

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

Amplify Science

Unpacking Spinning Earth for Hybrid Learning

Grade 1, Unit 3

LAUSD

4/x/2021

Presented by Your Name



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

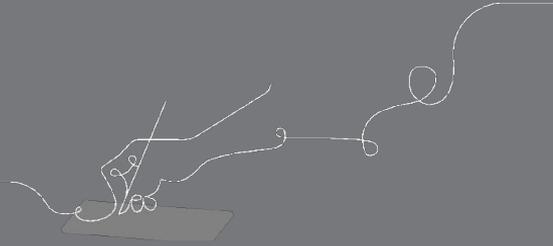
Amplify.

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

e





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



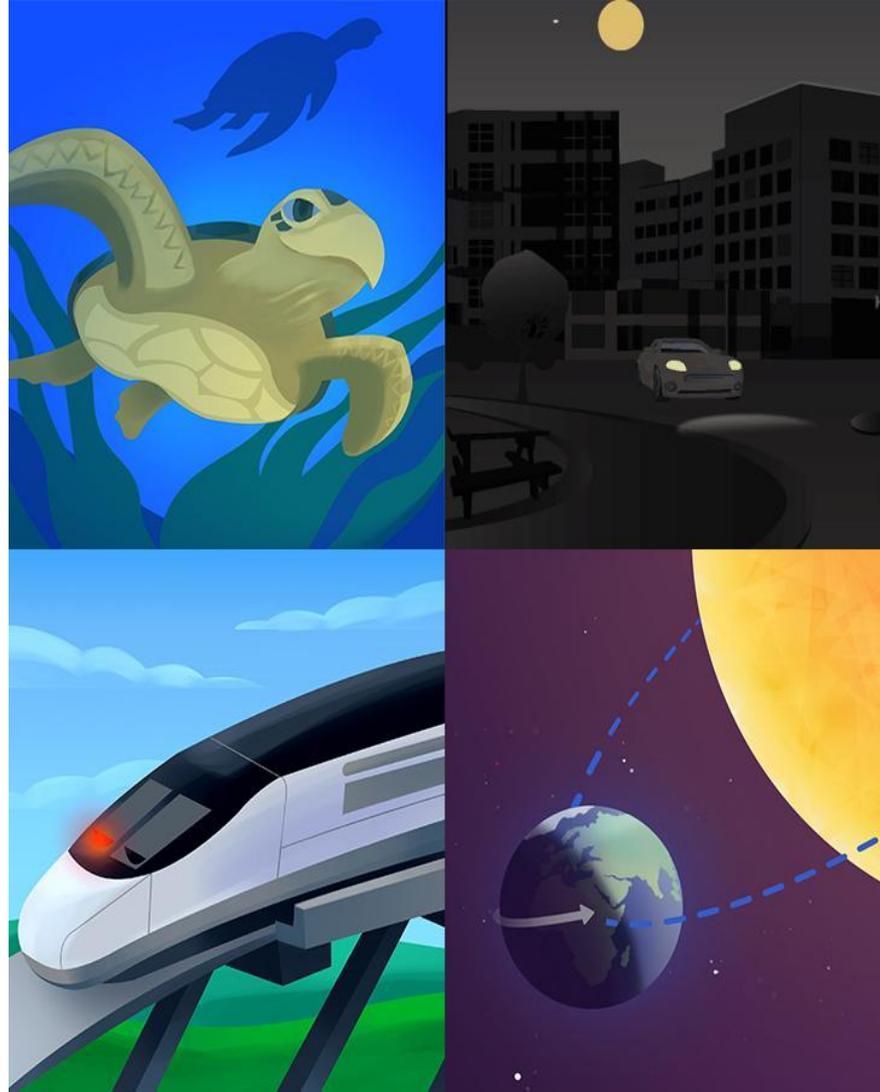
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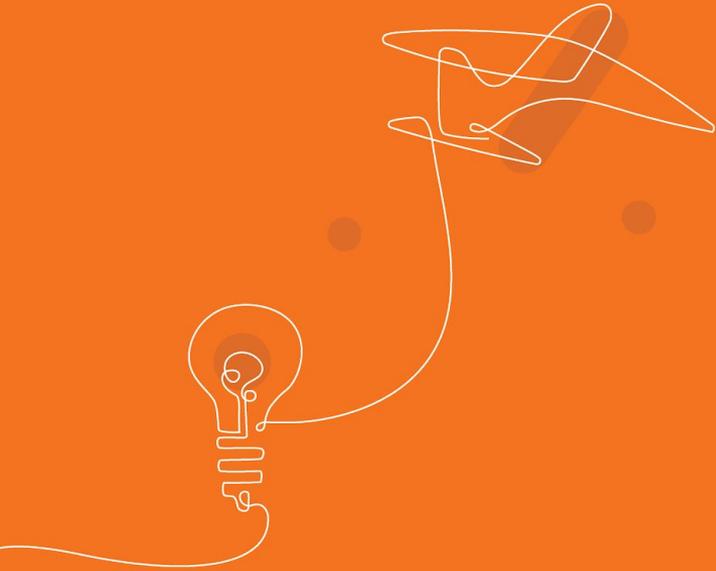
Opening reflection

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?**



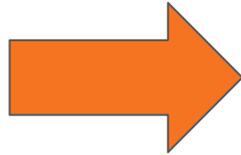
Key aspects of the Amplify Science instructional approach



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

Chapter 1 Question
Why did the sky look different to Sai than to his grandma?

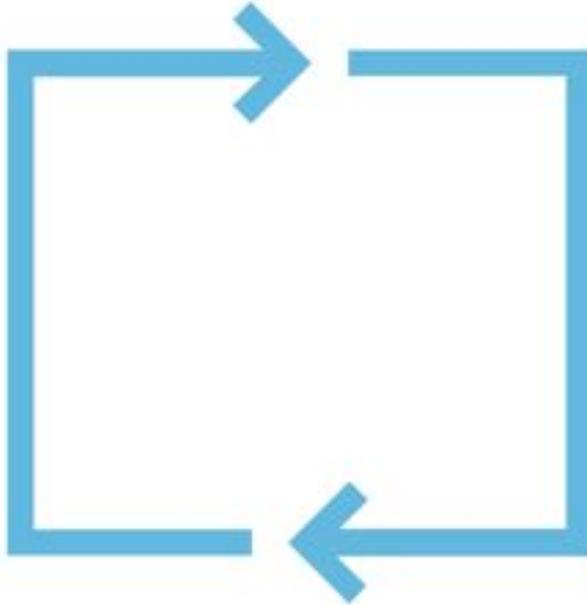
Chapter 2 Question
Why was it daytime for Sai when it was nighttime for his grandma?

