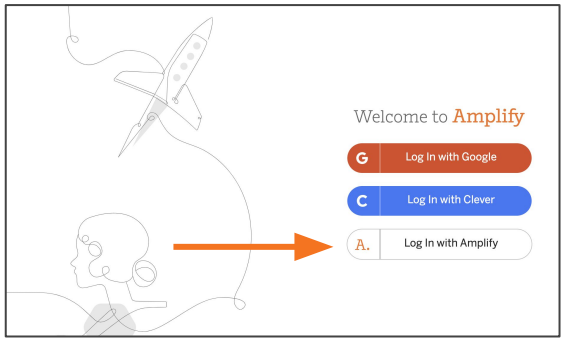
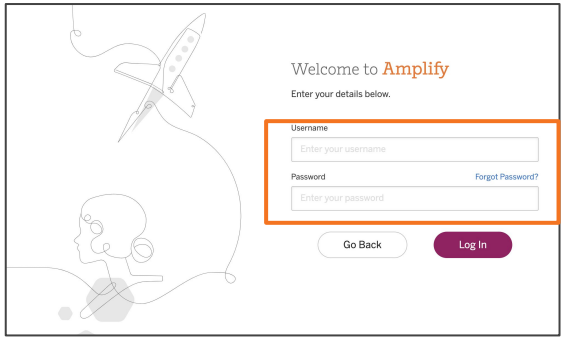
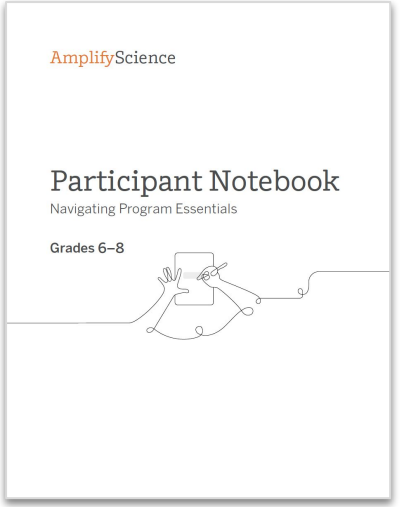
Welcome to Amplify Science!

Do Now: Login and open your digital participant packet

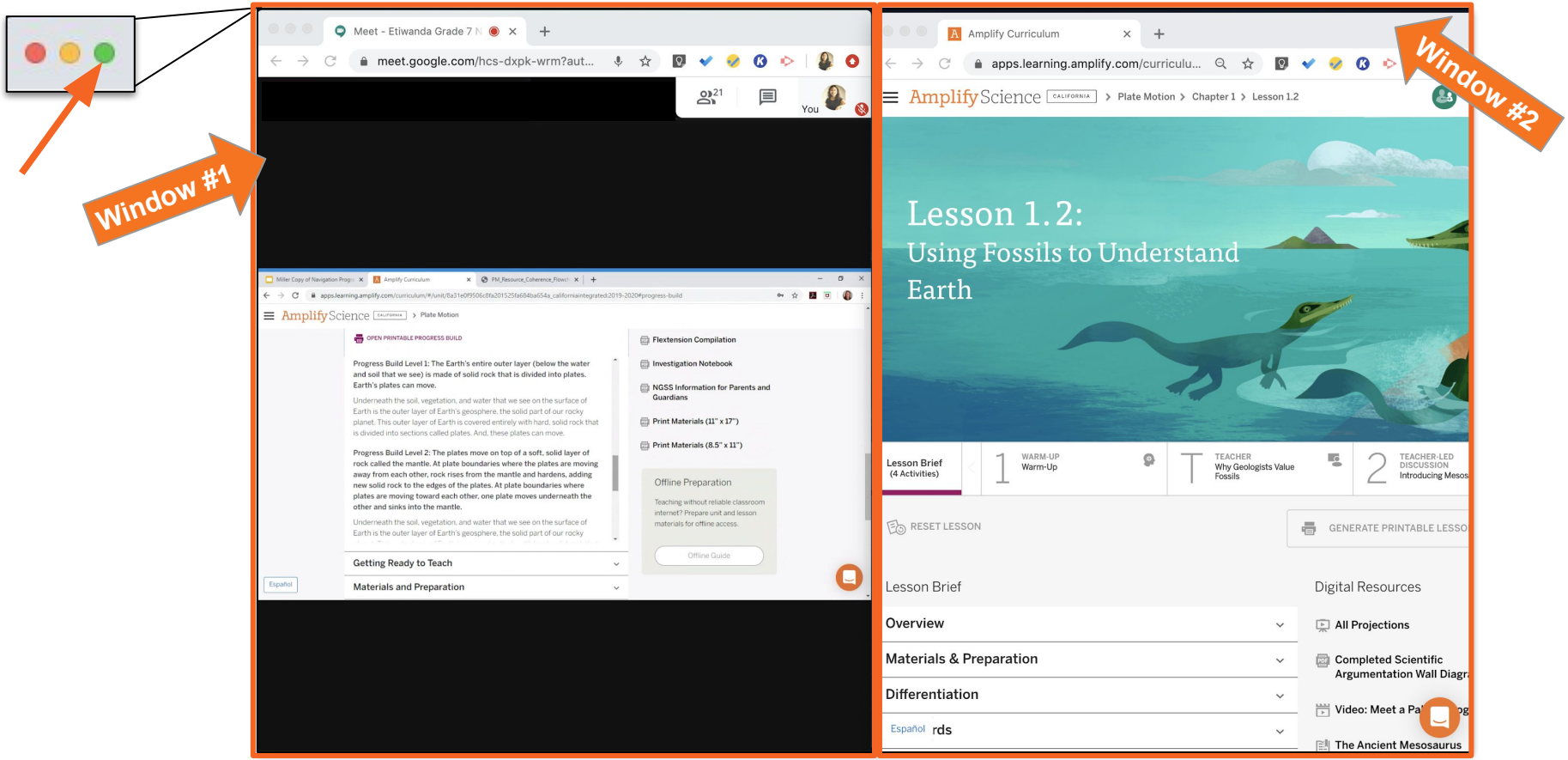




1. Go to **learning.amplify.com**
2. Select **Log in with Amplify**
3. Enter teacher demo account credentials
   - nycdoe_middle@tryamplify.net
   - Password: AmplifyNumber1
4. Explore as we wait to begin



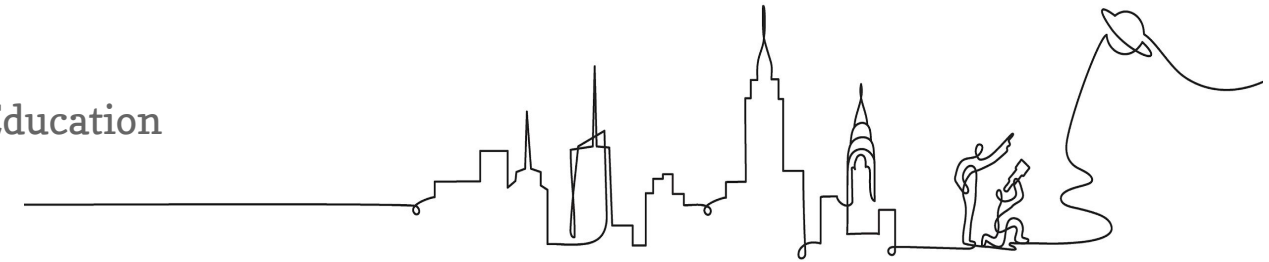
Use two windows for today's webinar



Amplify Science
New York City

Introduction to Amplify Science
NYC Summer Institute, Day 2

Grade 8: Geology on Mars & Earth, Moon and Sun



New York City Department of Education
July 22, 2020
Presented by

Remote Professional Learning Norms

Orient yourself to the platform

- *"Where's the chat box? Where's the mute button?"*

Mute your microphone unless sharing with the group

Use the chat box for posting questions or responses

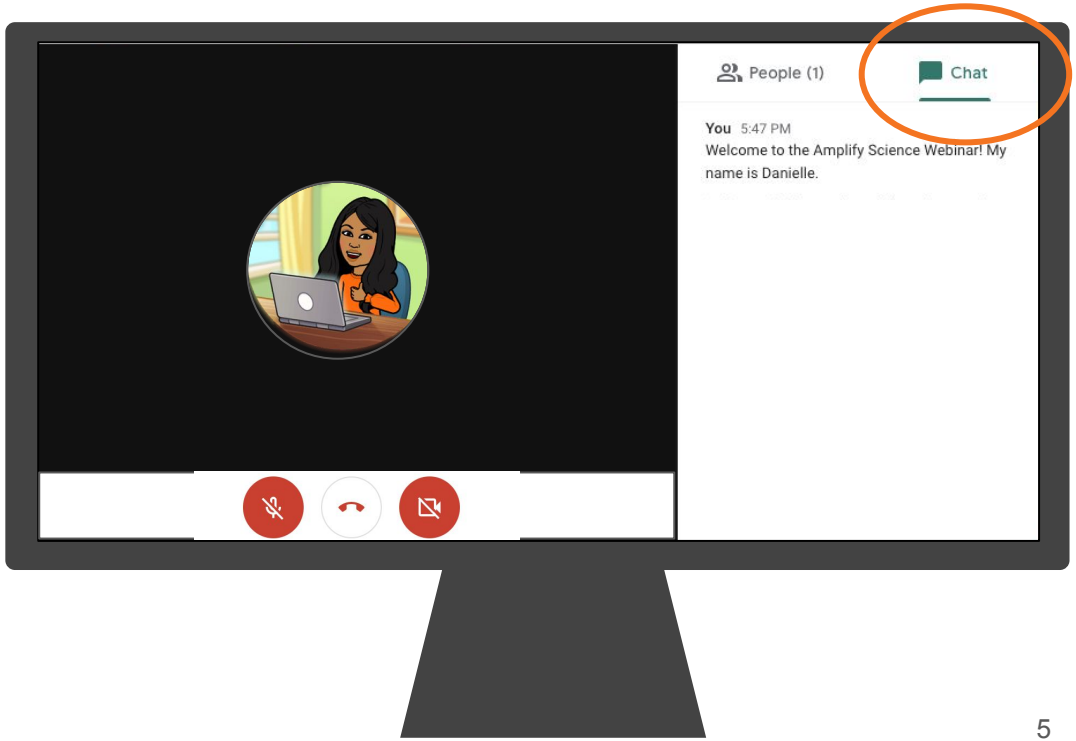
Have a note-catcher

Engage at your comfort level - chat, ask questions, discuss.

Culture Building

Share your answers in the chat.

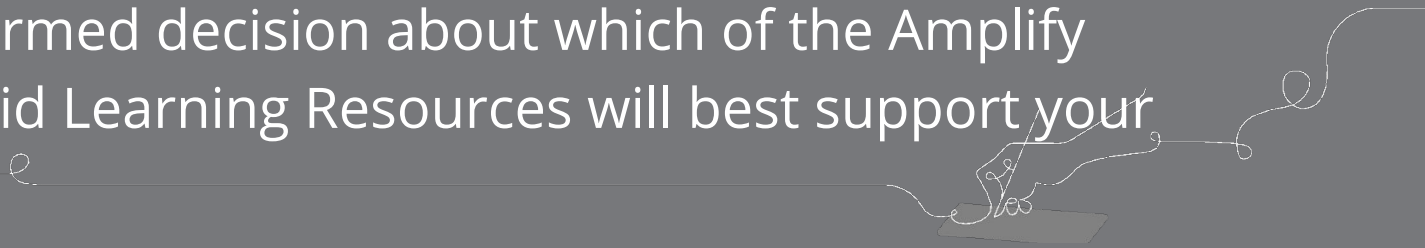
- **Question 1:** What did you learn about yesterday that made you excited to teach Amplify Science?
- **Question 2:** What are you looking forward to learning more about today?



Overarching goals

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

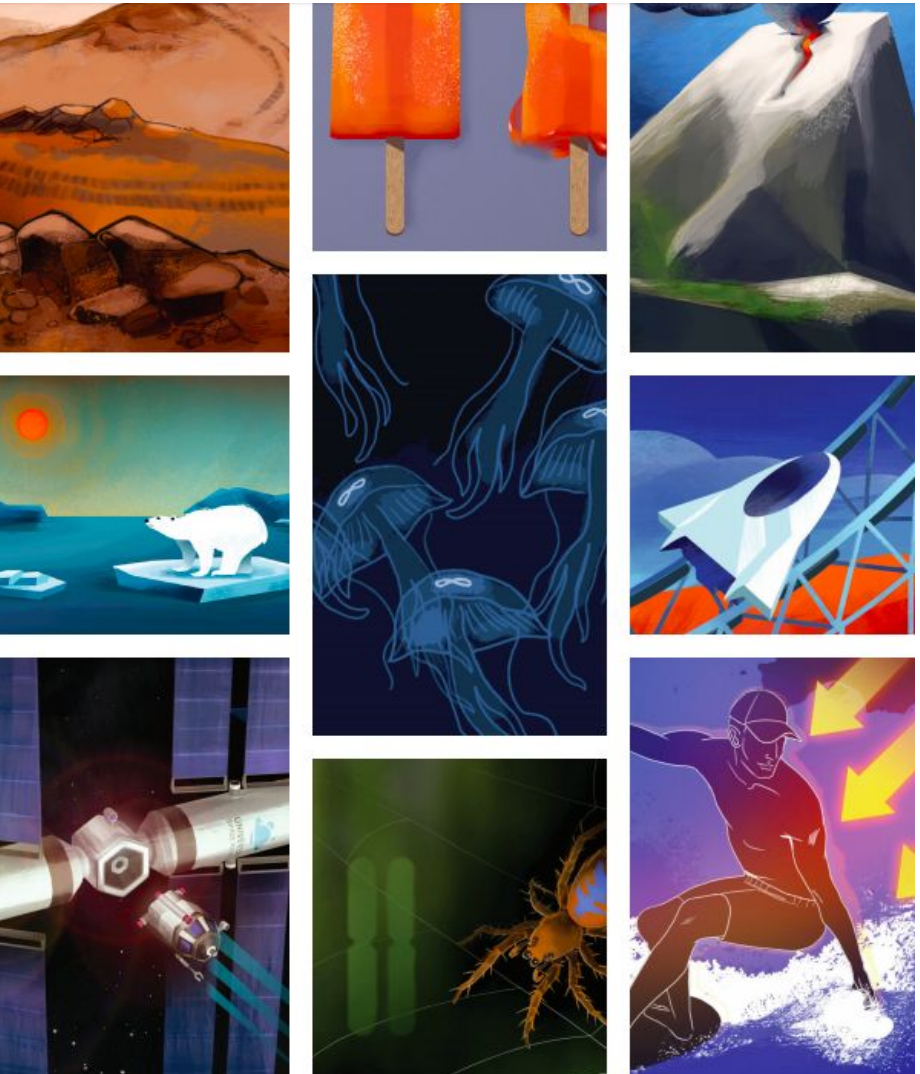
- Navigate the Amplify Science curriculum.
- Understand the program's multimodal approach and instructional materials.
- Apply program essentials to prepare to teach an Amplify Science unit.
- Make an informed decision about which of the Amplify Science Hybrid Learning Resources will best support your students.



Day 2 Objectives

By the end of the session you will be able to:

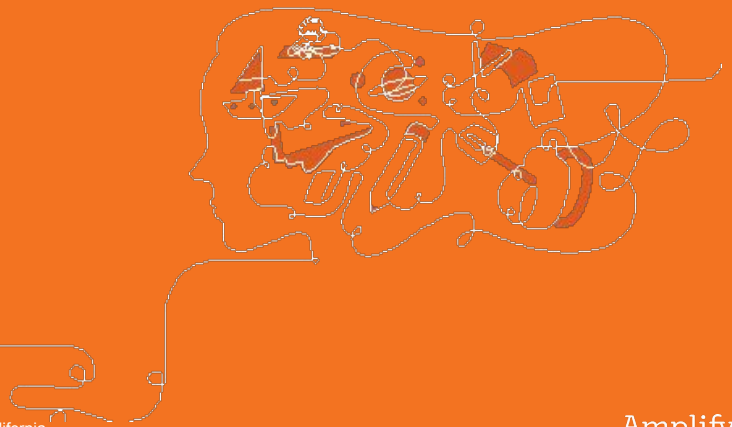
- Understand the purpose of Launch Units.
- Apply program essentials to prepare to teach an Amplify Science Launch Unit.
- Make an informed decision about which of the Amplify Science Hybrid Learning Resources will best support your students.



