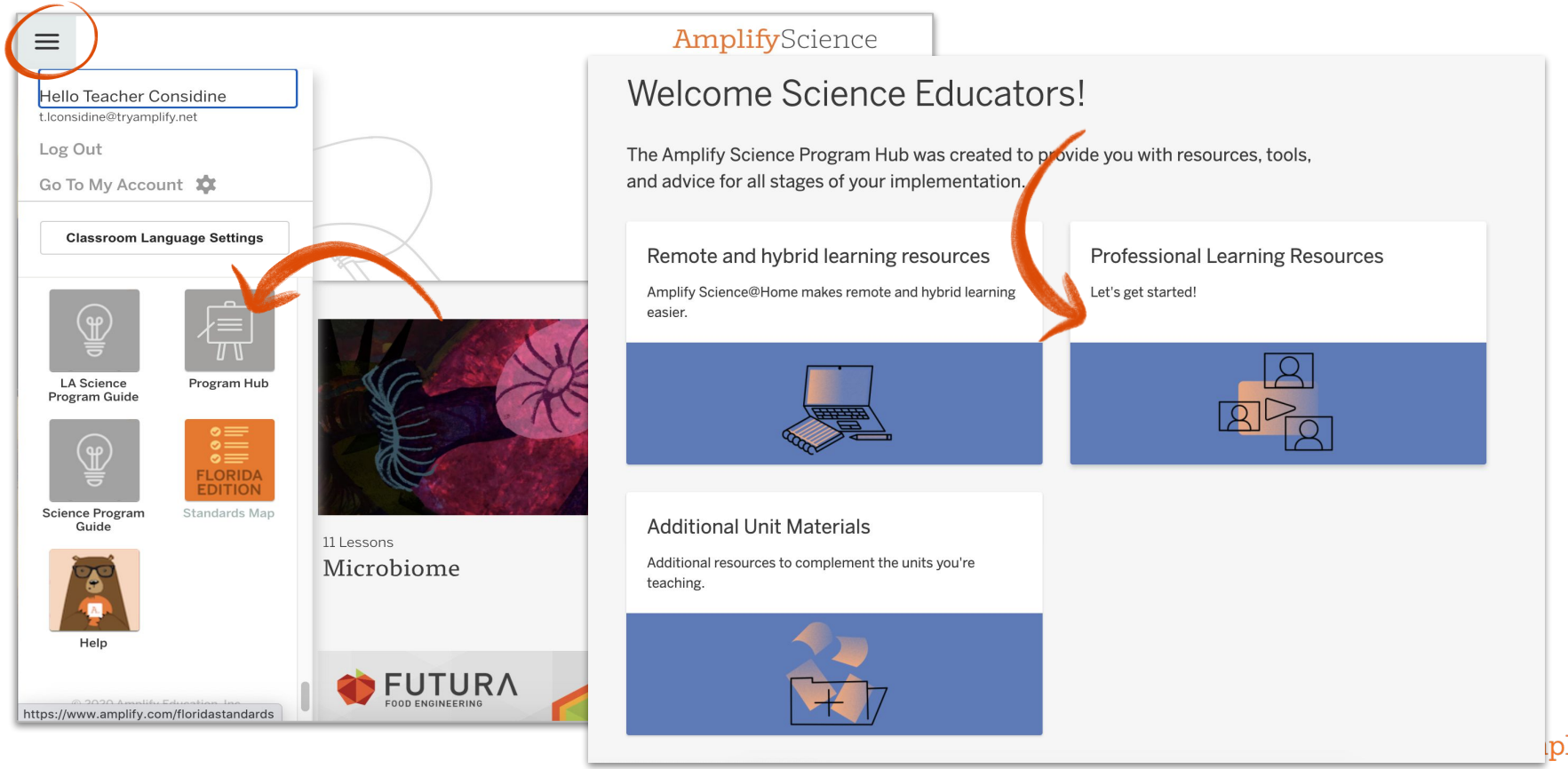
Benchmark Assessments

In conjunction with Amplify Science, teachers can administer benchmark assessments to evaluate students' progress toward meeting Next Generation Science Standards several times each school year.

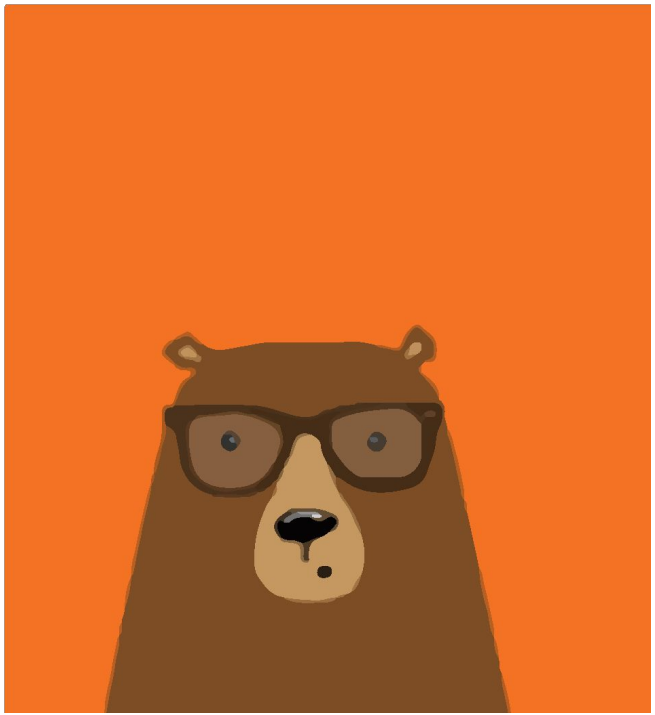
Designed to test all standards across grades 3-8. The assessment forms are paced to align with the Amplify Science curriculum sequence.

Benchmark Assessment Summary		
Grades 3-5	4 benchmarks per grade	14-15 items per form

Program Hub: Self Study Resources



Additional Amplify resources



Program Guide

Glean additional insight into the program's structure, intent, philosophies, supports, and flexibility.

https://cascience.wpengine.com/content/welcome-k-8/integrated-model/

Amplify Help

Find lots of advice and answers from the Amplify team.

my.amplify.com/help

Additional Amplify Support

Customer Care

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

scihelp@amplify.com

800-823-1969

Amplify Chat

When contacting the customer care team:

- Identify yourself as an Amplify Science user.
- Note the unit you are teaching.
- Note the type of device you are using (Chromebook, iPad, Windows, laptop).
- Note the web browser you are using (Chrome or Safari).
- Include a screenshot of the problem, if possible.
- Copy your district or site IT contact on emails.

Creating Assignments in Schoology

- Click Add Materials.
- Select Add Assignment.
- Fill out the Create Assignment form.
- Options. Use Options to turn on/off the following features: Use Individually Assign to only display the assignment to a specific member of the course or a grading group.
- Click Create to complete

LAUSD Shared Logins

AmplifyScience

Go to: my.amplify.com

A. Log In with Amplify

District Shared Logins		
Grade	**Username**	**Password**
Kindergarten	LAUSDscienceK	LAUSD1234
1	LAUSDscience1	LAUSD1234
2	LAUSDscience2	LAUSD1234
3	LAUSDscience3	LAUSD1234
4	LAUSDscience4	LAUSD1234
5	LAUSDscience5	LAUSD1234
6	LAUSDscience6	LAUSD1234
7	LAUSDscience7	LAUSD1234
8	LAUSDscience8	LAUSD1234