22 Lessons

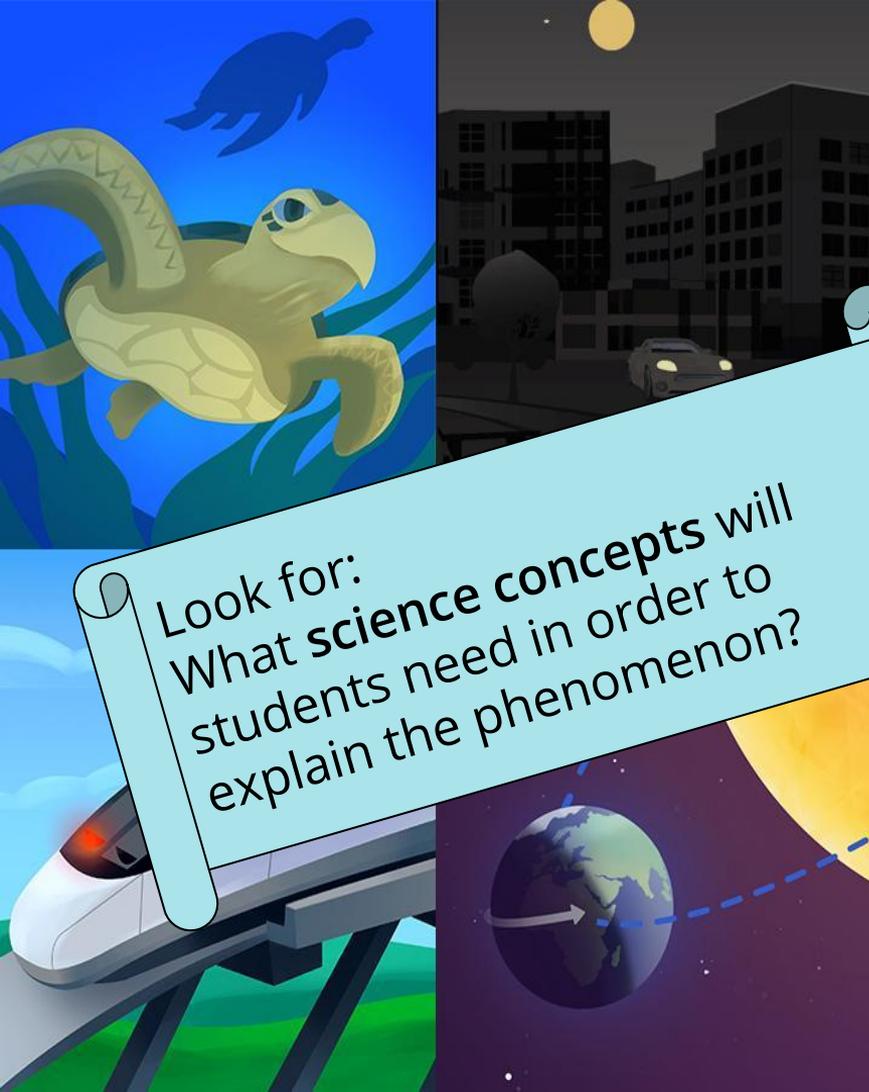
Spinning Earth

Multimodal learning

Gathering evidence over multiple lessons



**Do,
Talk,
Read,
Write,
Visualize**



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 - Collaborative planning time
- **Closing**
 - Reflection & survey

Look for:
What **science concepts** will
students need in order to
explain the phenomenon?

Explaining the phenomenon: science concepts

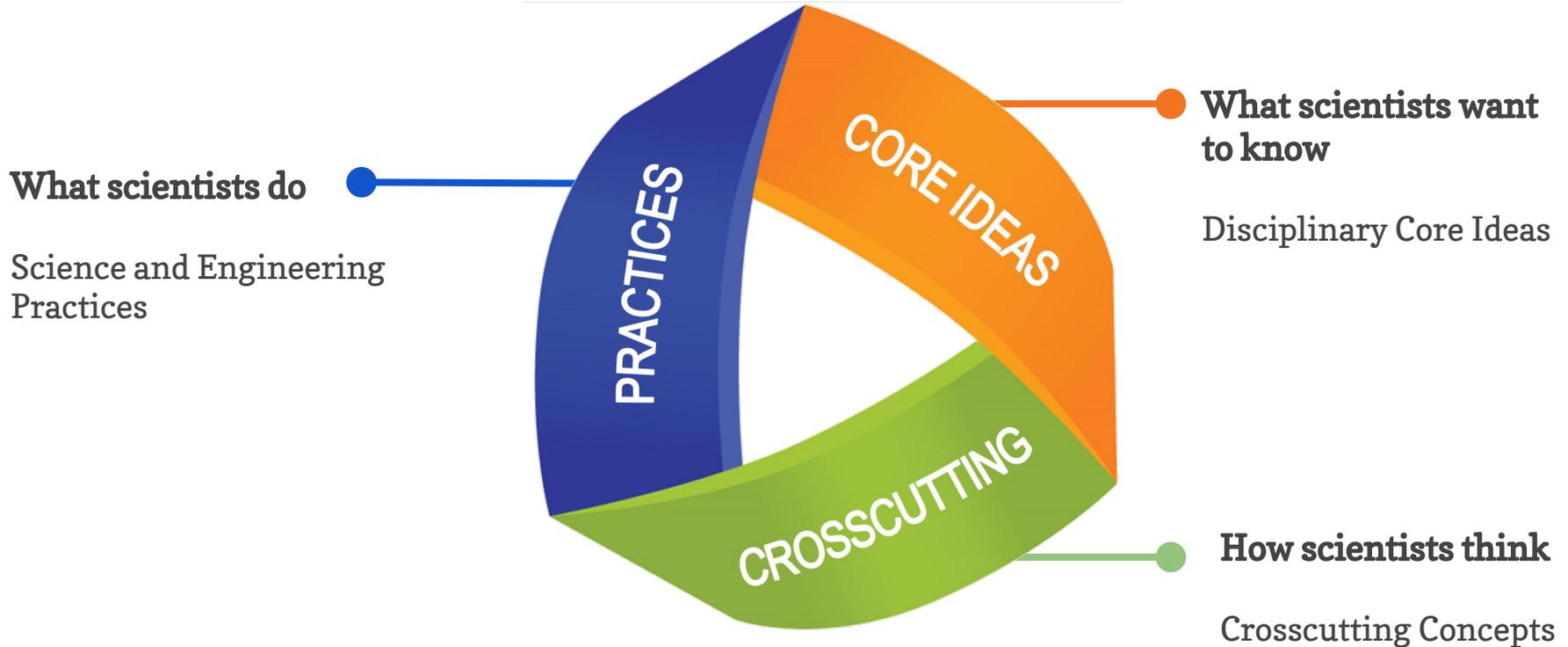
Please respond in the chat

What **science concepts** do you think students need to understand in order to construct an explanation to explain the daily cycles that are tied to the pattern of the sun's position in the sky?



Next Generation Science Standards

Designed to help students build a cohesive understanding of science



Key

Practices

Disciplinary Core Ideas

Crosscutting Concepts

Unit Level

Students collect and analyze data from firsthand investigations and secondary sources to explain why we see the patterns that are visible in the daytime and nighttime sky (patterns, cause and effect, systems and system models).

Navigation Temperature Check

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

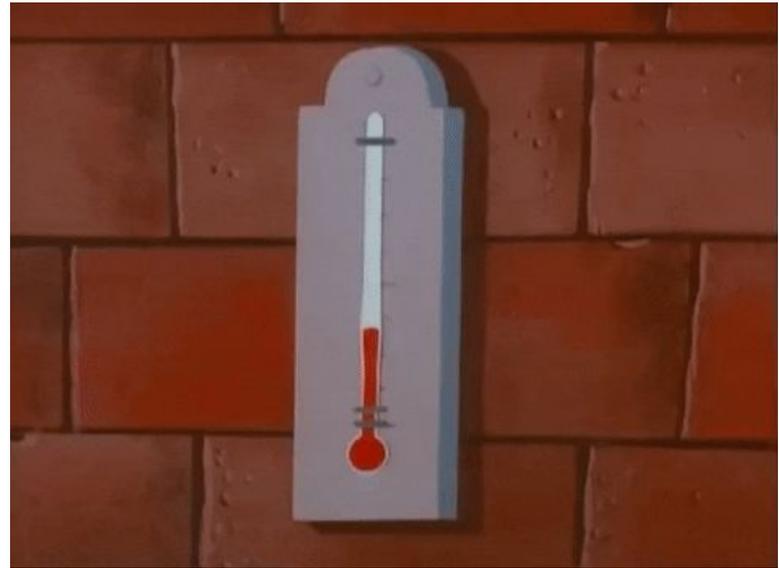
1 = Extremely Uncomfortable

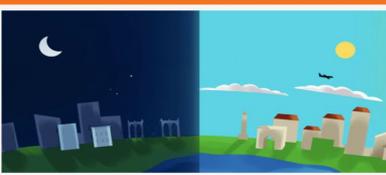
2 = Uncomfortable

3 = Mild

4 = Comfortable

5 = Extremely Comfortable



22 Lessons
Spinning Earth



Chapter 1: Why did the sky look different to Sai than to his grandma?
5 Lessons



Chapter 2: Why was it daytime for Sai when it was nighttime for his...
4 Lessons



Chapter 3: Why did daytime change to nighttime while Sai talked on the phone?
6 Lessons



Chapter 4: What will Sai see in the sky when he calls his grandma tomorrow?
4 Lessons