Plan for the day

- Experiencing the Launch Unit
- Launch Unit Components
- Planning to Teach
- Remote/Hybrid Resources
- Closing and reflection

Experiencing the Launch Unit

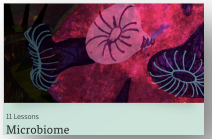


Middle School Curriculum New York City Edition

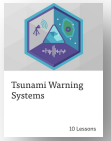
Grade 6

- Launch: Harnessing Human Energy
- Thermal Energy
- Populations and Resources
- Matter and Energy in Ecosystems
- Weather Patterns
- Ocean, Atmosphere,and Climate
- Earth's Changing Climate

Grade 7



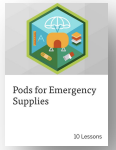
- Launch: Microbiome
- Metabolism
- Phase Change
- Chemical Reactions
- Plate Motion
- Engineering Internship: Plate Motion



- Rock Transformations
- Engineering Internship: Earth's Changing Climate

Grade 8

- Launch: Geology on Mars
- Earth, Moon, and Sun
- Force and Motion
- Engineering Internship: Force and Motion



- Magnetic Fields
- Light Waves
- Traits and Reproduction
- Natural Selection
- Evolutionary History

What is a launch unit?

- First unit of the year
- Interesting, immersive, and often surprising problem-context
- Introduces **practices** that are integral to science, such as:
  - **Argumentation**
  - **Reading**
  - **Writing**
  - **Talking about science ideas**
  - **Using models**
- Introduces **routines** such as:
  - **Active reading**
  - **Discourse routines**

Launch unit: Geology on Mars

Geology on Mars

Problem: The Universal Space Agency is investigating Mars for evidence that it was once habitable.

Role: Student Planetary Geologists

Students use models and analyze data to make an argument about whether water was involved in geologic processes that changed Mars' surface.

Unit Question

How can we search for evidence that other planets were once habitable?

Back to
LHS Amplify Science Middle School

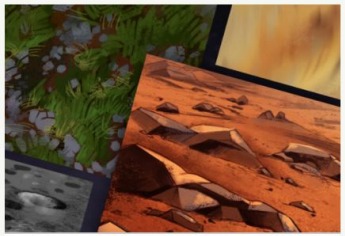
11 Lessons

Geology on Mars

What's in This Unit?

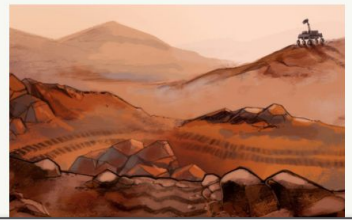
For thousands of years, people have looked up into the night sky and wondered if we are alone in the universe. As

READ FULL OVERVIEW



Chapter 1:
Comparing Earth and Rocky Planets

3 Lessons



Chapter 1 Question

What geologic process could have formed the channel on Mars?

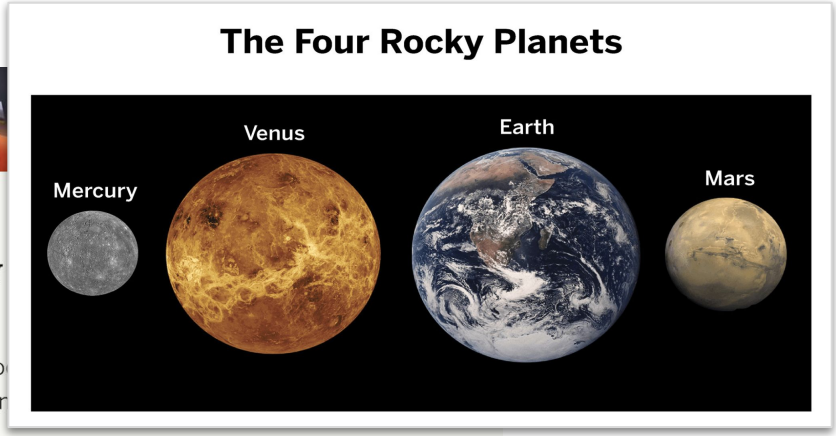
Chapter 1: Comparing Earth and Rocky

To investigate habitability on Mars, students compare Mars and other ro
channel shaped by geologic processes on Mars, comparing it to landforr

READ FULL OVERVIEW

1
1.1: Comparing Rocky Planets

2
1.2: Observing the Surfaces of Mars and Earth



Classroom Wall

Unit Question
How can we search for evidence that other planets were once habitable?

Chapter 1 Question
What geologic process could have formed the channel on Mars?

Investigation Question
How does our understanding of Earth help us learn about other rocky planets?

Key Concepts

1. Earth, Mars and other rocky planets can be thought of as systems. These systems are made up of interacting spheres than can include the geosphere, atmosphere, hydrosphere, and biosphere.

Vocabulary

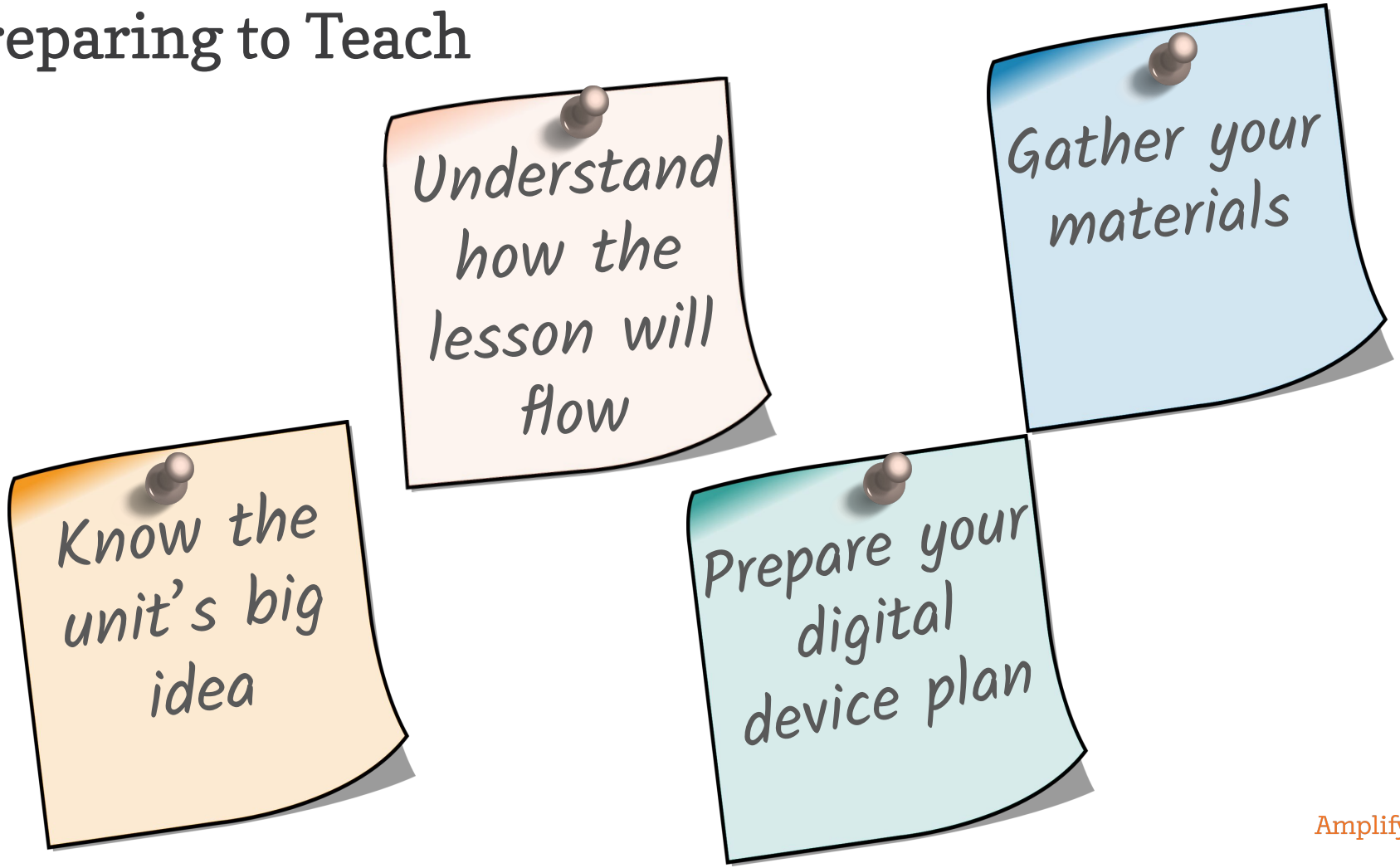
- habitable
- rocky planet
- system

Geology on Mars

Lesson 1.2: Observing the Surfaces of Mars and Earth

AmplifyScience

Preparing to Teach



Model Lesson

Lesson 1.2: Observing the Surfaces of Mars and Earth

AmplifyScience

5 MIN

Activity 1

Warm-Up

Each day, we will start with a **Warm-Up** activity to get us thinking about science ideas.

Warm-Up

In a moment, you will watch a video made by other students about the Earth system. A system is a set of interacting parts forming a complex whole.

What systems can you think of? List one or two examples of things that you think might be systems.

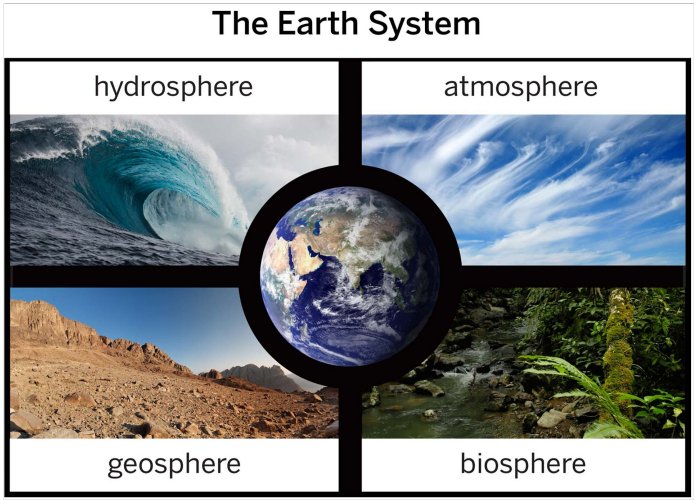
20 MIN

Activity 2

Exploring the Surface of Mars

Next, we'll watch a student-made video that was created for other students.

The video explains the answer to the question "How is Earth a **system**?"



What ideas and questions do you have about the **Earth system?**

Unit Question

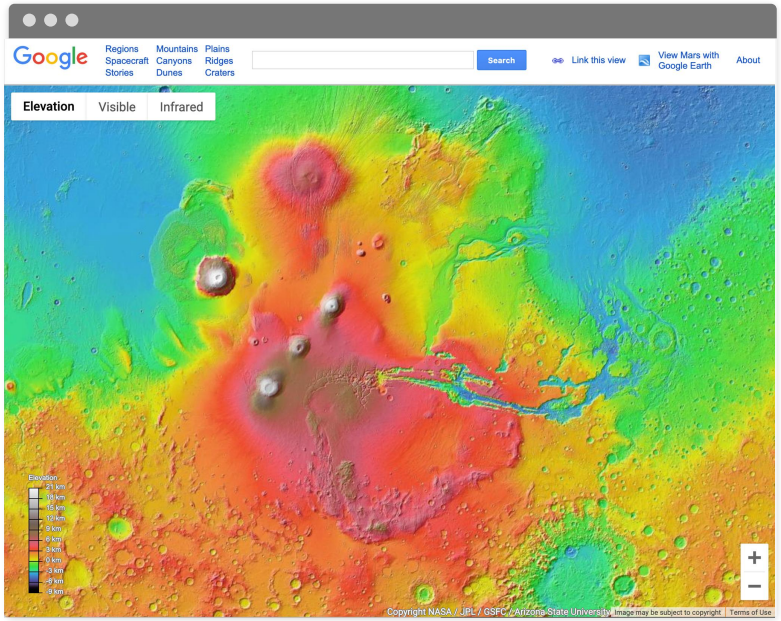
How can we search for evidence that other planets were once habitable?

Scientists are investigating whether Mars has ever been habitable by looking for **evidence of past liquid water.** Mars is currently a dry planet with no large bodies of water. Scientists have found water ice at the poles.

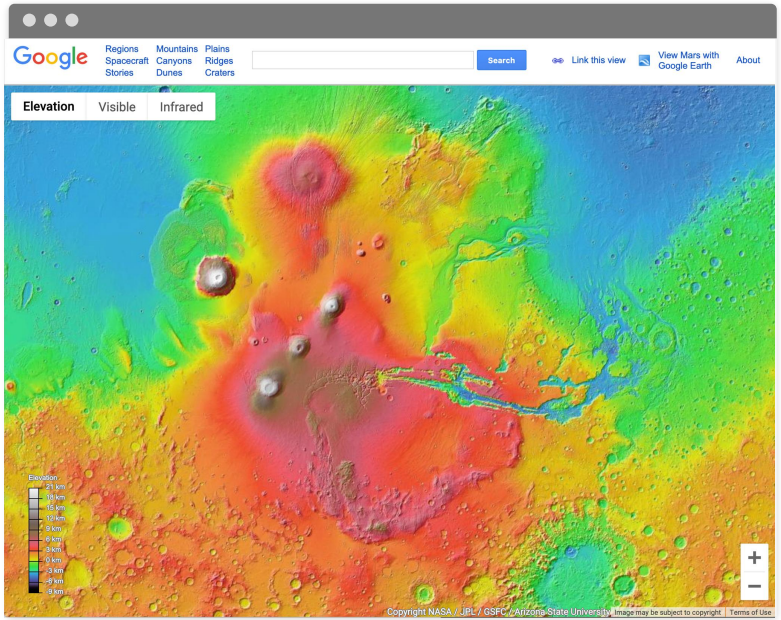
But Mars could have looked different in the past.

On Earth, **flowing water** shapes the land in particular ways. Planetary geologists are looking at **satellite images of Mars** for similar features. This can be used as evidence that liquid water once flowed on Mars.

We'll be examining images of Mars to look for **evidence of past liquid water**.



Satellites, landers, and rovers collect information about the surface of Mars. An interactive map called **Google Mars™** allows us to see the information that's been collected.



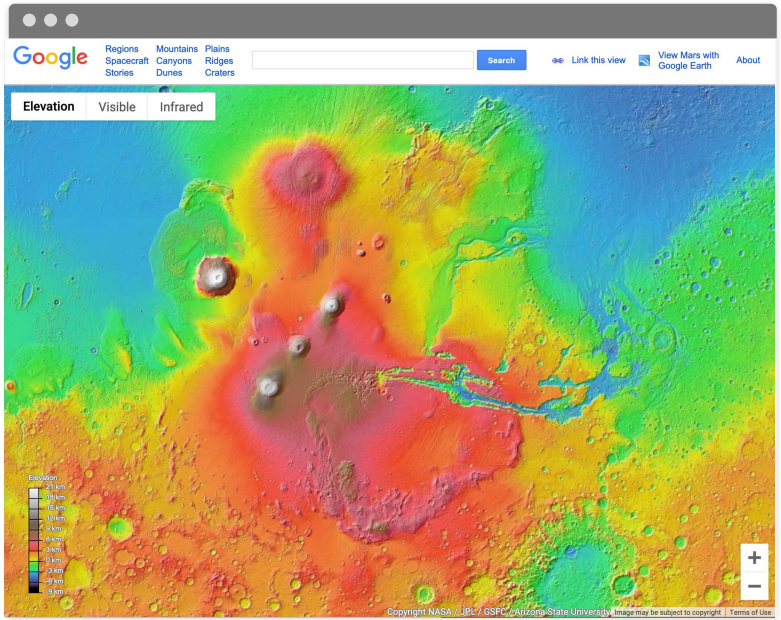
You'll use the **Elevation mode** in Google Mars™ to look for **landforms** such as mountains, plains, canyons, ridges, dunes, and craters.

Landforms are features that form on the surface of a planet.

Remember that just because there are no bodies of liquid water on Mars now does not mean that they didn’t exist on Mars in the past.

Scientists look for landforms that might have been formed by flowing water in the past.

But, even when scientists find a landform that looks like it could have been formed by flowing water, it is difficult to be certain.