Chapter 5: Why was it nighttime for Sai when he called his grandma during th...
3 Lessons

Lesson 1.1:
Pre-Unit Assessment

Lesson 1.2:
After Sunset

Lesson 1.3:
The Pattern of Daytime and Nighttime

Lesson 1.4:
The Sky from Different Places

Lesson 1.5:
Explaining the Sky in Different Places

1	TEACHER-LED DISCUSSION Leading the Pre-Unit Assessment Conversation	2	TEACHER-LED DISCUSSION Introducing Sai and His Grandma	3	WRITING Making Sky Observations	4	TEACHER-LED DISCUSSION Discussing Sky Observations	Classroom Slides 1.1 Google Slides
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Unit Guide Resources

Planning for the Unit

- Unit Overview
- Unit Map
- Progress Build
- Getting Ready to Teach
- Materials and Preparation
- Science Background
- Standards at a Glance

Teacher References

- Lesson Overview Compilation
- Standards and Goals
- 3-D Statements
- Assessment System
- Embedded Formative Assessments
- Articles in This Unit
- Apps in This Unit
- Flextensions in This Unit

Printable Resources

- Article Compilation
- Coherence Flowchart
- Copymaster Compilation
- Flextension Compilation
- Investigation Notebook
- NGSS Information for Parents and Guardians
- Print Materials (8.5" x 11")
- Print Materials (11" x 17")

Offline Preparation

Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.

Offline Guide

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

Planning for the Unit

Unit Overview

Unit Map

Progress Build

Getting Ready to Teach

Materials and Preparation

Science Background

Standards at a Glance

Teacher References

Lesson Overview Compilation

Standards and Goals

3-D Statements

Assessment System

Embedded Formative Assessments

Articles in This Unit

Apps in This Unit

Flextensions in This Unit

Printable Resources

Article Compilation

Flextension Compilation

Investigation Notebook

NGSS Information for Parents and Guardians

Print Materials (8.5" x 11")

Print Materials (11" x 17")

Offline Preparation

Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.

Offline Guide

Pages 2-3

Spinning Earth

Planning for the Unit

Unit Map

Unit Map

Why doesn't the sky always look the same?

As sky scientists, students explain why a boy living in a nearby place sees different things in the sky than his grandma who lives in a faraway place. Students record, organize, and analyze observations of the sun and other sky objects as they look for patterns and make sense of the cycle of daytime and nighttime.

Chapter 1: Why did the sky look different to Sai than to his grandma?

Students figure out: Sai and his grandma saw different things at the same time because they live in different places. When it is daytime for Sai, it is nighttime for his grandma. When Sai sees the sun, Sai's grandma sees the stars.

How they figure it out: Students make observations of the daytime sky and read about observations of the nighttime sky. They use evidence from live webcams to compare and contrast what people in different places on Earth see in the sky at the same time. They begin to notice patterns in what they see in the sky.

Chapter 2: Why was it daytime for Sai when it was nighttime for his grandma?

Students figure out: It was daytime for Sai when it was nighttime for his grandma because Earth is shaped like a ball, and Sai and his grandma live on different parts of Earth. When the place where Sai lives is facing the sun, the place where his grandma lives is facing away from the sun.

How they figure it out: Students watch videos of Earth to develop an understanding that Earth's shape is round like a ball. Students use globes and their own heads as models of Earth to observe how different parts of Earth face the sun at different times. They conclude that it is daytime in places on Earth that are facing the sun and nighttime in places on Earth that are not facing the sun.

Chapter 3: Why did daytime change to nighttime while Sai talked on the phone?

Students figure out: It changed from daytime to nighttime because Earth is spinning. When Sai and his grandma started talking, he saw the sun because the place on Earth where he lives was facing the sun. As Earth spins, the place where Sai lives moves to face away from the sun, so it changes to nighttime.

How they figure it out: Students observe the position of the sun through the course of a day and record this data on their Sky Mural. They use these observations and view time-lapse videos to develop an understanding that Earth spins. Students then engage in a hands-on activity to conclude that, as Earth spins, we face different directions, so what we see in the sky changes.

Chapter 4: What will Sai see in the sky when he calls his grandma tomorrow?

Students figure out: When Sai talks on the phone to his grandma at the same time tomorrow, he will see the same thing he saw in the sky today. The sun makes the same pattern in the sky every day because Earth spins one full time every day. This pattern lets us predict that Sai will see the sunset in the evening.

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Spinning Earth Planning for the Unit

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because Earth spins one

ter?

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o of a year.

Regents of the University of California

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
	<i>Students figure out...</i>	<i>So they can explain...</i>
Chapter 1	By using evidence from their own observations in the sky and live webcams to compare and contrast what people in different places on Earth see in the sky at the same time.	Why the sky looked different to the young boy than his grandma. when they talked on the phone.



Chapter 1: Why did the sky look different to Sai than to his grandma?

Students figure out: Sai and his grandma saw different things at the same time because they live in different places. When it is daytime for Sai, it is nighttime for his grandma. When Sai sees the sun, Sai's grandma sees the stars.

How they figure it out: Students make observations of the daytime sky and read about observations of the nighttime sky. They use evidence from live webcams to compare and contrast what people in different places on Earth see in the sky at the same time. They begin to notice patterns in what they see in the sky.

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Applying conceptual understanding to explain the phenomenon

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	Science concepts	Explanation of the phenomenon
	<i>Students figure out...</i>	<i>So they can explain...</i>
Chapter 1	By using evidence from their own observations in the sky and live webcams to compare and contrast what people in different places on Earth see in the sky at the same time.	Why the sky looked different to the young boy than his grandma. when they talked on the phone.
Chapter 2	By using evidence from videos, globes, and their own head as models they conclude that it is daytime in places that are facing the sun. and nighttime in places that are not facing the sun.	That it is daytime in places facing the sun, and nighttime in places not facing the sun.

Chapter 2: Why was it daytime for Sai when it was nighttime for his grandma?

Students figure out: It was daytime for Sai when it was nighttime for his grandma because Earth is shaped like a ball, and Sai and his grandma live on different parts of Earth. When the place where Sai lives is facing the sun, the place where his grandma lives is facing away from the sun.

How they figure it out: Students watch videos of Earth to develop an understanding that Earth's shape is round like a ball. Students use globes and their own heads as models of Earth to observe how different parts of Earth face the sun at different times. They conclude that it is daytime in places on Earth that are facing the sun and nighttime in places on Earth that are not facing the sun.

Applying conceptual understanding to explain the phenomenon

Chapter 3: Why did daytime change to nighttime while Sai talked on the phone?

Students figure out: It changed from daytime to nighttime because Earth is spinning. When Sai and his grandma started talking, he saw the sun because the place on Earth where he lives was facing the sun. As Earth spins, the place where Sai lives moves to face away from the sun, so it changes to nighttime.

How they figure it out: Students observe the position of the sun through the course of a day and record this data on their Sky Mural. They use these observations and view time-lapse videos to develop an understanding that Earth spins. Students then engage in a hands-on activity to conclude that, as Earth spins, we face different directions, so what we see in the sky changes.

Chapter 3	<p>facing the sun.</p> <p>Noticing that the sun is in different places in the sky and appears to go below the horizon, students go on to observe and record the sun's position in the sky throughout the day. They also observe time-lapse videos for data.</p>	<p>That it changed from daytime to nighttime because the Earth is spinning. As Earth spins, we face different directions, so what we see changes in the sky.</p>
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
<i>Students figure out...</i>	<i>So they can explain...</i>



Chapter 4: What will Sai see in the sky when he calls his grandma tomorrow?

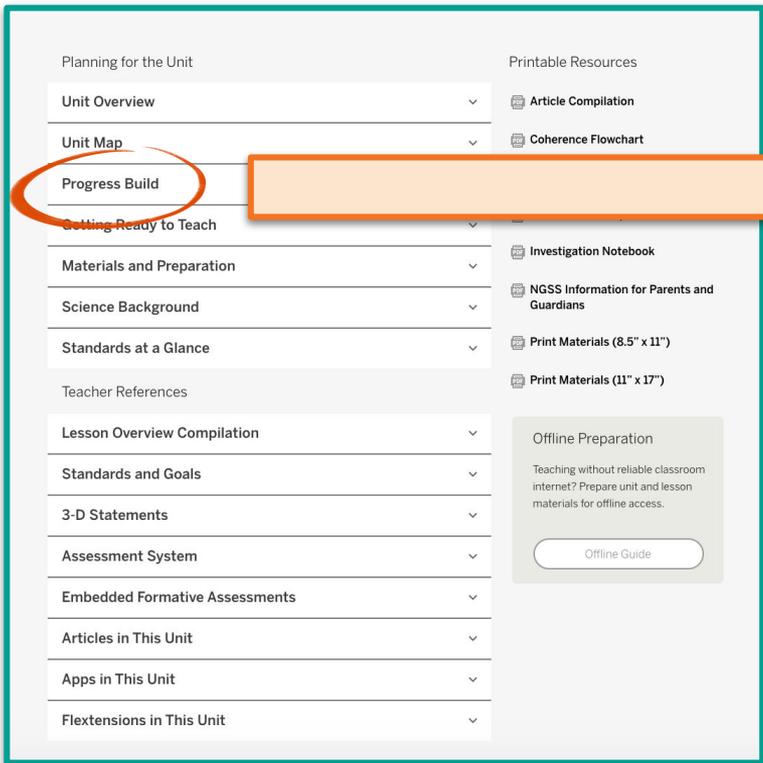
Students figure out: When Sai talks on the phone to his grandma at the same time tomorrow, he will see the same thing he saw in the sky today. The sun makes the same pattern in the sky every day because Earth spins one full time every day. This pattern lets us predict that Sai will see the sunset in the evening.

How they figure it out: Students make additional observations of the sky, both at the same time as previous observations and at sunset. They then record this new data on the Sky Mural. They organize this data in a new way in order to arrive at the understanding that the sun makes the same pattern in the sky every day because Earth spins one full time every day.

Chapter 4	By making additional observations of the sky, both at the same time as previous observations and at sunset.	That we see the sun make the same pattern in the sky each day because Earth is always spinning.
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Progress Build

Pages 4-5



Planning for the Unit

- Unit Overview
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- Progress Build**
- Getting Ready to Teach
- Materials and Preparation
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- Standards at a Glance

Teacher References

- Lesson Overview Compilation
- Standards and Goals
- 3-D Statements
- Assessment System
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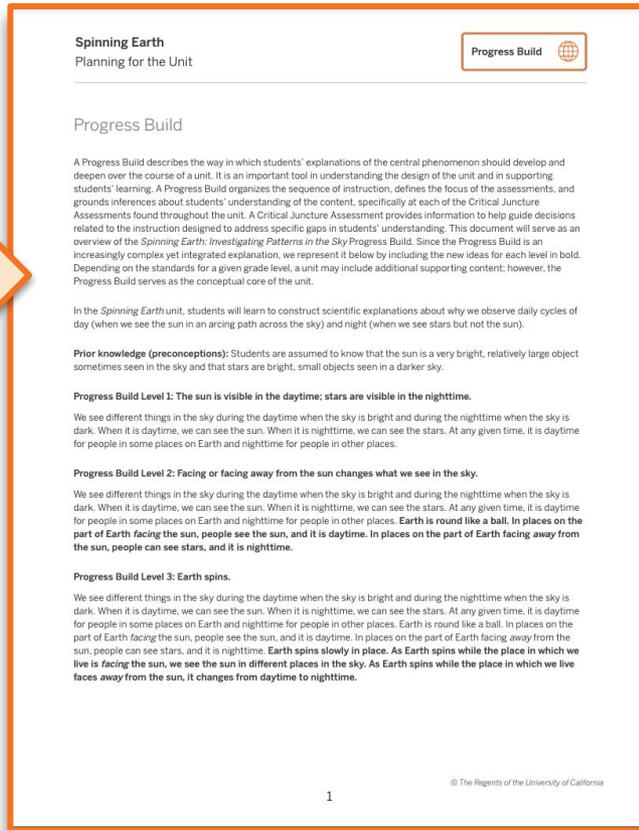
Printable Resources

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- Coherence Flowchart
- Investigation Notebook
- NGSS Information for Parents and Guardians
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- Print Materials (11" x 17")

Offline Preparation

Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.

Offline Guide



Spinning Earth
Planning for the Unit

Progress Build

A Progress Build describes the way in which students' explanations of the central phenomenon should develop and deepen over the course of a unit. It is an important tool in understanding the design of the unit and in supporting students' learning. A Progress Build organizes the sequence of instruction, defines the focus of the assessments, and grounds inferences about students' understanding of the content, specifically at each of the Critical Juncture Assessments found throughout the unit. A Critical Juncture Assessment provides information to help guide decisions related to the instruction designed to address specific gaps in students' understanding. This document will serve as an overview of the *Spinning Earth: Investigating Patterns in the Sky* Progress Build. Since the Progress Build is an increasingly complex yet integrated explanation, we represent it below by including the new ideas for each level in bold. Depending on the standards for a given grade level, a unit may include additional supporting content; however, the Progress Build serves as the conceptual core of the unit.

In the *Spinning Earth* unit, students will learn to construct scientific explanations about why we observe daily cycles of day (when we see the sun in an arcing path across the sky) and night (when we see stars but not the sun).

Prior knowledge (preconceptions): Students are assumed to know that the sun is a very bright, relatively large object sometimes seen in the sky and that stars are bright, small objects seen in a darker sky.

Progress Build Level 1: The sun is visible in the daytime; stars are visible in the nighttime.

We see different things in the sky during the daytime when the sky is bright and during the nighttime when the sky is dark. When it is daytime, we can see the sun. When it is nighttime, we can see the stars. At any given time, it is daytime for people in some places on Earth and nighttime for people in other places.

Progress Build Level 2: Facing or facing away from the sun changes what we see in the sky.

We see different things in the sky during the daytime when the sky is bright and during the nighttime when the sky is dark. When it is daytime, we can see the sun. When it is nighttime, we can see the stars. At any given time, it is daytime for people in some places on Earth and nighttime for people in other places. **Earth is round like a ball. In places on the part of Earth facing the sun, people see the sun, and it is daytime. In places on the part of Earth facing away from the sun, people can see stars, and it is nighttime.**

Progress Build Level 3: Earth spins.

We see different things in the sky during the daytime when the sky is bright and during the nighttime when the sky is dark. When it is daytime, we can see the sun. When it is nighttime, we can see the stars. At any given time, it is daytime for people in some places on Earth and nighttime for people in other places. Earth is round like a ball. In places on the part of Earth facing the sun, people see the sun, and it is daytime. In places on the part of Earth facing away from the sun, people can see stars, and it is nighttime. **Earth spins slowly in place. As Earth spins while the place in which we live is facing the sun, we see the sun in different places in the sky. As Earth spins while the place in which we live faces away from the sun, it changes from daytime to nighttime.**

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Spinning Earth
Planning for the Unit

and during the nighttime when the sky is dark. When it is daytime, we can see the sun. When it is nighttime, we can see the stars. At any given time, it is daytime for people in some places on Earth and nighttime for people in other places. Earth is round like a ball. In places on the part of Earth facing away from the sun, people can see stars, and it is nighttime. Earth spins slowly in place. As Earth spins while the place in which we live is facing the sun, we see the sun in different places in the sky. As Earth spins while the place in which we live faces away from the sun, it changes from daytime to nighttime.

2

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Progress Build



Level 4: Earth spins continuously.

Level 3: Earth spins.

Level 2: Facing or facing away from the sun changes what we see in the sky.

Level 1: The sun is visible in the daytime; stars are visible in the nighttime.