On Mars, there are many volcanoes that have erupted in the past. **Flowing lava can change the shape of the land in ways that are similar to flowing water.**

You'll use Google Mars™ to look for **landforms** that could have been formed by **flowing water** or **flowing lava.**

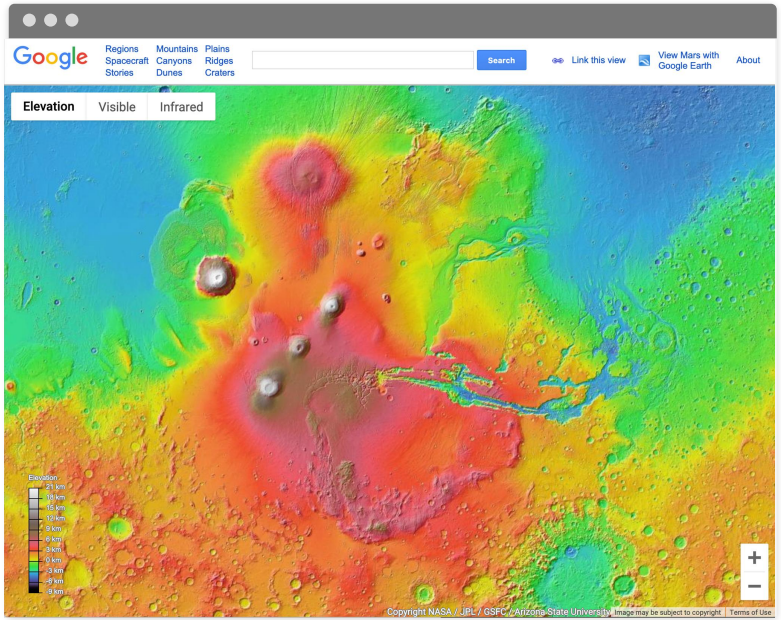
Exploring the Surface of Mars

Exploring Google Mars™

1. With your partner, use Google Mars™ to explore landforms that could have been formed by flowing water or flowing lava.

2. Share what you find with your partner, using the following sentence starters.

- I think this landform was formed by . . .
- I think this because . . .



What kinds of landforms did you find while exploring Google Mars™?

Do you think they were formed by **flowing water** or **flowing lava?**

Vocabulary

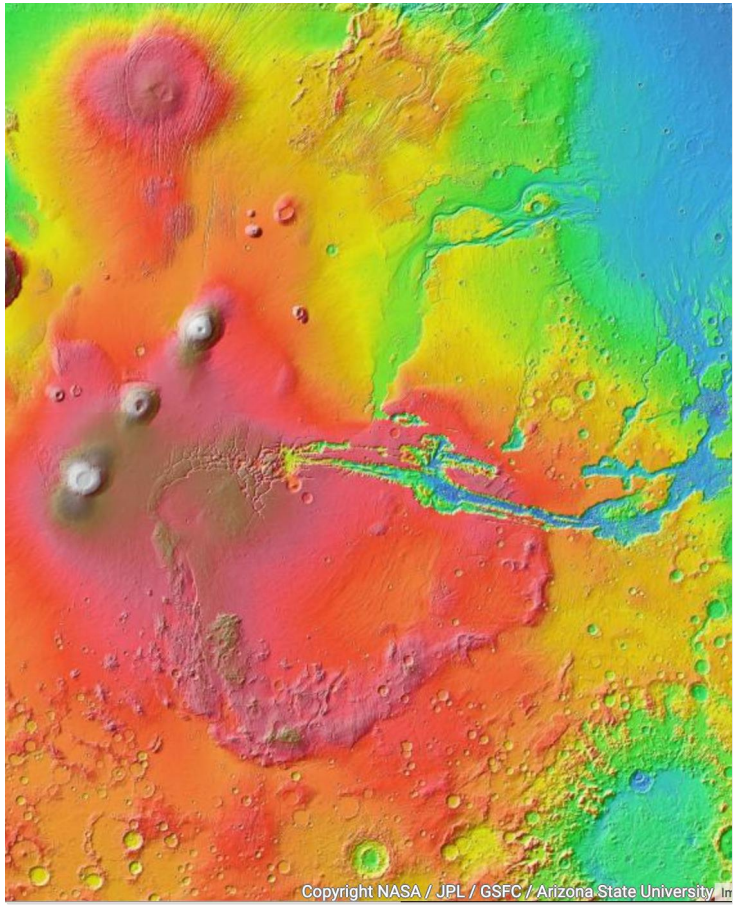
landform

a feature that forms on the surface of a planet, such as a mountain, channel, or sand dune

5 MIN

Activity 3

Introducing the Channel on Mars



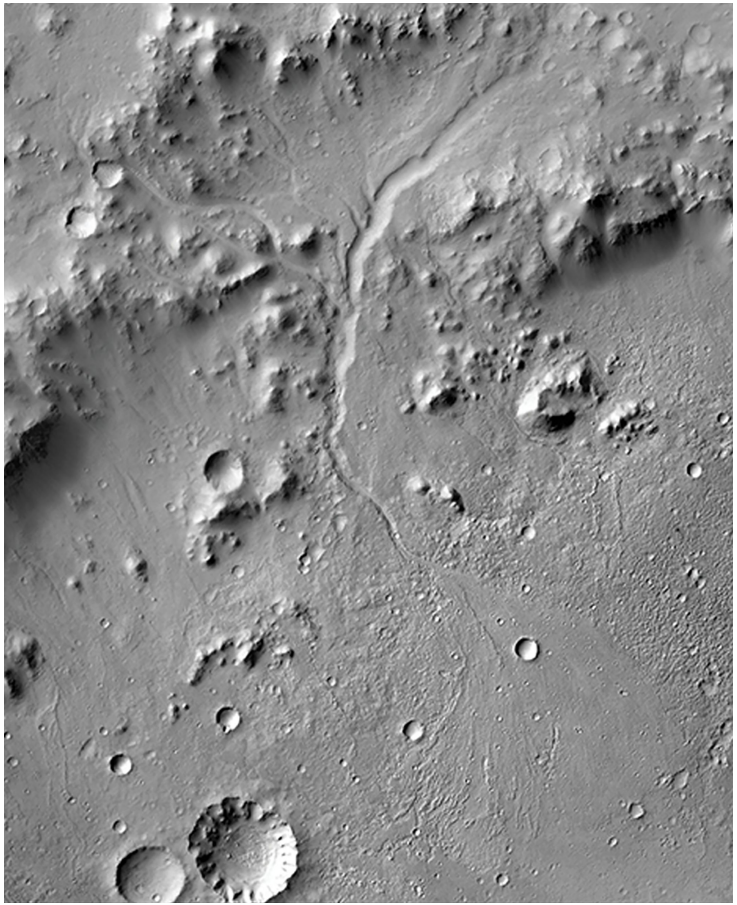
We've been exploring landforms on Mars.

There's a specific landform we'll pay special attention to in this unit: a **channel.**

Vocabulary

channel

a long, narrow groove that forms where water, lava, or other liquid flows

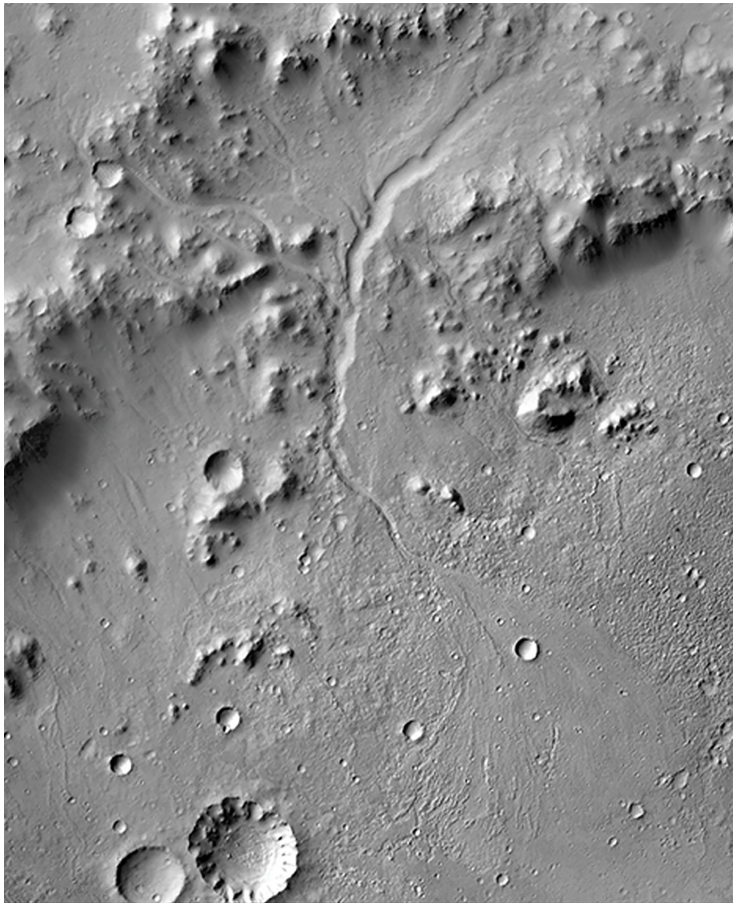


This is a **channel** that geologists found on the surface of Mars.

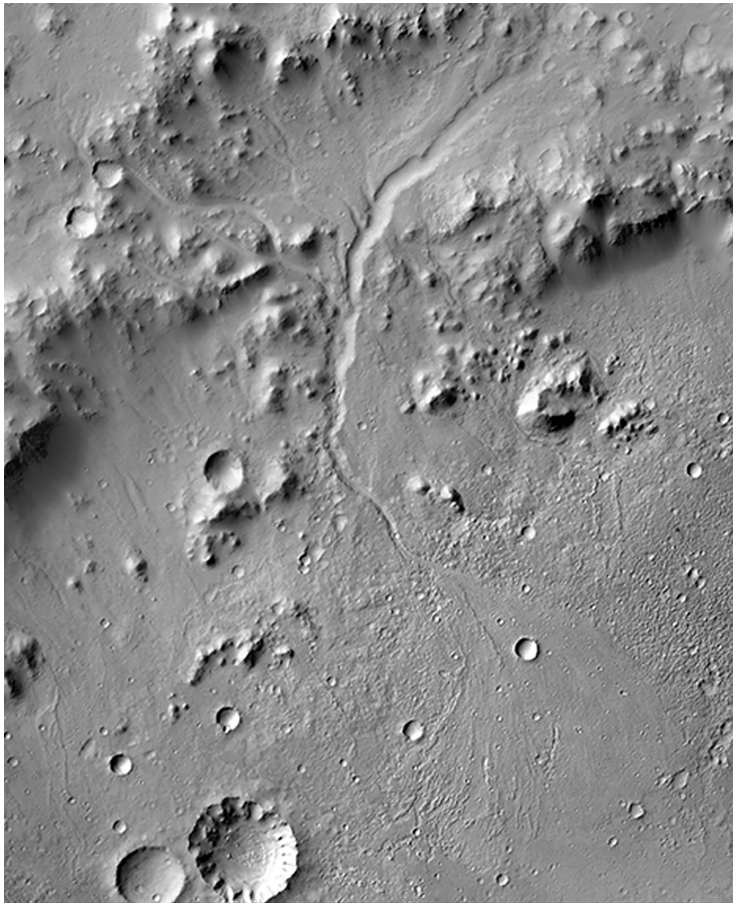
It could provide evidence that Mars once had flowing water—a key condition for life to exist.

Chapter 1 Question

What geologic process could have formed the channel on Mars?



What are your **initial observations** of the channel on Mars?

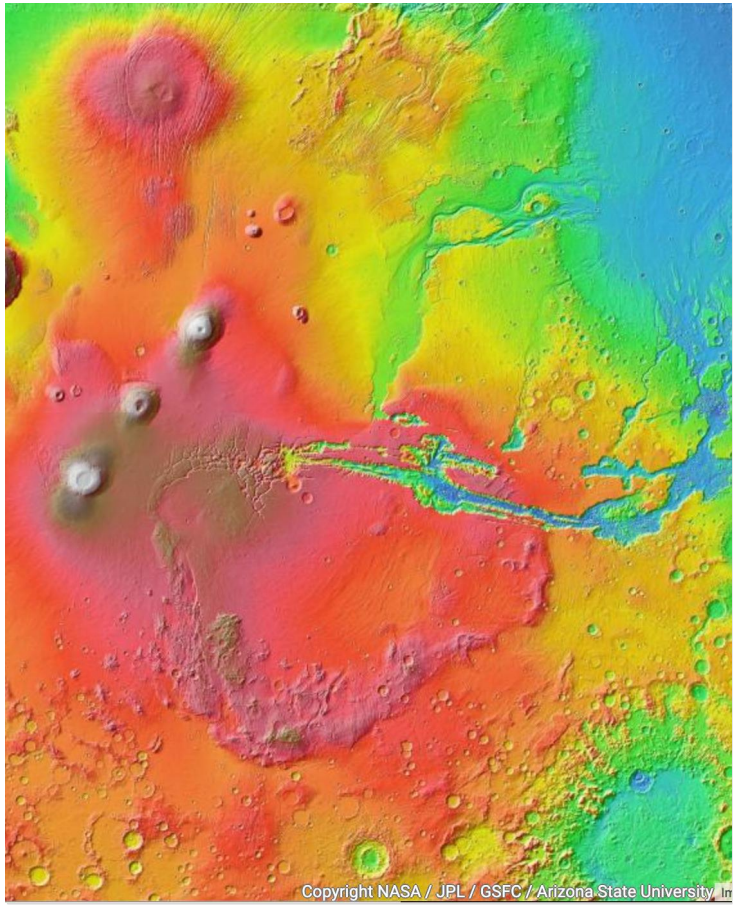


This landform was likely formed by flowing water or flowing lava. To help us figure out which, we'll learn more about what happens when **water and lava flow on Earth.**

15 MIN

Activity 4

Observing the Surface of Earth



In Google Mars™, we looked for landforms that could have been formed by flowing water or flowing lava. Flowing water and flowing lava are examples of **geologic processes.**

Vocabulary

geologic process

an event or series of events that causes changes in the geosphere, such as flowing water or flowing lava

Flowing Water

Orange River, South Africa

Flowing Lava

Lava flow near Kalapana, Hawaii, United States

Now, we'll take a closer look at the **types of landforms** formed by flowing lava and flowing water on Earth. Here are two images that show flowing water and flowing lava up close.

Geologic Processes on Earth: Landform Formed by Flowing Water

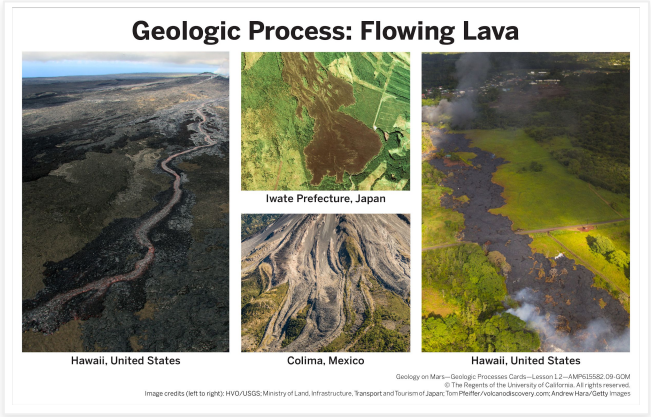
Okavango River, Botswana, Africa

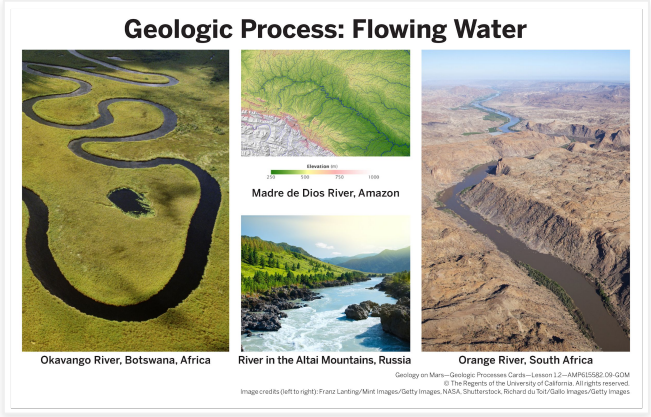
The hydrosphere covers over 70% of Earth's surface and can change the shape of Earth's geosphere in many ways. Flowing water can form many different types of landforms, including river channels.