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

The screenshot shows a digital interface for science resources, organized into several sections:

- Planning for the Unit:** A list of dropdown menus including Unit Overview, Unit Map, Progress Build, Getting Ready to Teach, Materials and Preparation, **Science Background** (circled in red), Standards at a Glance, Lesson Overview Compilation, Standards and Goals (circled in red), 3-D Statements, Assessment System, Embedded Formative Assessments, Articles in This Unit, Apps in This Unit, and Flextensions in This Unit.
- Printable Resources:** A list of resources with printer icons, including Article Compilation, Coherence Flowchart, Copymaster Compilation, Flextension Compilation, Investigation Notebook, NGSS Information for Parents and Guardians, Print Materials (8.5" x 11"), and Print Materials (11" x 17").
- Offline Preparation:** A section with a text box stating "Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access." and a button labeled "Offline Guide".

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 4: Earth spins continuously.

Level 3: Earth spins.

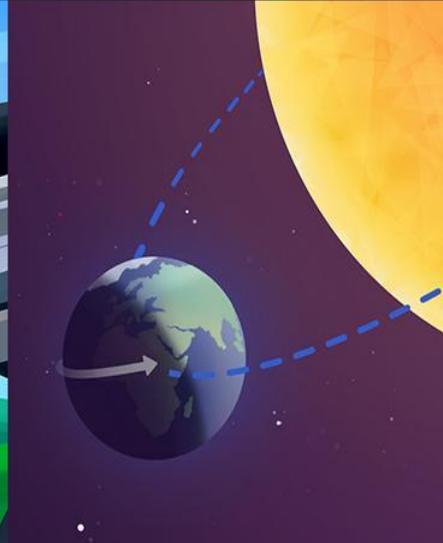
Level 2: Facing or facing away from the sun changes what we see in the sky.

Level 1: The sun is visible in the daytime; stars are visible in the nighttime.

Reflection

Jamboard

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





Plan for the day

- **Framing the day**
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 - Collaborative planning time
- **Closing**
 - Reflection & survey

Accessing the Program Hub

AmplifyScience

Hello Teacher Considine
t.considine@tryamplify.net

Log Out

Go To My Account ⚙️

Classroom Language Settings

LA Science Program Guide

Program Hub

Science Program Guide

FLORIDA EDITION

Standards Map

Help

6th Grade ▾

11 Lessons
Microbiome

19 Lessons
Metabolism

FUTURA
FOOD ENGINEERING

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https://www.amplify.com/floridastandards

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.

Spinning Earth ▾

[@Home Unit](#) [@Home Videos](#) [Hands-on investigations videos](#) [Read-Aloud Videos](#)

@Home Unit English ▾

[Instructions >](#)

SE@Home Teacher Resources

TEACHER OVERVIEW
🔗 Google
📄 PDF

LESSON INDEX
📄 PDF

SE@Home Family Overview

🔗 Google
📄 PDF

SE@Home Student Materials Compilations

ALL SLIDES
🔗 Google

ALL STUDENT SHEETS
🔗 Google

ALL PACKETS (INCL. STUDENT SHEETS)
📄 PDF

SE@Home Lesson 1

SLIDES
🔗 Google
📄 PDF

STUDENT SHEETS
🔗 Google
📄 PDF

SE@Home Lesson 2

SLIDES
🔗 Google
📄 PDF

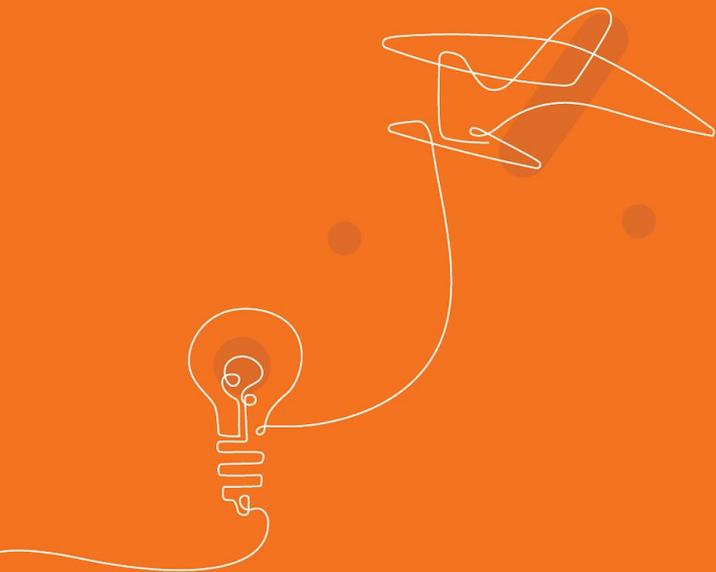
STUDENT SHEETS
🔗 Google
📄 PDF

SE@Home Lesson 3

SLIDES
🔗 Google
📄 PDF

STUDENT SHEETS
🔗 Google
📄 PDF

Lesson Walkthrough



Key activities

- **Talk:** Students observe a series of sky images and discuss how things in the sky are different during the daytime and the nighttime, and then are introduced to the Unit Question.
- **Introducing Sai and His Grandma:** Students are introduced to their role as sky scientists who will help a boy named Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.
- **Observe:** Students make and record observations of the sky.

Ideas for synchronous or in-person instruction

While meeting, display the series of sky images and invite students to share their observations of how things in the sky are different during the daytime and the nighttime. Then, introduce students to their role as sky scientists who will help Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.



@Home Lesson 1

Spinning Earth



Today, we are going to begin investigating what we see in the **sky**.

When scientists begin an **investigation**, they think about what ideas they already have about the thing they are interested in.

We are interested in the **sky**. We will look at some photographs to see what ideas we already have about the sky.

You will need a **partner** to talk with.

Your partner can be a family member, a friend or classmate on the phone, a stuffed animal, or even a pet!

These are photos of the **sky** above a place. They were taken at **different times** on one day.



morning



afternoon



night



What do you **notice** in these pictures?



morning



afternoon



night



Why does the sky look different **at different times?**



morning



afternoon



night



These pictures show the sky in the morning and at night.



How is the sky **different** at these two times?
Why does the sky look different at these two times?



These pictures show the sky in the morning and in the afternoon.



How is the sky **different** at these two times?
Why does the sky look different at these two times?



These pictures show the sky in the morning, the afternoon, and the middle of the night.



Imagine that we took another picture of the sky, the next morning. What would the sky look like the **next morning**?



morning



afternoon



night

We have figured out that we can see **different things in the sky** at different times.

We will think about this bigger idea in our work as sky scientists.

This is the end of the partner work in this lesson.

In this unit, we will work to figure out:

Unit Question

Why does the sky look different at different times?

Key activities

- **Talk:** Students observe a series of sky images and discuss how things in the sky are different during the daytime and the nighttime, and then are introduced to the Unit Question.
- **Introducing Sai and His Grandma:** Students are introduced to their role as sky scientists who will help a boy named Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.
- **Observe:** Students make and record observations of the sky.

Ideas for synchronous or in-person instruction

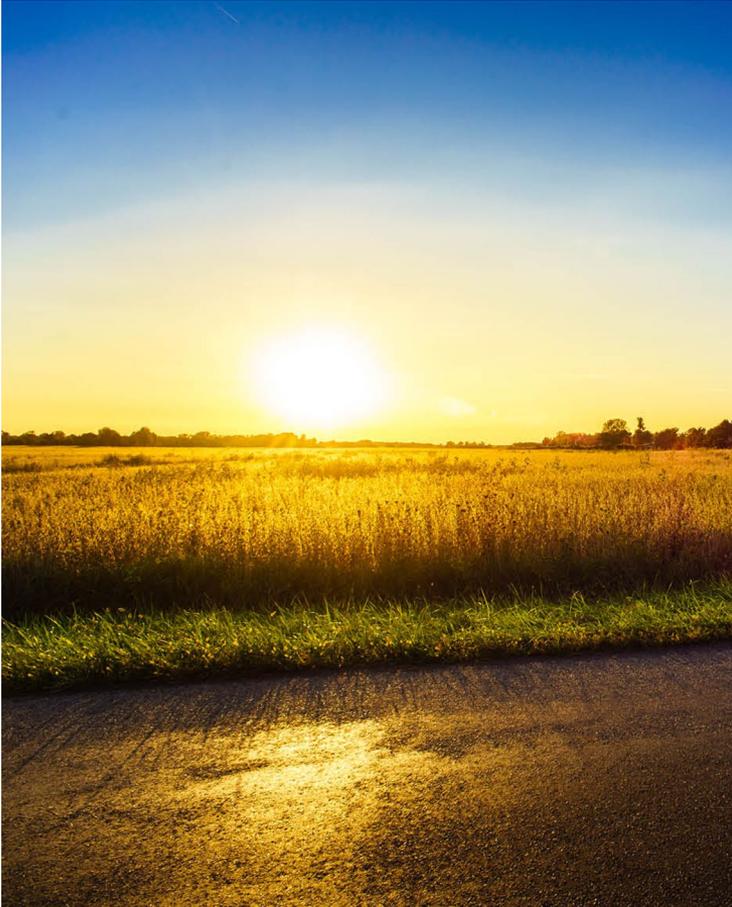
While meeting, display the series of sky images and invite students to share their observations of how things in the sky are different during the daytime and the nighttime. Then, introduce students to their role as sky scientists who will help Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.