Geologic Processes on Earth: Landform Formed by Flowing Lava

Lava flow, Hawaii, United States

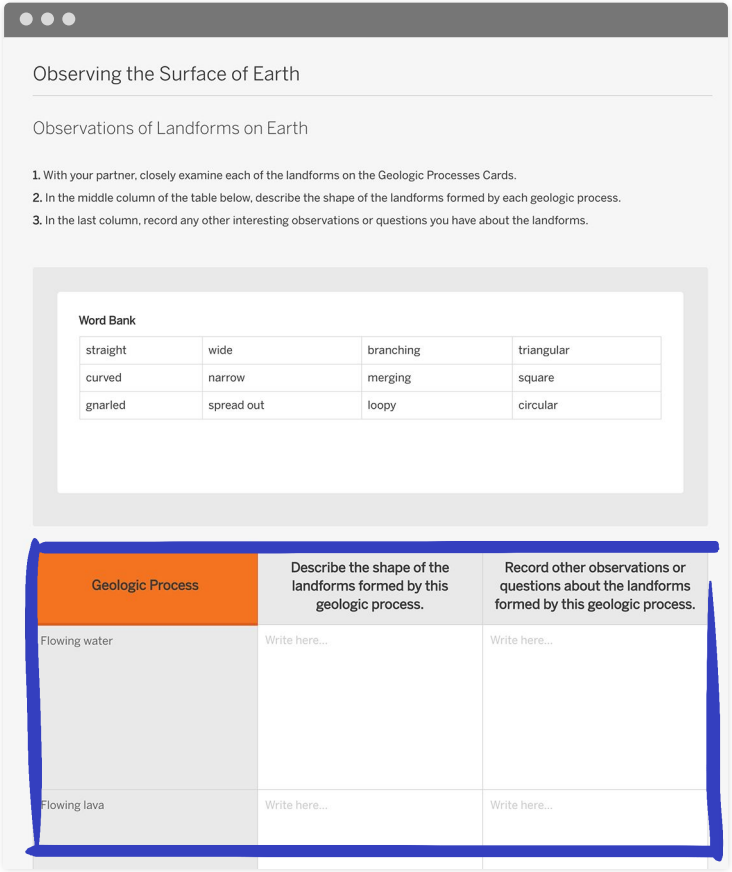
Flowing lava from a volcanic eruption can change the shape of the geosphere by forming many different landforms. This landform was formed by flowing lava and is called a lava channel.





You'll examine images of Earth taken by airplanes.

Scientists use these types of images to study how geologic processes **change Earth's geosphere** over time.



Observing the Surface of Earth

Observations of Landforms on Earth

1. With your partner, closely examine each of the landforms on the Geologic Processes Cards.
2. In the middle column of the table below, describe the shape of the landforms formed by each geologic process.
3. In the last column, record any other interesting observations or questions you have about the landforms.

Word Bank

straight	wide	branching	triangular
curved	narrow	merging	square
gnarled	spread out	loopy	circular

Geologic Process	Describe the shape of the landforms formed by this geologic process.	Record other observations or questions about the landforms formed by this geologic process.
Flowing water	Write here...	Write here...
Flowing lava	Write here...	Write here...

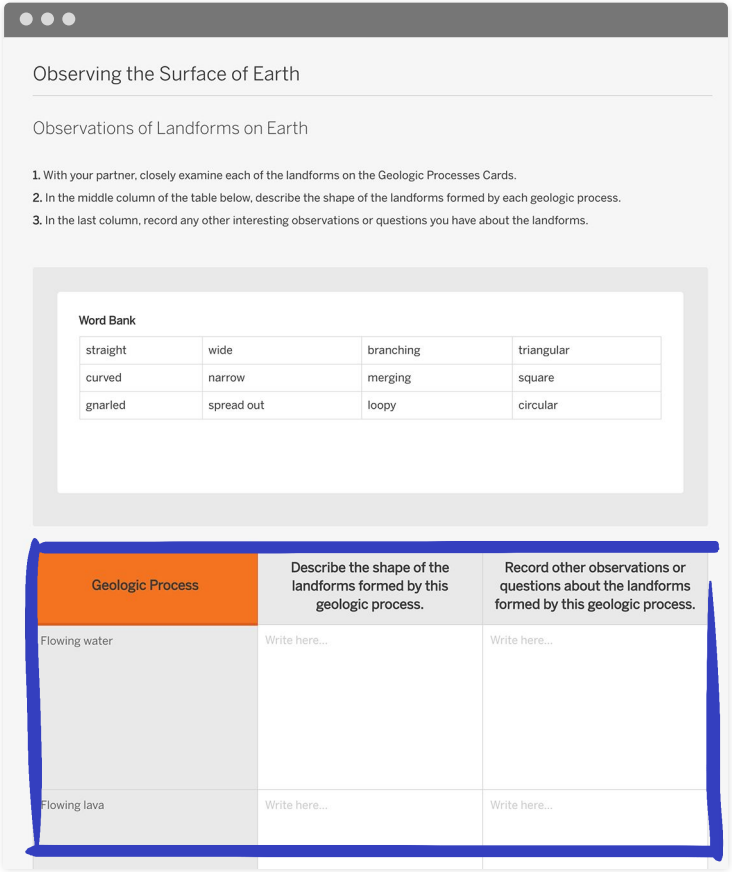
You will record observations about the **shape** of the landforms in this table.

You can also record other observations and questions you have.

Geologic process	Describe the shape of the landforms formed by this geologic process.	Record other observations or questions about the landforms formed by this geologic process.
Flowing water		
Flowing lava		

Word Bank

Straight
Wide
Branching
Triangular
Curved
Narrow
Merging
Square
Gnarled
Spread out
Loopy
Circular



Observing the Surface of Earth

Observations of Landforms on Earth

1. With your partner, closely examine each of the landforms on the Geologic Processes Cards.
2. In the middle column of the table below, describe the shape of the landforms formed by each geologic process.
3. In the last column, record any other interesting observations or questions you have about the landforms.

Word Bank

straight	wide	branching	triangular
curved	narrow	merging	square
gnarled	spread out	loopy	circular

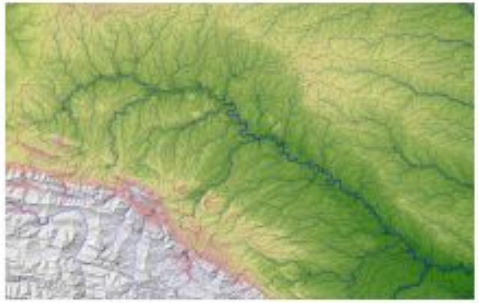
Geologic Process	Describe the shape of the landforms formed by this geologic process.	Record other observations or questions about the landforms formed by this geologic process.
Flowing water	Write here...	Write here...
Flowing lava	Write here...	Write here...

You will record observations about the **shape** of the landforms in this table.

You can also record other observations and questions you have.

Geologic Process: Flowing Water

Okavango River, Botswana, Africa



Madre de Dios River, Amazon

River in the Altai Mountains, Russia

Orange River, South Africa

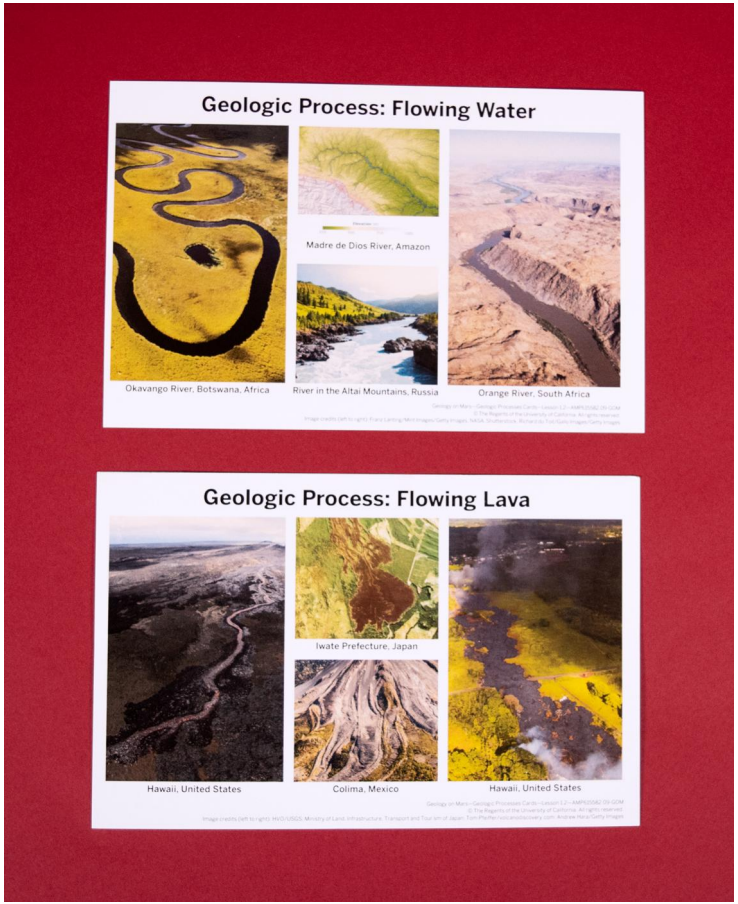
Geologic Process: Flowing Lava

Hawaii, United States

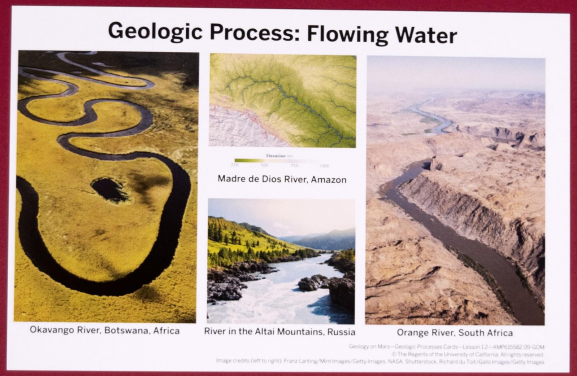
Iwate Prefecture, Japan

Colima, Mexico

Hawaii, United States



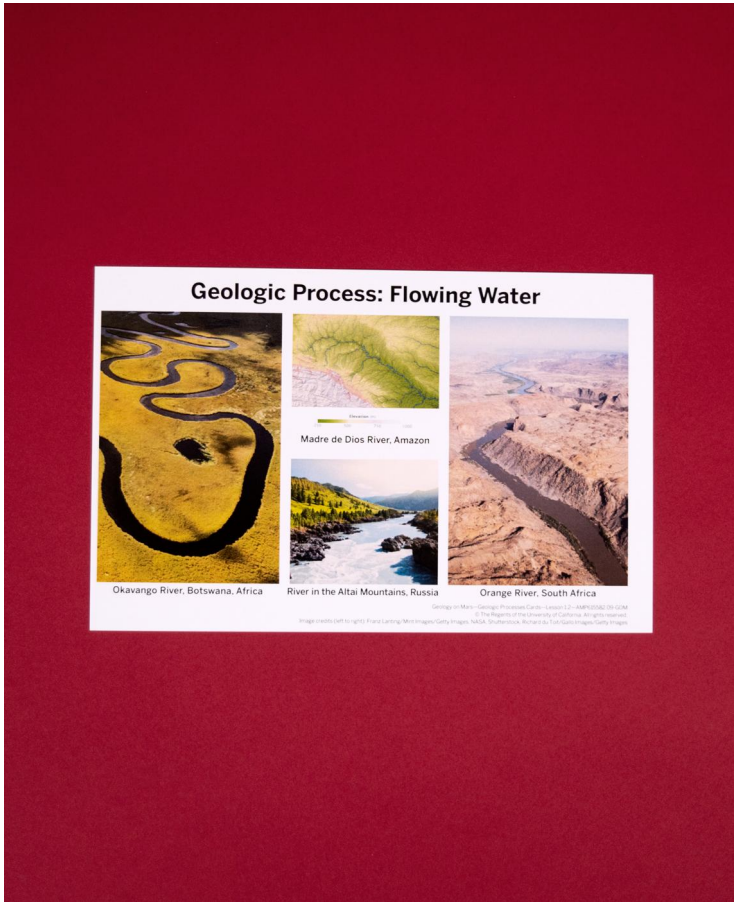
What did you notice about the images of landforms?



Some geologic processes form landforms that look similar.

How are the shapes of the landforms in the images of **flowing water** similar?

How are they different?



How are the shapes of the landforms in the images of **flowing lava** similar?

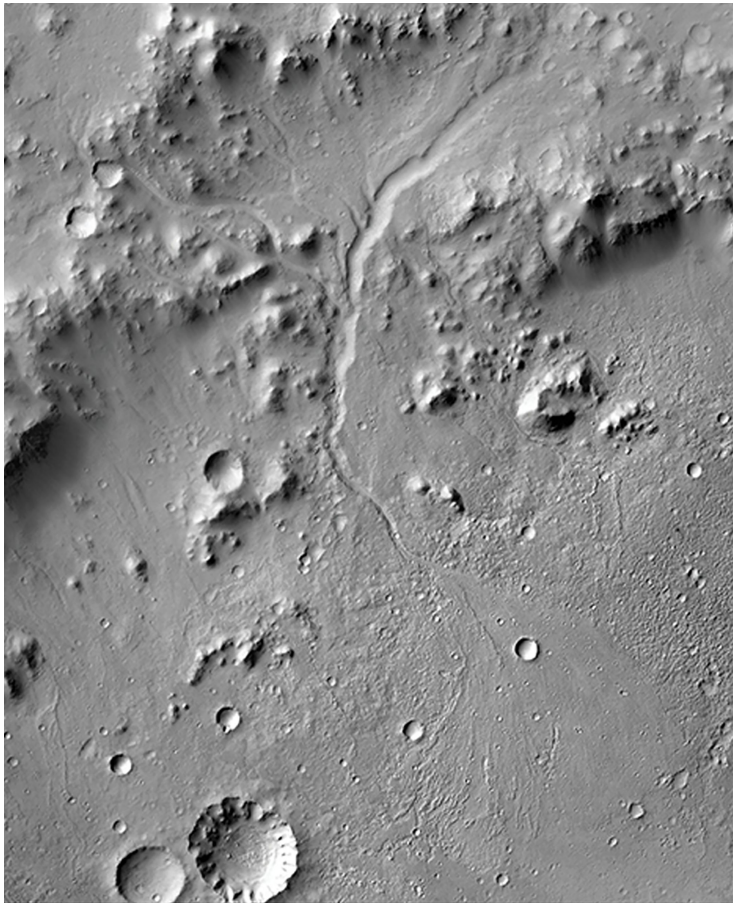
How are they different?

Key Concept

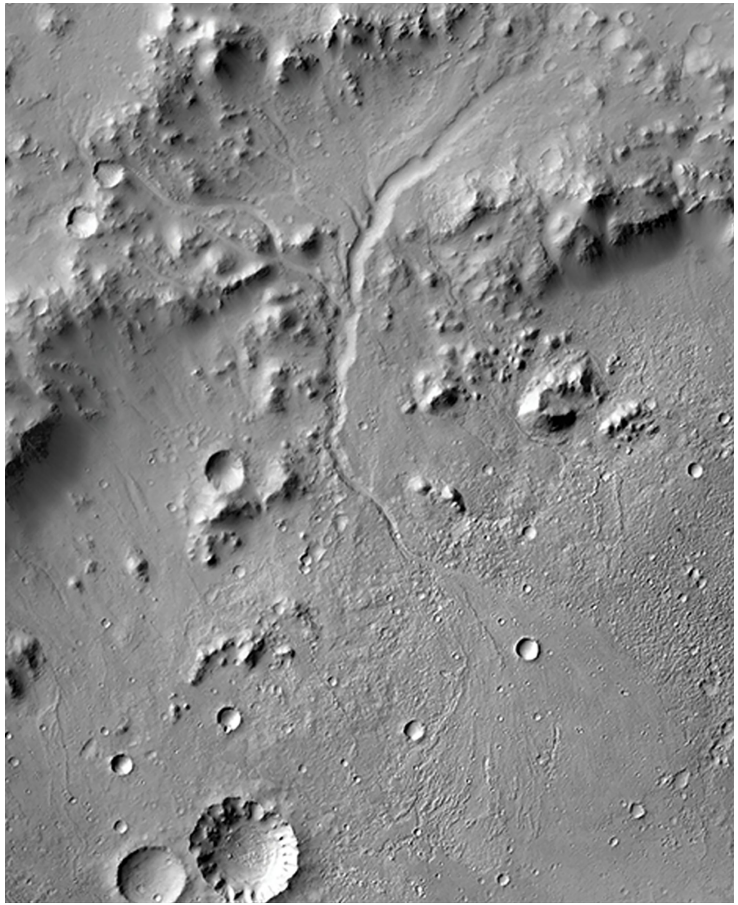
2. When landforms on different rocky planets look similar, it is evidence that they may have been formed by the same geologic process.