This is a picture of a boy named **Sai and his grandma**. Sai lives in a place near us. Sai needs our help to figure out a problem.



Sai called his grandma on the phone at the time he usually calls her—just before his bedtime.



This picture shows what Sai saw in the sky when he called his grandma.



What do you **notice** in this picture?



This picture shows what the sky looked like for Sai's grandma when Sai called.



What do you **notice** in this picture?



Think about what the sky looked like to Sai and to his grandma.



Did the sky look the **same** or **different** to Sai and to his grandma? How did it look the same or different?



Sai wants to know why the sky looks different to him than to his grandma.
In order to help Sai, we are going to work as **sky scientists.**

Scientists are people who study and learn about what happens in the world around them.

Scientists ask a lot of **questions** to learn more about the world. We are going to ask a lot of questions as we help Sai.

In this chapter, we will work to figure out:

Chapter 1 Question

Why did the sky look different to Sai than to his grandma?



Now is a good time to take a break.

Key activities

- **Talk:** Students observe a series of sky images and discuss how things in the sky are different during the daytime and the nighttime, and then are introduced to the Unit Question.
- **Introducing Sai and His Grandma:** Students are introduced to their role as sky scientists who will help a boy named Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.
- **Observe:** Students make and record observations of the sky.

Ideas for synchronous or in-person instruction

While meeting, display the series of sky images and invite students to share their observations of how things in the sky are different during the daytime and the nighttime. Then, introduce students to their role as sky scientists who will help Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.

We are working as sky scientists to help Sai answer his question about the sky.

To help Sai, we first need to **observe the sky** ourselves to help us understand what we see in the sky at different times.

This might help us explain what Sai and his grandma saw in the sky.

We will begin by investigating this question:

What can we see in the sky at different times?

To help answer our Investigation Question, we are going to go outside or look out a window to observe the sky.

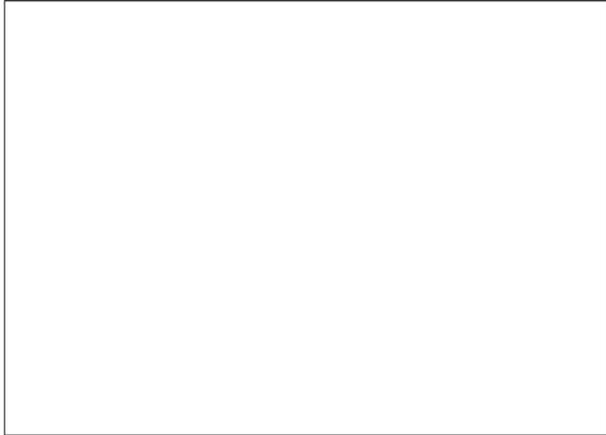
We will **record what we observe** in the sky. Scientists record observations by drawing or writing information. This helps them remember what they observe.

Name: _____ Date: _____

Sky Observations 1

Directions:

1. Observe the sky.
2. Draw what you observe in the sky.
3. Label your drawing.



Find the **Sky Observations 1** page.

We will use this page to **record** our observations.

First, let's watch a video to learn more about making and recording sky observations.

Note: All videos in this @Home Unit can be viewed on a smartphone or any other connected device.

Scientists do not spend a lot of time making a perfect drawing if that will not help them **remember** it better.



Using the print version? Find the video at tinyurl.com/AMPSE-01

You will go outside with an adult or look out a window to make **observations** of the sky. You may see many things. You can record one thing or more than one thing that you observe.

When observing the sky, it is very important never to look directly at the sun.

Make sure you are with an adult if you go outside for your observation. Never look directly at the sun.

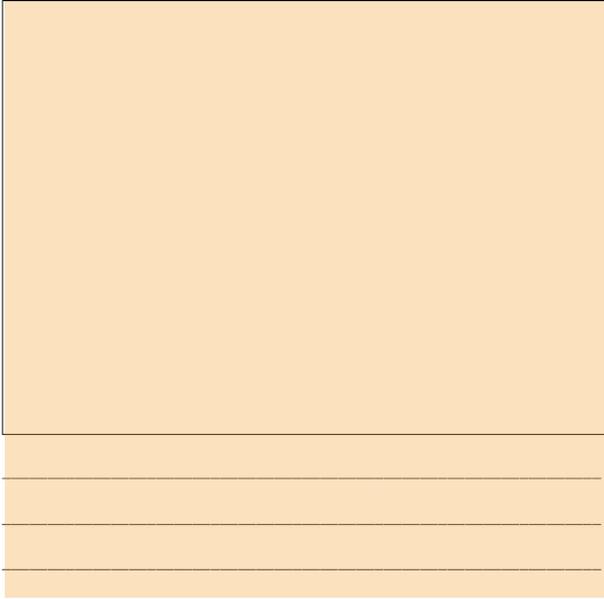


Name: _____ Date: _____

Sky Observations 1

Directions:

1. Observe the sky.
2. Draw what you observe in the sky.
3. Label your drawing.

A large rectangular area for drawing, divided into a top section and a bottom section with horizontal lines. The top section is a solid light orange color, and the bottom section is white with three horizontal lines.

Observe the sky.
Draw and label what
you observe.

We will be learning new **science words** to help with our investigations.

We just **recorded** our observations of the sky.

Now, we will think more about **one** of the new words we are learning.

To **record** is to draw or write down information.



record

1. Practice saying the word to yourself: **record**
2. Practice saying the word to someone at home: **record**
3. Practice whispering the word: **record**

Glossary

data: observations or measurements recorded in an investigation

datos: observaciones o mediciones apuntadas en una investigación

day: a length of time that includes one full daytime and one full nighttime

día: un periodo de tiempo que incluye las horas diurnas y las horas nocturnas

daytime: the part of the day when the sky is bright

horas diurnas: la parte del día en la que el cielo está luminoso

Earth: the planet we live on

Tierra: el planeta en el que vivimos

horizon: the line where Earth and the sky look like they come together

horizonte: la línea en donde parece que se juntan la Tierra y el cielo

nighttime: the part of the day when the sky is dark

horas nocturnas: la parte del día en la que el cielo está oscuro

organize: to set things up in a way that makes sense

organizar: ordenar las cosas de manera que tenga sentido

pattern: something we observe to be similar over and over again

patrón: algo que observamos que sea similar una y otra vez

predict: to use what you already know to decide what you think might happen

predecir: usar lo que ya sabes para decidir lo que piensas que podría pasar

record: to draw or write down information

apuntar: dibujar o escribir información

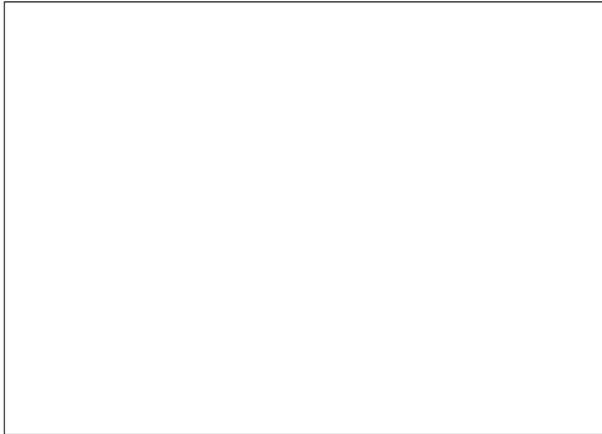
You have a **Glossary**
you can use if you need
to find definitions for
science words we are
using.

Name: _____ Date: _____

Sky Observations 1

Directions:

1. Observe the sky.
2. Draw what you observe in the sky.
3. Label your drawing.





What did you see when
you **observed** the sky?
How did you **draw** what
you observed?

We observed that during the day, we can see the sun in the sky.

In the next lesson, we will continue working as sky scientists to investigate what can be seen in the sky at different times.

End of @Home Lesson



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Key activities

- **Talk:** Students observe a series of sky images and discuss how things in the sky are different during the daytime and the nighttime, and then are introduced to the Unit Question.
- **Introducing Sai and His Grandma:** Students are introduced to their role as sky scientists who will help a boy named Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.
- **Observe:** Students make and record observations of the sky.

Ideas for synchronous or in-person instruction

While meeting, display the series of sky images and invite students to share their observations of how things in the sky are different during the daytime and the nighttime. Then, introduce students to their role as sky scientists who will help Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.

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.



Questioning Strategies

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

Questioning Strategies for Grades K-1

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.

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and Discourse

That Are Especially Suited for

in prompts for pairs or small groups of you circulate through the classroom during students' knowledge and skills, promote

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Hands-on Suggestions

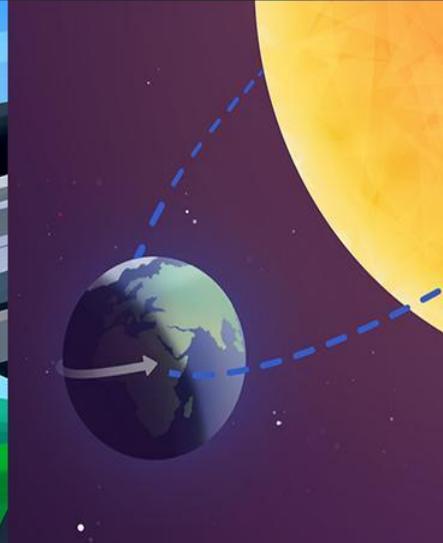
Grade 1			Unit: Spinning Earth		Hands-On Investigation Video Playlist				
Lesson	Activity	@Home Lesson	Activity Description	Suggested Modality	Reasoning	Teacher/Student Provided Materials	Consumable Materials	Non-Consumable Materials	LAUSD Replacement Materials
2.1	3	March 17	Students use stickers and data from The Sky from Different Places table to label locations experiencing daytime and nighttime on a globe.	hands-on	This could be a doable hands-on activity if students are provided with an inflatable globe.		stickers, 1-inch: yellow, green, purple, orange, pink, red stickers: light blue, black 1 set per student	1 inflatable globe per student 1 hand pump per student	1 inflatable globe per student 1 hand pump per student stickers, 1-inch: yellow, green, purple, orange, pink, red stickers: light blue, black -1 set per student
throughout			All other hands-on activities in this unit are physical (TPR), graphing weather data, charting, and creating a class mural.	hands-on	These activities should be prioritized during in class learning.				

Reflection

Jamboard

How would you teach this lesson?

How might you include suggestions for online synchronous time and/or questioning strategies?



Day _____	Day _____
Minutes for science: _____	Minutes for science: _____
Lesson or part of lesson:	Lesson or part of lesson:



Key activities

- **Talk:** Students observe a series of sky images and discuss how things in the sky are different during the daytime and the nighttime, and then are introduced to the Unit Question.
 - **Introducing Sai and His Grandma:** Students are introduced to their role as sky scientists who will help a boy named Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.
-
- **Observe:** Students make and record observations of the sky.

Additional notes:	Additional notes:
-------------------	-------------------

Day MondayMinutes for science: 30

Lesson or part of lesson:

@Home Lesson 1 slides 1-19

Purpose or big idea:

Students make and share observations about sky images. They are introduced to their role, the problem to be solved, and the Unit Question.

Students will

Teacher will

Day TuesdayMinutes for science: 30

Lesson or part of lesson:

@Home Lesson 1 slides 21-33

Purpose or big idea:

Students will record observations from the sky.

Students will

Teacher will



Ideas for synchronous or in-person instruction

While meeting, display the series of sky images and invite students to share their observations of how things in the sky are different during the daytime and the nighttime. Then, introduce students to their role as sky scientists who will help Sai figure out why the sky looked different to him and to his grandma when they talked on the phone.

Additional notes:

Additional notes:

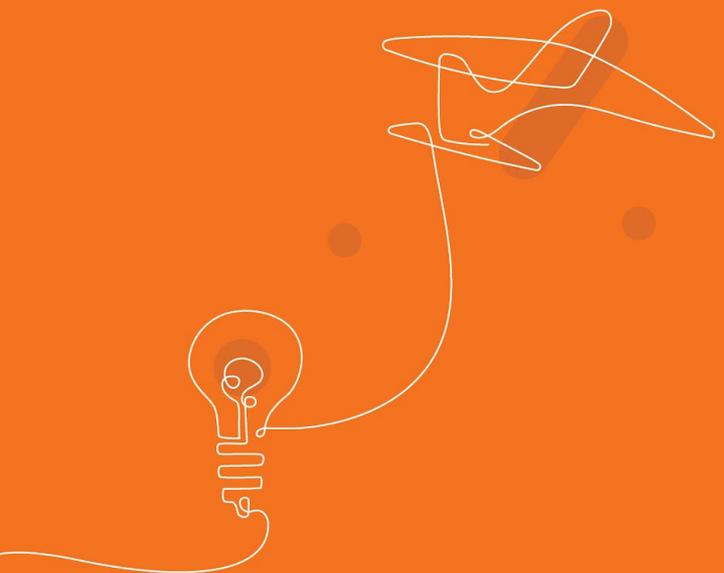
Lesson planning with @Home Units

Day <u>Monday</u>		Day <u>Tuesday</u>	
Minutes for science: <u>30</u>		Minutes for science: <u>30</u>	
Lesson or part of lesson: @Home Lesson 1 slides 1-19 Purpose or big idea: Students make and share observations about sky images. They are introduced to their role, the problem to be solved, and the Unit Question.		Lesson or part of lesson: @Home Lesson 1 slides 21-33 Purpose or big idea: Students will record observations from the sky.	
Students will... -observe various sky images and discuss how they are different during the daytime and the nighttime. - be introduced to the Unit Question. - be introduced to their role as Sky Scientists. - be introduced to the problem we will help solve.	Teacher will... -Show the various images and lead a discussion around those images. -introduce the Unit Question & Chapter Question. -Will introduce the student role. -Will introduce the problem the students will solve.	Students will...	Teacher will...
Additional notes:		Additional notes:	



<p>Day <u>Monday</u></p>		<p>Day <u>Tuesday</u></p>	
<p>Minutes for science: <u>30</u></p>		<p>Minutes for science: <u>30</u></p>	
<p>Lesson or part of lesson: @Home Lesson 1 slides 1-19 Purpose or big idea: Students make and share observations about sky images. They are introduced to their role. They are also introduced to the Unit Question</p>		<p>Lesson or part of lesson: @Home Lesson 1 slides 21-33 Purpose or big idea: Students will record observations from the sky.</p>	
<p>Students will...</p> <ul style="list-style-type: none"> -observe various sky images and discuss how they are different during the daytime and the nighttime. - be introduced to the Unit Question. - be introduced to their role as Sky Scientists. - be introduced to the problem we will help solve. 	<p>Teacher will...</p> <ul style="list-style-type: none"> -Show the various images and lead a discussion around those images. -introduce the Unit Question & Chapter Question. Will introduce the student role. -Will introduce the problem the students will solve. 	<p>Students will...</p> <ul style="list-style-type: none"> -discuss the content from the images they observed in previous lesson. -watch a video on how to record what they observe. - student will record their observations by looking out the window or going outside with a caregiver. -learn the new vocabulary word "record". 	<p>Teacher will...</p> <ul style="list-style-type: none"> -review student role and problem. -review content of the images that students viewed. -introduce the Investigation Question. -introduce a video on how to draw for to record data. -introduce the student sheet to draw their observations. -Vocab routine-"record"
<p>Additional notes:</p>		<p>Additional notes:</p> <ul style="list-style-type: none"> -Students can make an additional observation of the sky at a later time in the day to practice recording observations. -Share folktales from other cultural backgrounds about the sun and the moon. 	