Chapter 1 Question

What geologic process could have formed the channel on Mars?



This landform was likely formed by **flowing water or flowing lava**. To help us figure out which, we'll learn more about what happens when water and lava flow on Earth.



Think about the processes that formed the landforms you just observed.

Does this channel on Mars look **similar** to any of the landforms you observed on Earth?

Based on the similarities between the channel on Mars and landforms that are formed by flowing lava and flowing water on Earth, **either geologic process could have caused the channel on Mars to form.**

We'll examine **more evidence** about these possible causes.

Activity 5

Family Homework Experience

For this activity, you will work to **find evidence of geologic processes.**

Then, you will record your observations and describe the evidence of a geologic process that you observed.

End of Lesson

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

Amplify.

Published and Distributed by Amplify. www.amplify.com

Classroom Wall

Unit Question
How can we search for evidence that other planets were once habitable?

Chapter 1 Question
What geologic process could have formed the channel on Mars?

Investigation Question
How does our understanding of Earth help us learn about other rocky planets?

Key Concepts

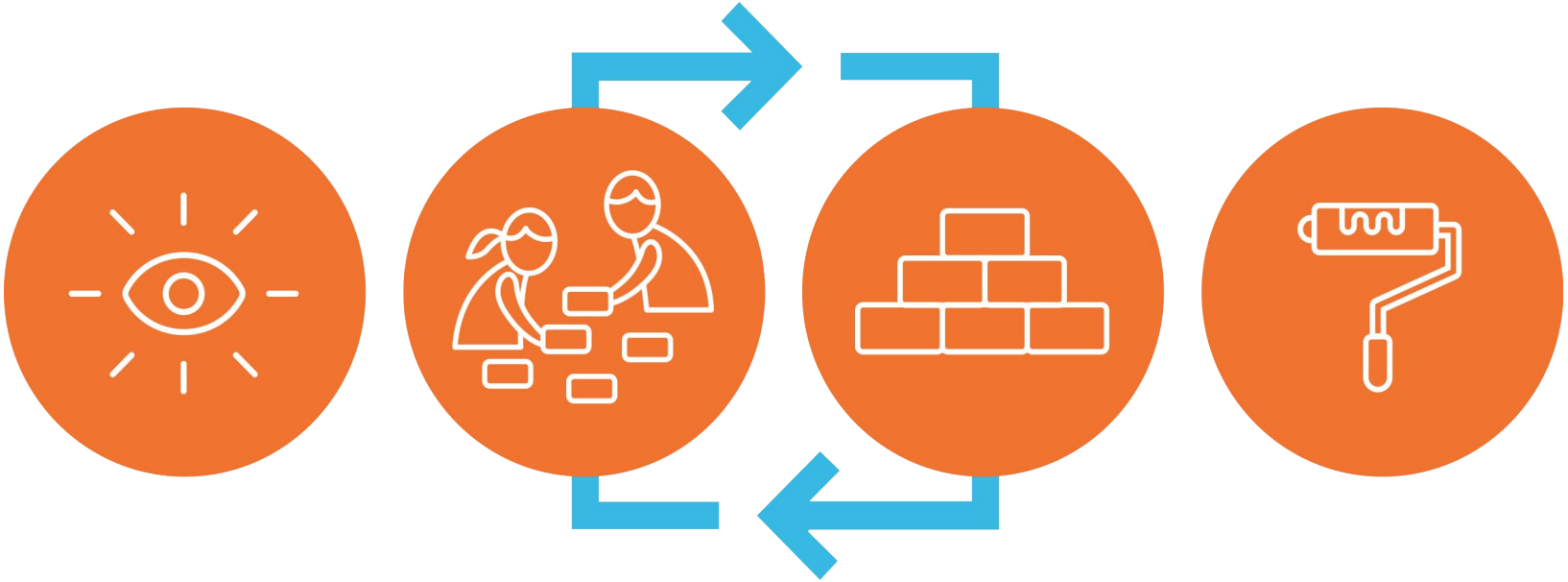
1. Earth, Mars and other rocky planets can be thought of as systems. These systems are made up of interacting spheres than can include the geosphere, atmosphere, hydrosphere, and biosphere.

2. When landforms on different rocky planets look similar, it is evidence that they may have been formed by the same geologic process.

Vocabulary

- habitable
- rocky planet
- system
- landform
- channel
- geologic process

What aspects of the Amplify Science Instructional Approach did you experience in the Launch Unit?



Introduce a phenomenon and a related problem

Collect evidence from multiple sources

Build increasingly complex explanations

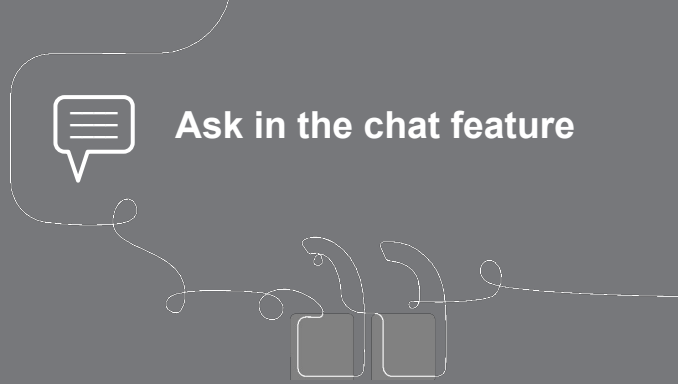
Apply knowledge to solve a different problem

Lesson Reflection

Answer in the chat feature

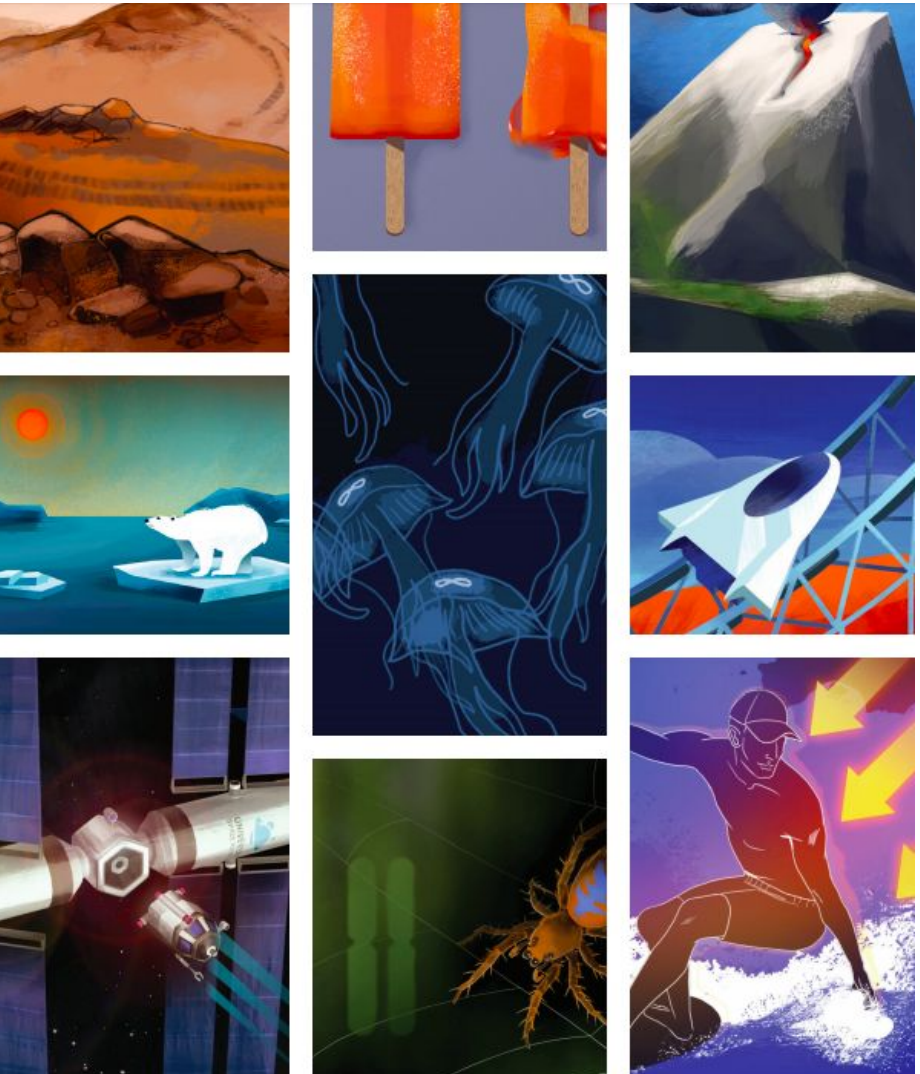
How is a launch unit lesson similar/different from a core unit lesson?

What questions do you have?



Questions?

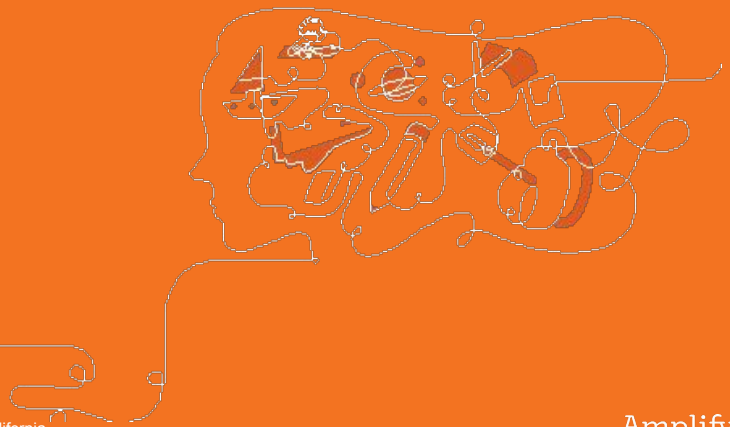
5 min break



Plan for the day

- ✔ Experiencing the Launch Unit
- Launch Unit Components
- Planning to Teach
- Remote/Hybrid Resources
- Closing and reflection

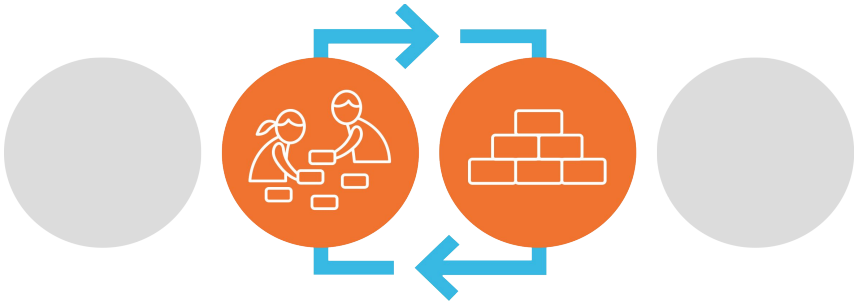
Launch Unit Components



Argumentation in Amplify Science

Goals for argumentation in Amplify Science

- To provide students an authentic opportunity to engage in the practice of argumentation
- To make clear to students the purpose of argumentation and the role it plays in building and communicating scientific knowledge
- To help students build their own knowledge through argumentation



Specific goals for argumentation in launch units

- Introduce the **practice of argumentation** in science
- Introduce **tools** that will be used throughout the year to support students in getting better at specific aspects of oral and written argumentation:
  - **Card sorts**
  - **Evidence gradient**
  - **Reasoning tool**

Completed Scientific Argumentation Wall Diagram

Scientific Argumentation

2.3

The purpose of a scientific argument is to convince others, using evidence and reasoning.

2.3

Evaluating Evidence

2.3

Scientists use relevant evidence to support a claim.

2.3

Scientific Argument

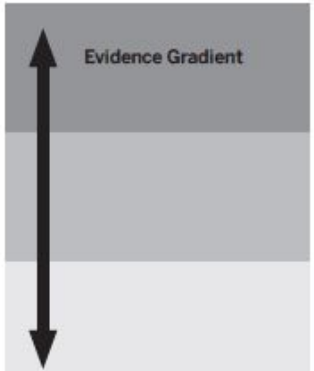
2.3

Reasoning Tool

Evidence and ideas	This matters because...	Therefore...

2.5

Evidence Gradient



2.6

Example Student Argument

A scientific argument . . .

- begins with a question.
- has a claim that proposes an answer to the question.
- has evidence that supports the claim.
- clearly explains how the evidence supports the claim (reasoning).

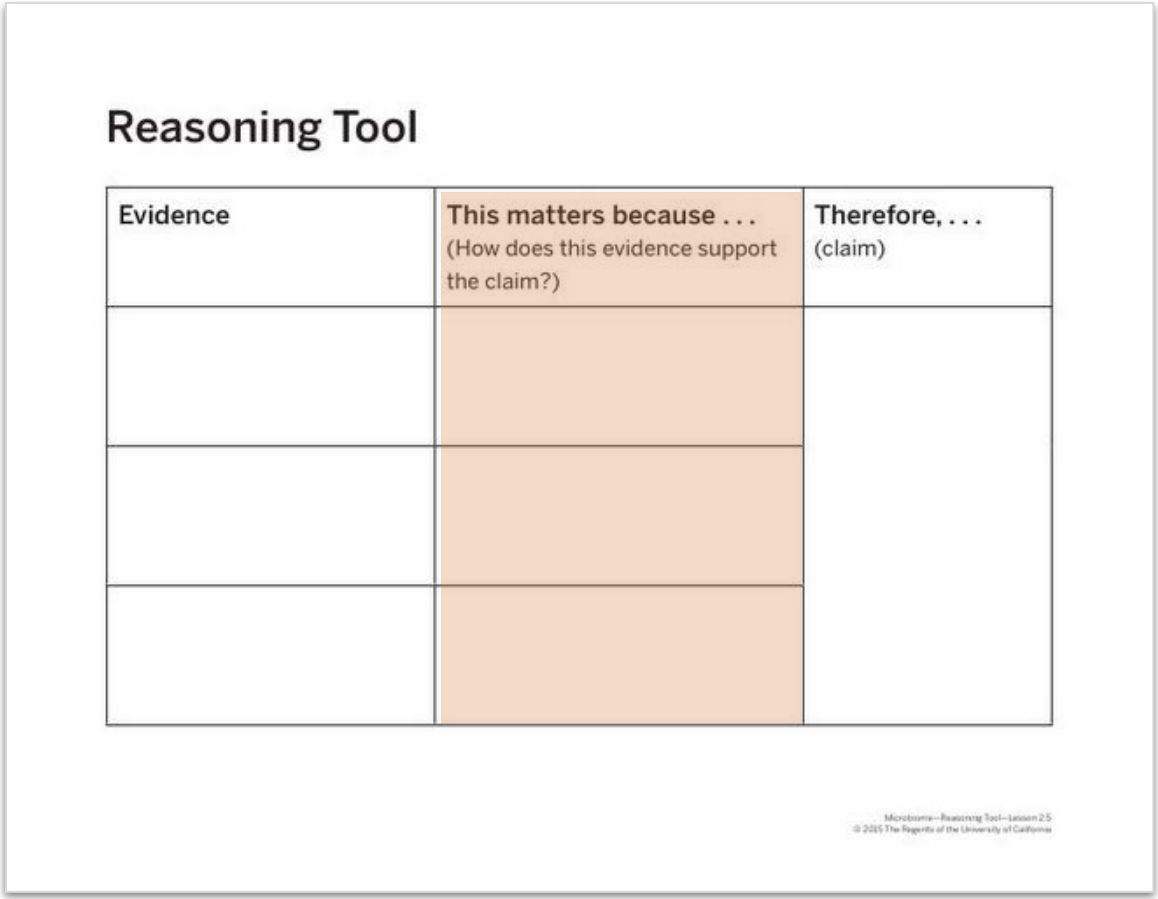
2.3

Argumentation Sentence Starters

- I think this evidence supports this claim because . . .
- I don't think this evidence supports this claim because . . .
- I agree because . . .
- I disagree because . . .
- Why do you think that?