Collaborative Planning

Breakout groups

Discussion prompts

Planning:

- Dig into the @Home Resources for your assigned lesson.

Student work:

- Discuss how you can collect evidence of student work

Differentiation:

- Consider how you might differentiate your lesson

Lesson planning with @Home Units

Day _____		Day _____	
Minutes for science: _____		Minutes for science: _____	
Lesson or part of lesson: Purpose or big idea:		Lesson or part of lesson: Purpose or big idea:	
Students will...	Teacher will...	Students will...	Teacher will...
Additional notes:		Additional notes:	



Breakout groups

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?

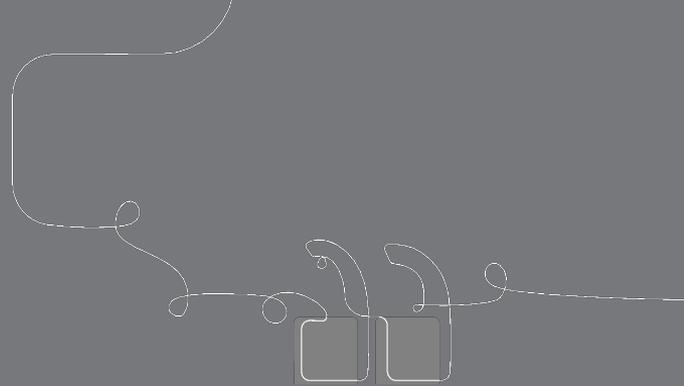
Differentiation:

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

Lesson planning with @Home Units

Day _____		Day _____	
Minutes for science: _____		Minutes for science: _____	
Lesson or part of lesson:		Lesson or part of lesson:	
Purpose or big idea:		Purpose or big idea:	
Students will...	Teacher will...	Students will...	Teacher will...
Additional notes:		Additional notes:	

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

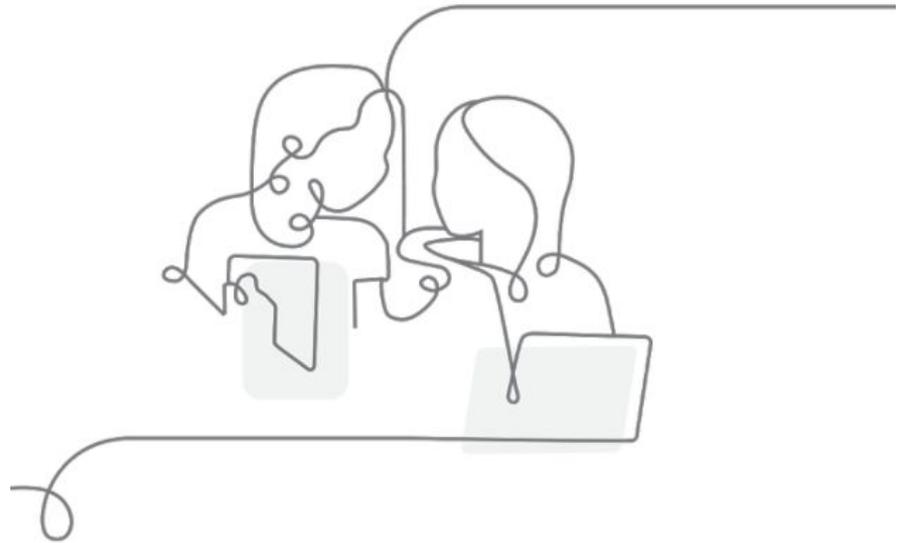
Head or hands reflection

Reflect independently, then volunteer to share

Based on our work today with the unit storyline and the role of evidence sources....

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

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

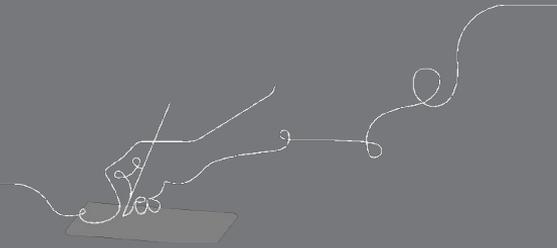


During this workshop did we meet our objectives?

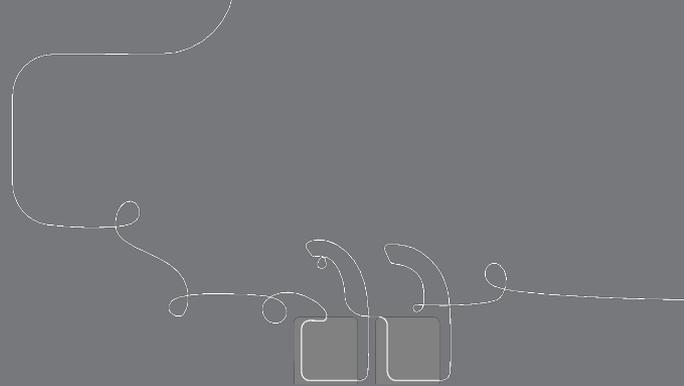
Do you feel able to...

- 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?

e



Final questions?

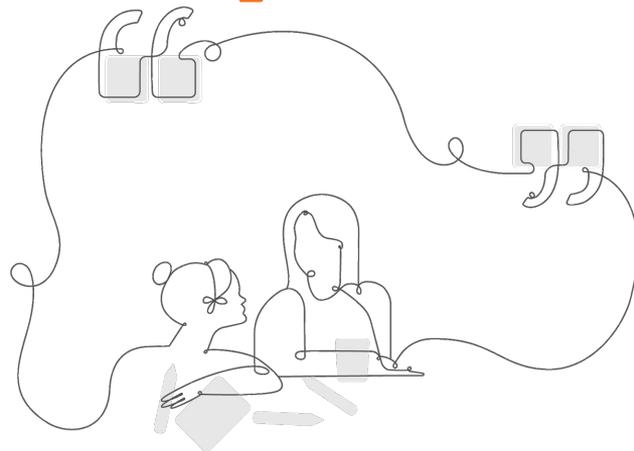


Upcoming LAUSD Office Hours

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

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

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



Hello Teacher Considine
t.lconsidine@tryamplify.net

Log Out

Go To My Account 

Classroom Language
Settings

Additional Resources



Benchmark
Assessments



CALIFORNIA
DISCIPLINE
CA Science
Program Guide

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

The screenshot shows the Amplify Science Program Hub interface. On the left is a sidebar menu with a hamburger menu icon circled in orange. Below it are links for "Hello Teacher Considine" (with email t.lconsidine@tryamplify.net), "Log Out", and "Go To My Account" with a gear icon. A "Classroom Language Settings" button is also present. The main content area features a grid of icons: "LA Science Program Guide", "Program Hub" (highlighted with an orange arrow), "Science Program Guide", "FLORIDA EDITION Standards Map", and "Help" (with a bear icon). Below the grid is a section for "11 Lessons Microbiome" with a background image of colorful microorganisms. At the bottom is the "FUTURA FOOD ENGINEERING" logo.

The screenshot shows the main content area of the Amplify Science Program Hub. At the top is the "AmplifyScience" logo. Below it is a "Welcome Science Educators!" heading, followed by a paragraph: "The Amplify Science Program Hub was created to provide you with resources, tools, and advice for all stages of your implementation." Below this are three resource categories, each with a blue background and an icon:

- Remote and hybrid learning resources**: Amplify Science@Home makes remote and hybrid learning easier. (Icon: laptop and notebook)
- Professional Learning Resources**: Let's get started! (Icon: three people icons)
- Additional Unit Materials**: Additional resources to complement the units you're teaching. (Icon: folder with plus sign)

Orange arrows point from the "Program Hub" icon in the sidebar to the "Remote and hybrid learning resources" and "Professional Learning Resources" sections.

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