2.3

Reasoning Tool

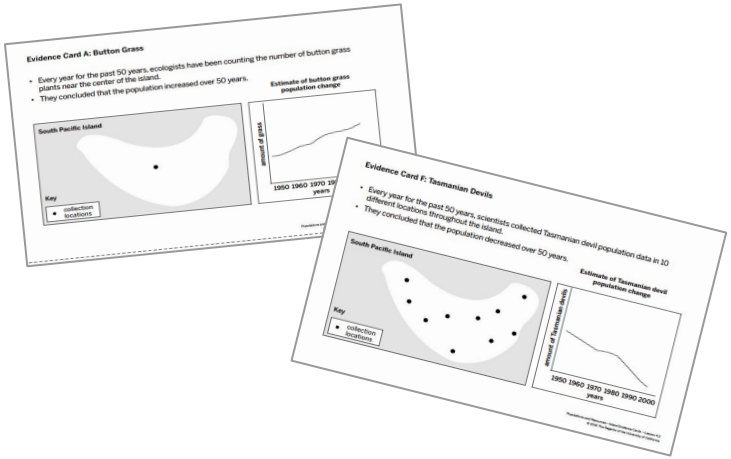


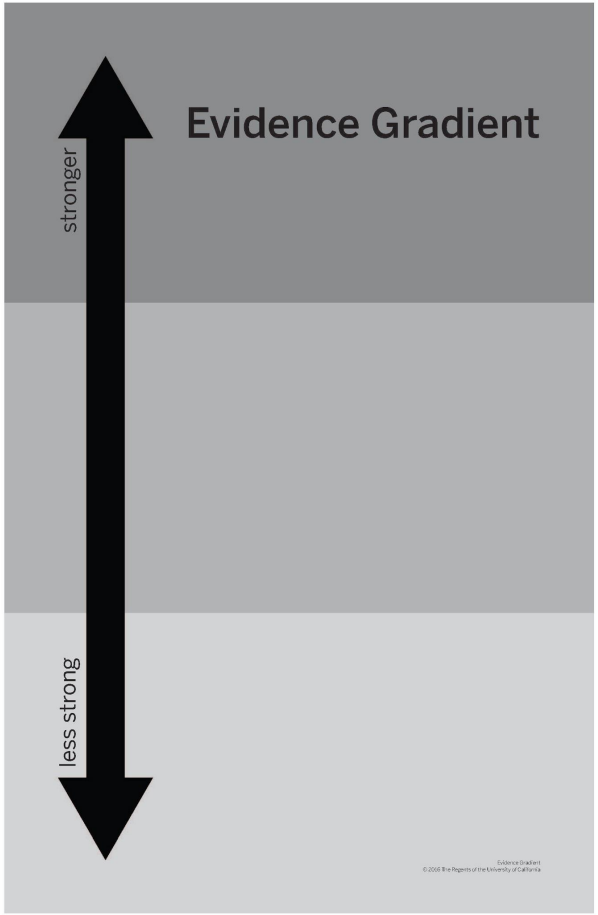
Reasoning Tool

Evidence	This matters because . . . (How does this evidence support the claim?)	Therefore, . . . (claim)

Evidence Gradient

Evidence is higher quality if it comes from a reliable source.





Introducing Argumentation, Lesson 1.3

Independent work time directions:

- Navigate to lesson 1.3
- Use the lesson materials to find out how argumentation is introduced.
- Be ready to share out.

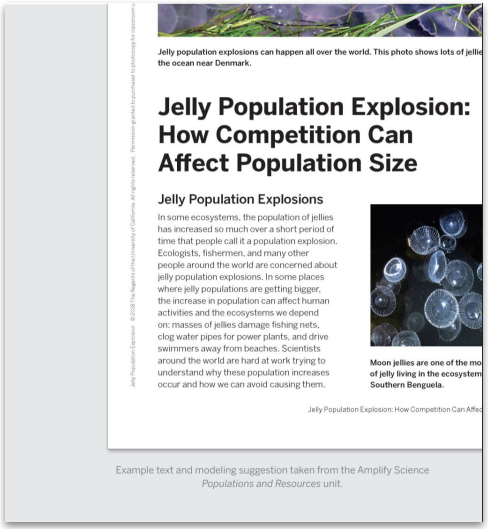
Reflection

- How is argumentation introduced? What tools/scaffolds are included to support students in developing this practice?
- Is there anything you anticipate your students will find challenging? What action will you take to support them?

Active Reading in Amplify Science

Active Reading

Teacher Modeling



Jelly population explosions can happen all over the world. This photo shows lots of jellie the ocean near Denmark.

Jelly Population Explosion: How Competition Can Affect Population Size

Jelly Population Explosions

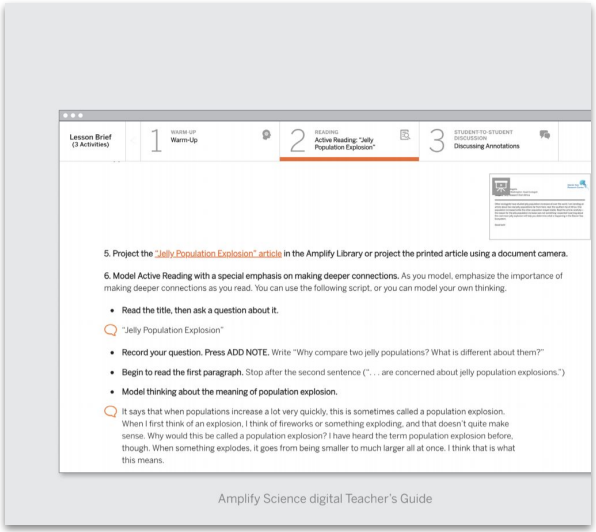
In some ecosystems, the population of jellies has increased so much over a short period of time that people call it a population explosion. Ecologists, fishermen, and many other people around the world are concerned about jelly population explosions. In some places where jelly populations are getting bigger, the increase in population can affect human activities and the ecosystems we depend on: masses of jellies damage fishing nets, clog water pipes for power plants, and drive swimmers away from beaches. Scientists around the world are hard at work trying to understand why these population increases occur and how we can avoid causing them.

Moon jellies are one of the mo of jelly living in the ecosystem Southern Benguela.

Jelly Population Explosion: How Competition Can Affec

Example text and modeling suggestion taken from the Amplify Science *Populations and Resources* unit.

Step 1: An excerpt of student text is read aloud by the teacher



Lesson Brief (3 Activities)

1 WARM-UP Warm-Up

2 READING Active Reading: "Jelly Population Explosion"

3 STUDENT-TO-STUDENT DISCUSSION Discussing Annotations

5. Project the "Jelly Population Explosion" article in the Amplify Library or project the printed article using a document camera.

6. Model Active Reading with a special emphasis on making deeper connections. As you model, emphasize the importance of making deeper connections as you read. You can use the following script, or you can model your own thinking.

- Read the title, then ask a question about it.

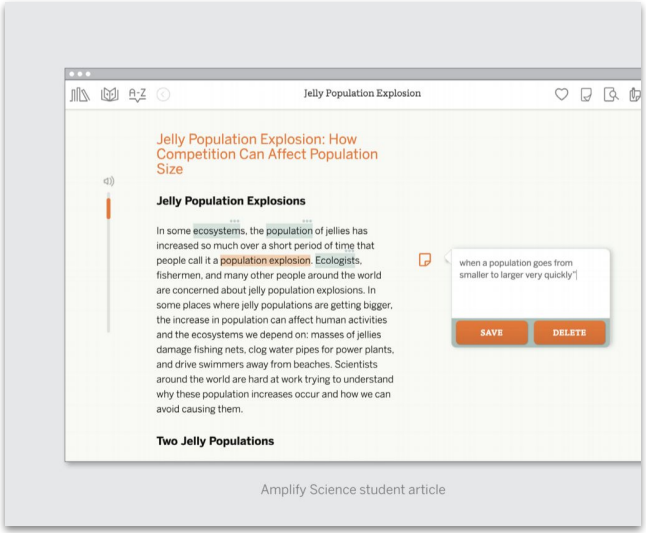
"Jelly Population Explosion"

- Record your question. Press ADD NOTE. Write "Why compare two jelly populations? What is different about them?"
- Begin to read the first paragraph. Stop after the second sentence (". . . are concerned about jelly population explosions.")
- Model thinking about the meaning of population explosion.

It says that when populations increase a lot very quickly, this is sometimes called a population explosion. When I first think of an explosion, I think of fireworks or something exploding, and that doesn't quite make sense. Why would this be called a population explosion? I have heard the term population explosion before, though. When something explodes, it goes from being smaller to much larger all at once. I think that is what this means.

Amplify Science digital Teacher's Guide

Step 2: The teacher models her thinking



Jelly Population Explosion

Jelly Population Explosion: How Competition Can Affect Population Size

Jelly Population Explosions

In some ecosystems, the population of jellies has increased so much over a short period of time that people call it a population explosion. Ecologists, fishermen, and many other people around the world are concerned about jelly population explosions. In some places where jelly populations are getting bigger, the increase in population can affect human activities and the ecosystems we depend on: masses of jellies damage fishing nets, clog water pipes for power plants, and drive swimmers away from beaches. Scientists around the world are hard at work trying to understand why these population increases occur and how we can avoid causing them.

when a population goes from smaller to larger very quickly"]

SAVE DELETE

Two Jelly Populations

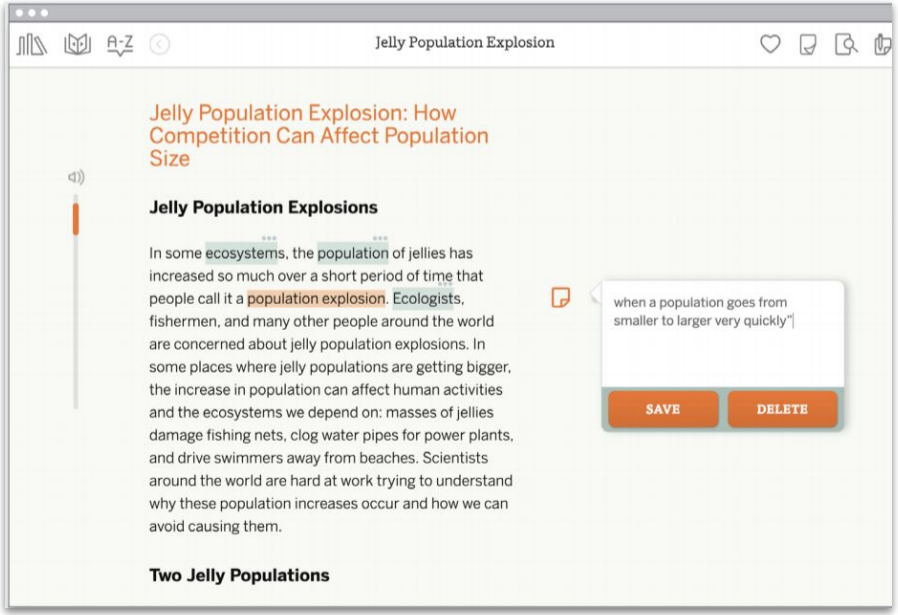
Amplify Science student article

Step 3: The teacher models annotating the text

Amplify.

Active Reading

The first read



Students individually annotate the text by taking notes, and recording questions.

Students discuss their ideas and annotations with partners and dig back into the text together.

Active Reading

The second read

Students reread a portion of the article for a particular purpose such as to examine a specific visual representation, answer a question, find evidence to support a claim or draw conclusions across texts.

Students discuss the text with a partner

Active Reading Guidelines

1. Think carefully about what you read. Pay attention to your own understanding.

2. As you read, annotate the text to make a record of your thinking. Highlight challenging words and add notes to record questions and make connections to your own experience.

3. Examine all visual representations carefully. Consider how they go together with the text.

4. After you read, discuss what you have read with others to help you better understand the text.

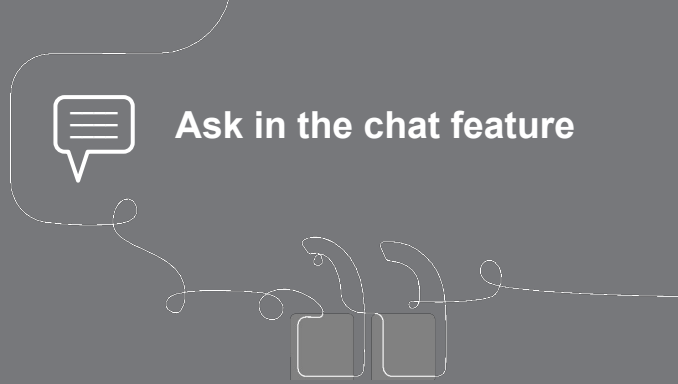
Introducing Active Reading, Lesson 2.1

Independent work time directions:

- Navigate to lesson 2.1
- Use the lesson materials to see how active reading is introduced.
  - Make sure to click on the article link to explore the digital text.
- Be ready to share out.

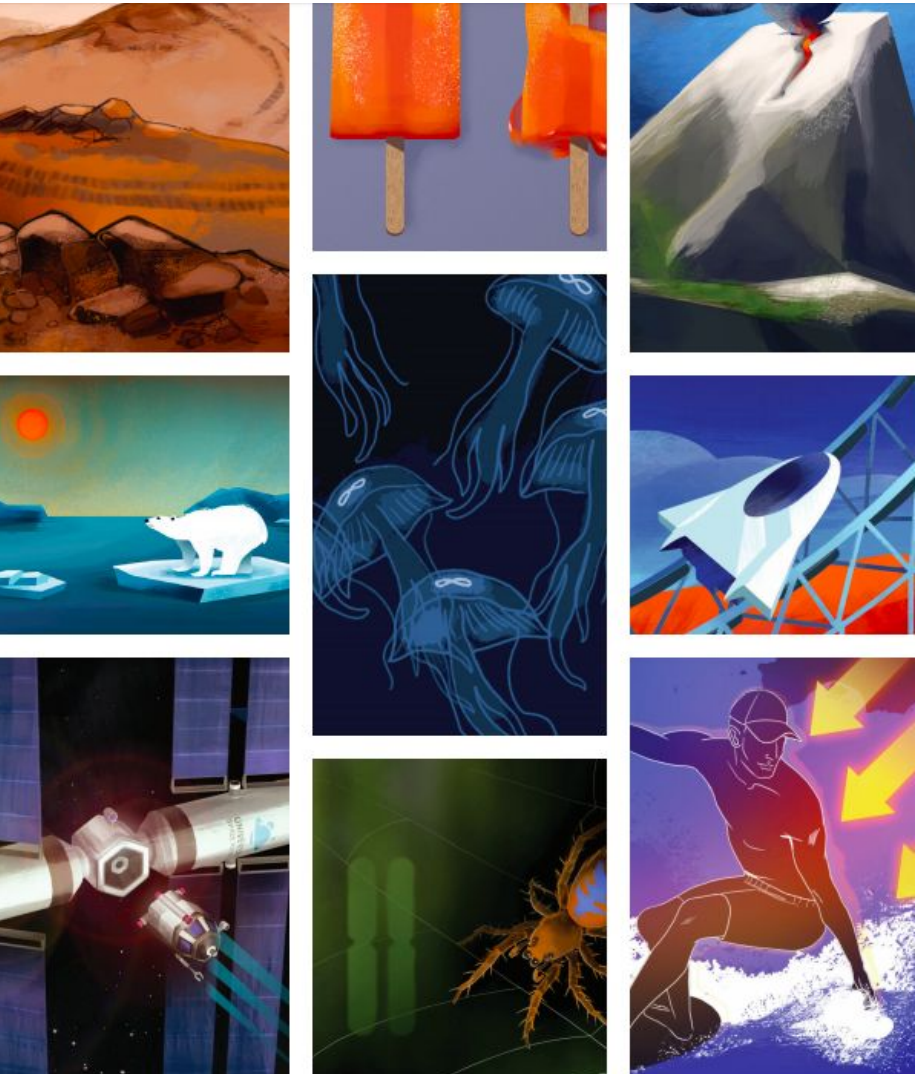
Reflection

- How is active reading introduced? What tools/scaffolds are included to support students?
- Is there anything you anticipate your students will find challenging? What action will you take to support them?



Questions?

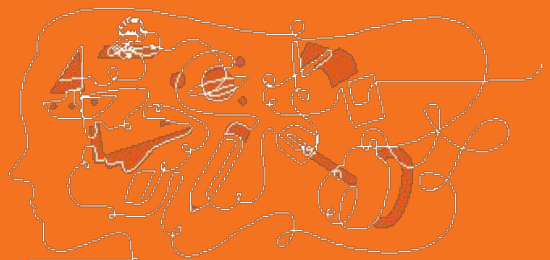
5 min break



Plan for the day

- ✔ Experiencing the Launch Unit
- ✔ Launch Unit Components
- **Planning to Teach**
- Remote/Hybrid Resources
- Closing and reflection

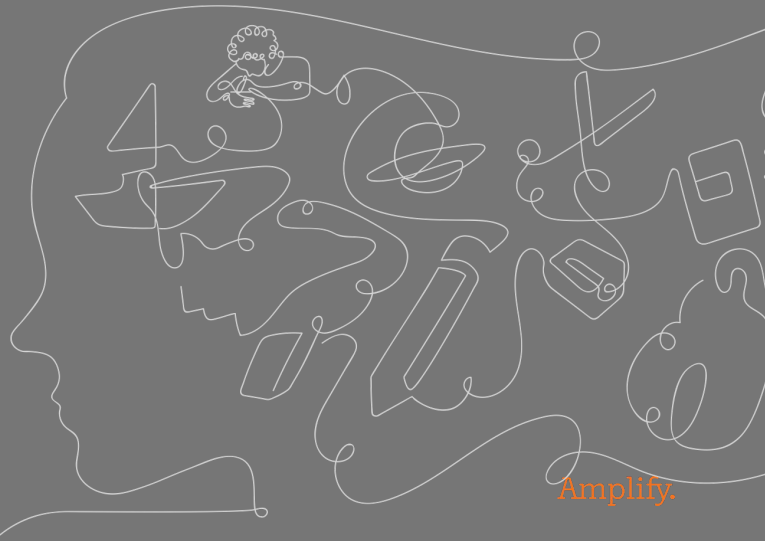
Planning to Teach



Answer in the chat feature

Group Talk

How do you typically prepare to teach a new unit?



Practice Planning a Lesson

What you need for this section:

Google or Word document

OR

Pen + paper

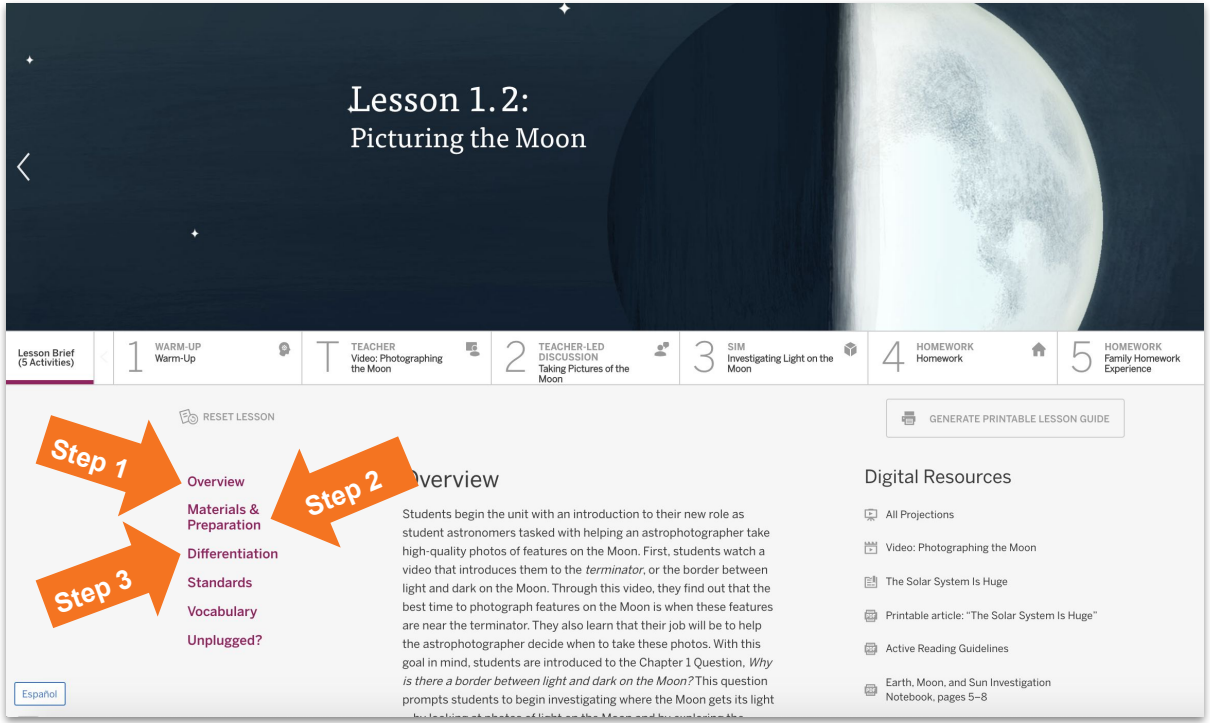
Your Turn!

Follow these 3 Easy Steps for lesson preparation

Step 1: Read the lesson overview

Step 2: Read the Materials and Preparation section

Step 3: Read the Differentiation section



Go ‘live’ to walk through lesson planning

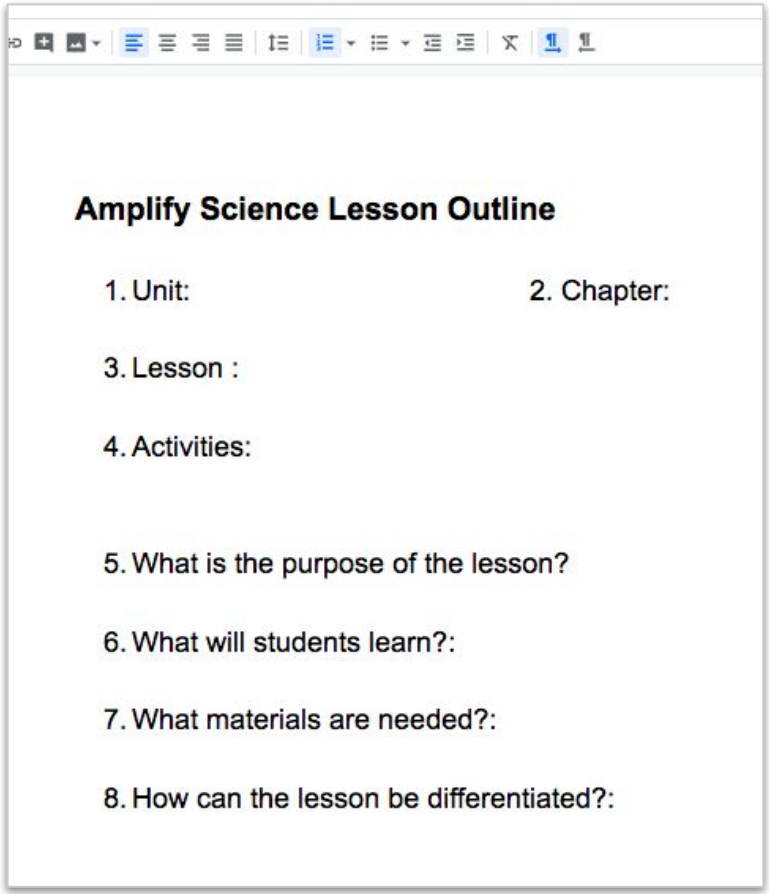
Outline your lesson

Follow these 3 Easy Steps for lesson preparation

Step 1: Read the lesson overview

Step 2: Read the Materials and Preparation section

Step 3: Read the Differentiation section



Amplify Science Lesson Outline

1. Unit: 2. Chapter:

3. Lesson :

4. Activities:

5. What is the purpose of the lesson?

6. What will students learn?:

7. What materials are needed?:

8. How can the lesson be differentiated?:

Reflect on planning a lesson

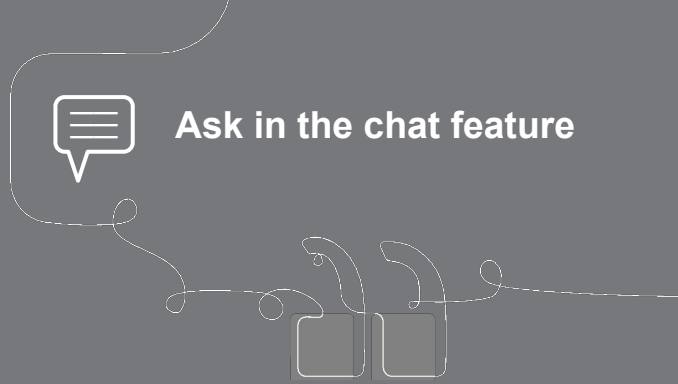
Reflecting on planning a lesson
How are students introduced to the unit's anchor phenomenon?
What are the big ideas students take away from the lesson?
What key vocabulary will students engage with?
What are a few learning modalities students engaged with during the lesson?
How are students thinking and solving problems like a scientist?

Debrief

Answer in the chat feature

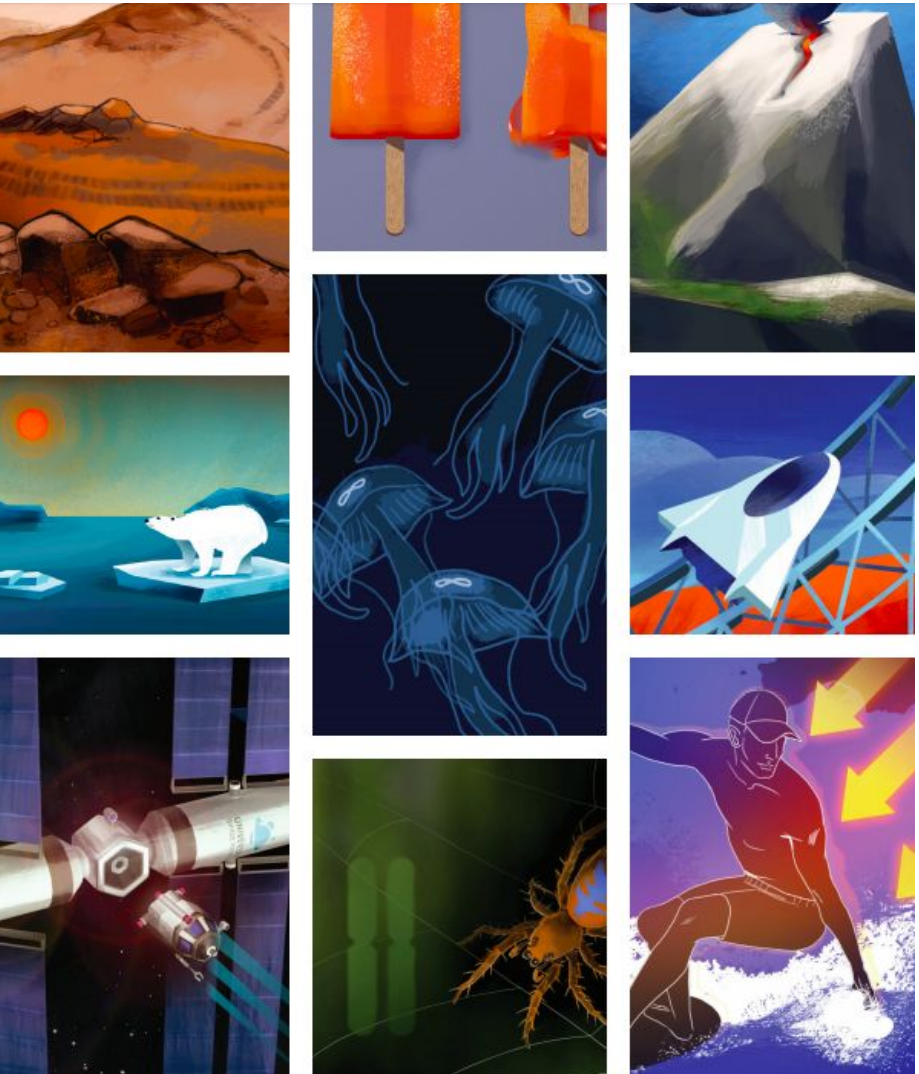
How are students thinking like scientists?

What might your students be challenged by?



Questions?

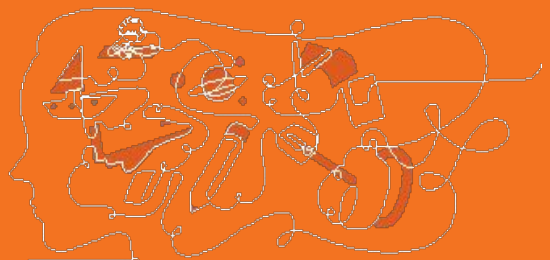
5 min break



Plan for the day

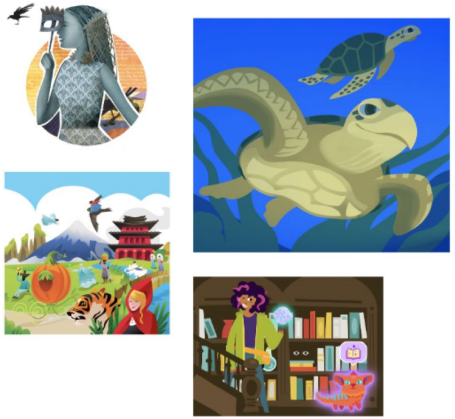
- ✔ Experiencing the Launch Unit
- ✔ Launch Unit Components
- ✔ Planning to Teach
- Remote/Hybrid Resources
- Closing and reflection

Remote/Hybrid Resources



Remote/Hybrid Learning Guidance

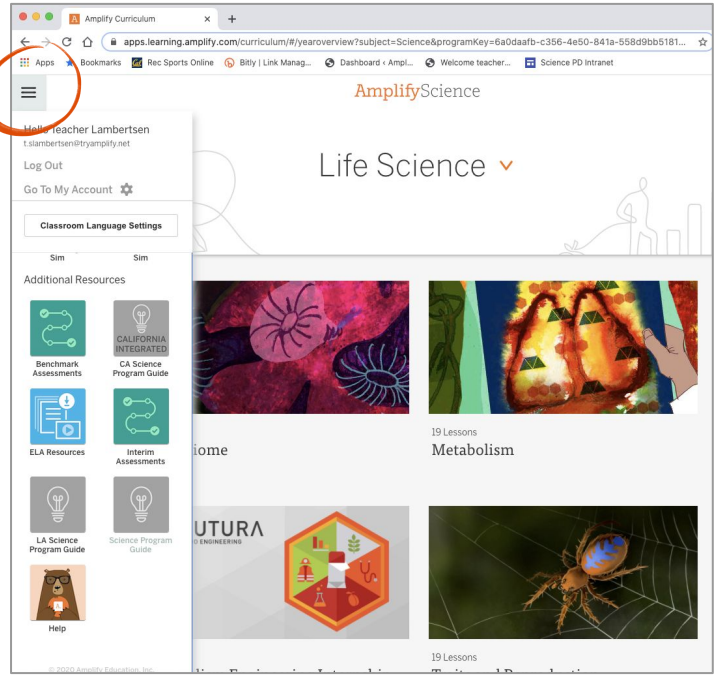
- **amplify.com/remotelearning**
  - Access resources and suggestions for using Amplify programs remotely.
- **Program Hub**
  - Access two new product features for teaching select units in various remote models.
    - **Amplify Science@Home Videos**
    - **Amplify Science@Home Units**



Amplify Science Program Hub

A new hub for Amplify Science resources

- Videos and resources to continue getting ready to teach
- Coming soon: Amplify@Home resources
- Keep checking back for updates

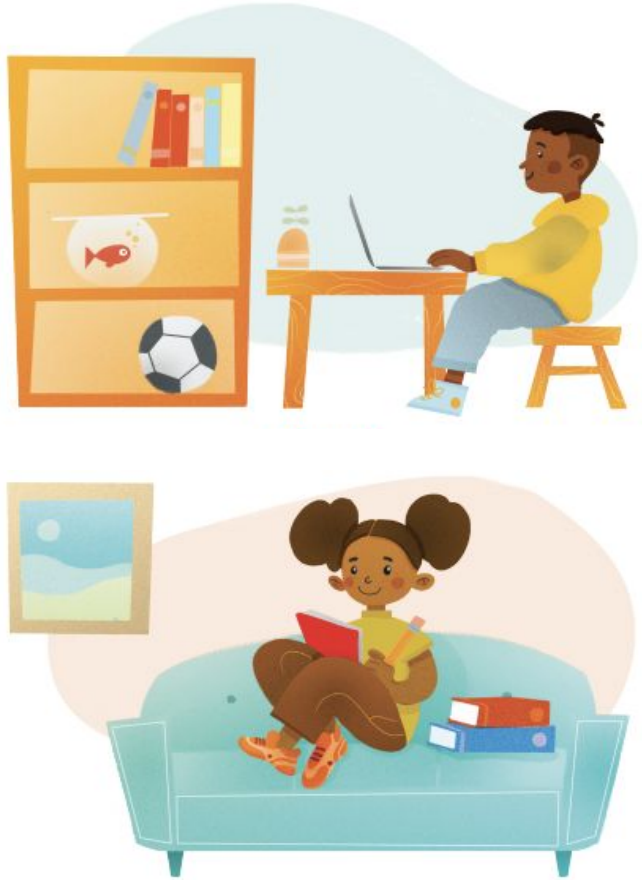


science.amplify.com/programhub

Amplify Science@Home

A suite of resources that...

- Are designed for students to complete independently
- Require no materials except a pencil and paper
- Include digital and print-only options
- Can be leveraged in a variety of remote and hybrid instructional formats



Amplify Science@Home

@Home Units

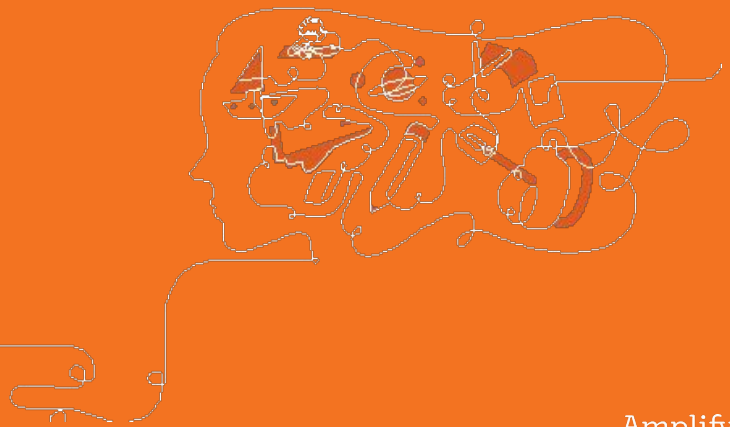
- Packet or slide deck versions of Amplify Science units condensed by about 50%

@Home Videos

- Video playlists of Amplify Science lessons, taught by real Amplify Science teachers

@Home Units

Tips for selecting and using the resource



Selecting @Home Units

You might use this resource if...

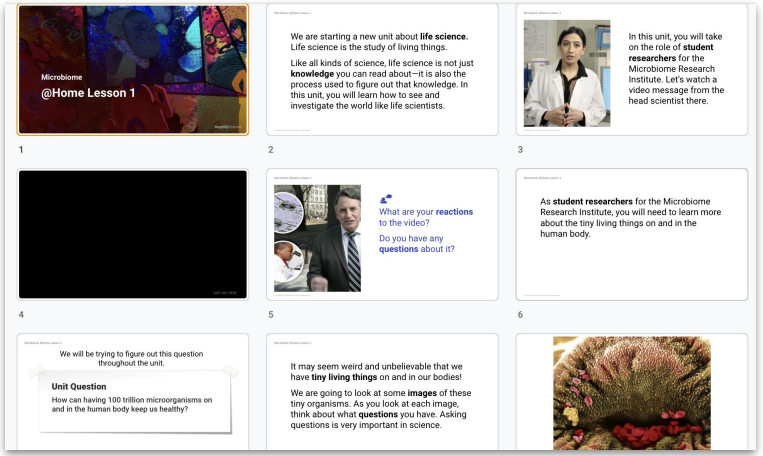
- You have **less instructional time** for science than you normally would
- You need a solution for remote, asynchronous student learning some or all of the time

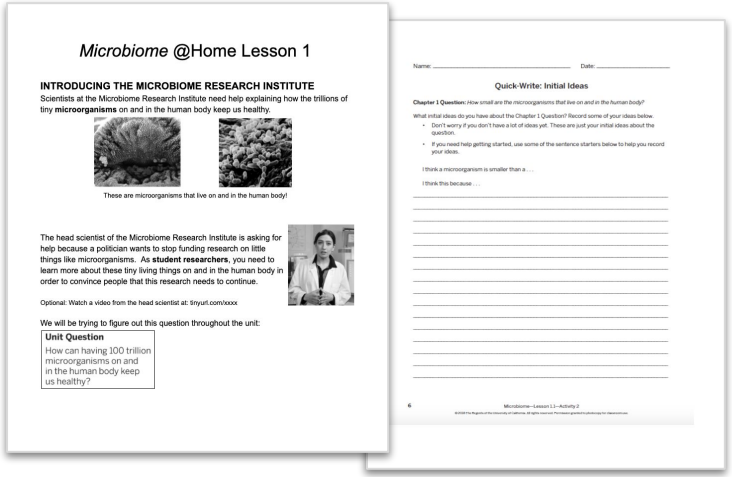
@Home Units

Two options for student access

For students with consistent access to technology at home, use **@Home Slides**

For a print-only option, use **@Home Packets**





@Home Unit resources

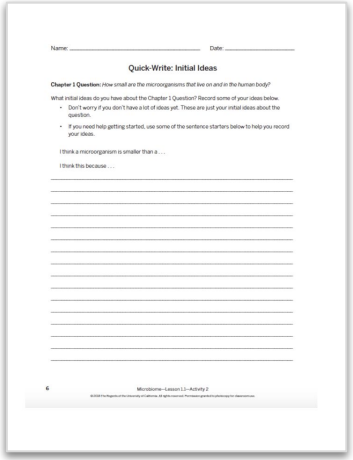
All resources are fully editable and customizable

- Teacher Overview
  - Outlines the unit and summarizes each lesson
- Family Overview
  - Provides context for families
- Student materials
  - 30-minute lessons featuring subsets of activities from Amplify Science curriculum

@Home Units

Student materials

- Brief narrative sections providing key content
- Activity instructions
- Vocabulary support
- Student sheets for writing, drawing, and diagramming
- Packets available in Word or .pdf
- Slides available in PowerPoint or .pdf


Name: _____ Date: _____

Quick-Write: Initial Ideas

Chapter 1 Question: *How small are the microorganisms that live on and in the human body?*

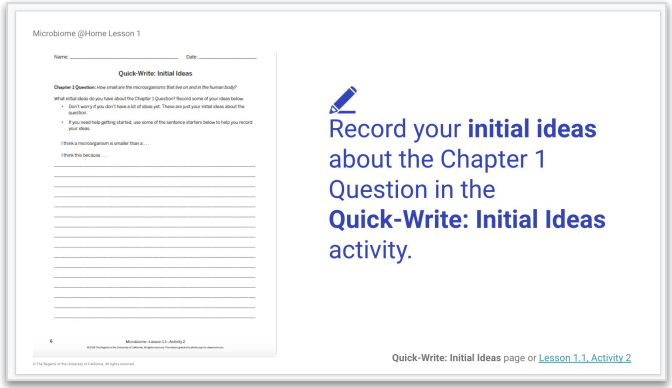
What initial ideas do you have about the Chapter 1 Question? Record some of your ideas below.

- Don't worry if you don't have a lot of ideas yet. These are just your initial ideas about the question.
- If you need help getting started, use some of the sentence starters below to help you record your ideas.

I think a microorganism is smaller than a ….

I think this because ….

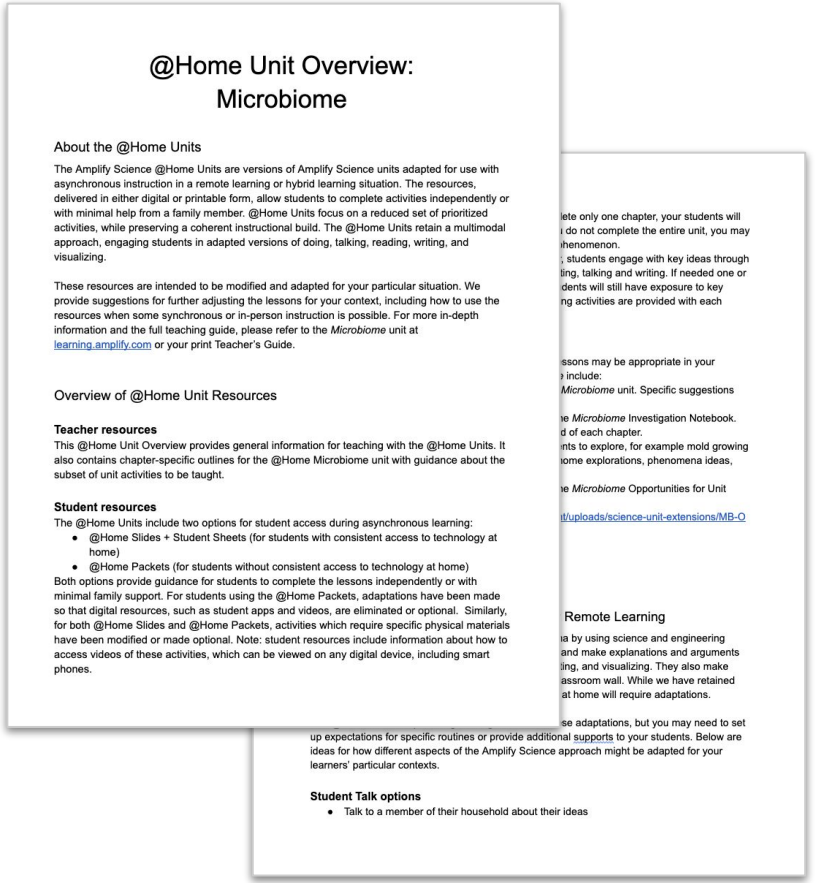
6 Microbiome–Lesson 1.1–Activity 2



@Home Units

Teacher Overview

- Instructions for establishing key routines
- Pacing suggestions for expanding or further condensing
- Assessment considerations for each chapter
- Guidance for synchronous and in-person learning for each lesson



@Home Unit Overview:
Microbiome

About the @Home Units

The Amplify Science @Home Units are versions of Amplify Science units adapted for use with asynchronous instruction in a remote learning or hybrid learning situation. The resources, delivered in either digital or printable form, allow students to complete activities independently or with minimal help from a family member. @Home Units focus on a reduced set of prioritized activities, while preserving a coherent instructional build. The @Home Units retain a multimodal approach, engaging students in adapted versions of doing, talking, reading, writing, and visualizing.

These resources are intended to be modified and adapted for your particular situation. We provide suggestions for further adjusting the lessons for your context, including how to use the resources when some synchronous or in-person instruction is possible. For more in-depth information and the full teaching guide, please refer to the *Microbiome* unit at learning.amplify.com or your print Teacher's Guide.

Overview of @Home Unit Resources

Teacher resources
This @Home Unit Overview provides general information for teaching with the @Home Units. It also contains chapter-specific outlines for the @Home Microbiome unit with guidance about the subset of unit activities to be taught.

Student resources
The @Home Units include two options for student access during asynchronous learning:

- @Home Slides + Student Sheets (for students with consistent access to technology at home)
- @Home Packets (for students without consistent access to technology at home)

Both options provide guidance for students to complete the lessons independently or with minimal family support. For students using the @Home Packets, adaptations have been made so that digital resources, such as student apps and videos, are eliminated or optional. Similarly, for both @Home Slides and @Home Packets, activities which require specific physical materials have been modified or made optional. Note: student resources include information about how to access videos of these activities, which can be viewed on any digital device, including smart phones.

Remote Learning

up expectations for specific routines or provide additional supports to your students. Below are ideas for how different aspects of the Amplify Science approach might be adapted for your learners' particular contexts.

Student Talk options

- Talk to a member of their household about their ideas

@Home Units

Family Overview

- Introduction to the unit and types of activities
- List of key ideas and vocabulary
- Suggestions for supporting students working at home

Selecting @Home Units

Different ways to use the resource

- Assign students @Home Lessons to work through independently at home
- Teach live during in-person or online synchronous time
  - Refer to Teacher Overview resources for suggestions for synchronous instruction, or
  - Revisit hands-on activities, digital tool uses, or discussion moments

@Home Units example use case

Remote Asynchronous Model: Students work flexibly through content

Monday-Thursday

Assign @Home Lessons 1-2 (Packets or Slides)

Friday

Students submit work product through email, or by writing on paper and texting the teacher a photo of their work

@Home Units example use case

Hybrid Model: Teach live during in-person time





Monday-Tuesday

Remote

Assign: @Home Lesson 1 (Packet or Slides)

Wednesday

In-person

Teach: @Home Lesson 1: Ideas for synchronous or in-person instruction

Thursday-Friday

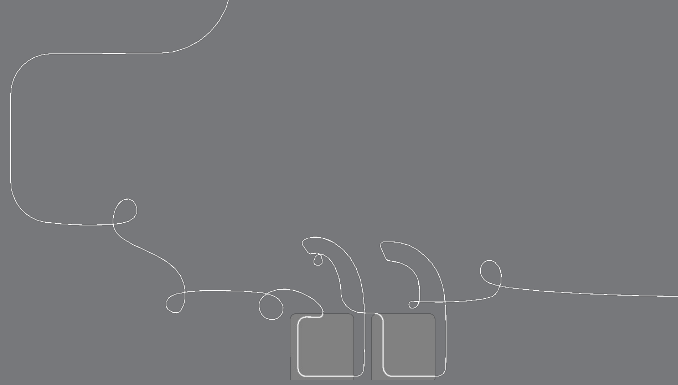
Remote

Assign: @Home Lesson 3 (Packet or Slides)

Planning to use @Home Units

- Download and read your unit's **Teacher Overview** on the Program Hub
- Plan for establishing **key routines** for talk, writing, reading, hands-on, and classroom wall references
    - (See: *Adapting the Amplify Science Approach for Remote Learning* in your unit's Teacher Overview)
- Determine **how students will access** slides or packets, and how they will **submit work**
- Consider **pacing**, including when you have synchronous science time with your students (if applicable)

Reflection

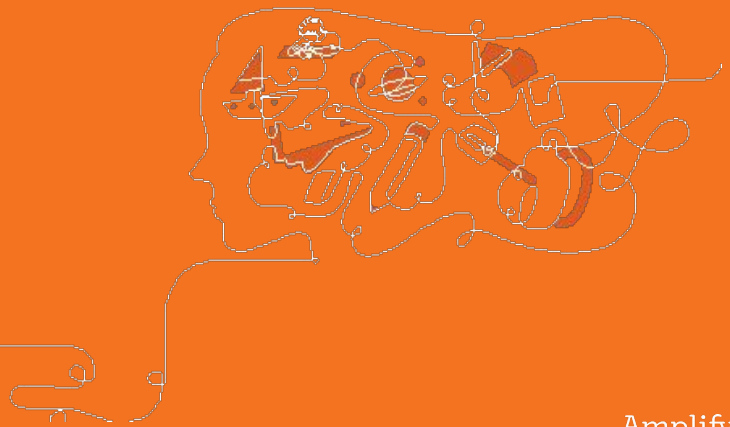


What other ideas do you have for using @Home Units?

How could you make this resource work for your learning scenario?

@Home Videos

Tips for selecting and using the resource



Selecting @Home Videos

You might use this resource if...

- Your students have **access to internet-connected devices** at home
- You have **about the same amount of instructional time** for science as you normally would
- You need a solution for remote, asynchronous student learning some or all of the time

Selecting @Home Videos

Different ways to use the resource

- Assign students video lessons to watch at home
- Teach live during in-person or online synchronous time!
  - Teach full lessons, or
  - Revisit parts of lessons in the videos students have already watched
- Watch the videos yourself as a model, then make videos of yourself teaching to send to your students

@Home Videos example use case

Hybrid Model: Teach live during in-person time

Monday

Remote

Assign: Lesson 1.1 Video

Tuesday

In-person

Teach: Lesson 1.2 live

Wednesday

Remote

Assign: Lesson 1.3 Video

Thursday

Remote

Assign: Lesson 1.4 Video

Friday

In-person

Revisit: hands-on or discourse-based activities the week's lessons

@Home Videos example use case

Remote Synchronous Model: Discussions during online class

Monday

Asynchronous

Assign: Lesson 1.1 Video

Tuesday

Asynchronous

Assign: Lesson 1.2 Video

Wednesday

Synchronous

Teach: Lead class discussion to review key ideas from 1.1 and 1.2

Thursday

Asynchronous

Assign: Lesson 1.3 Video

Friday

Asynchronous

Assign: Independent written reflection about week's lessons

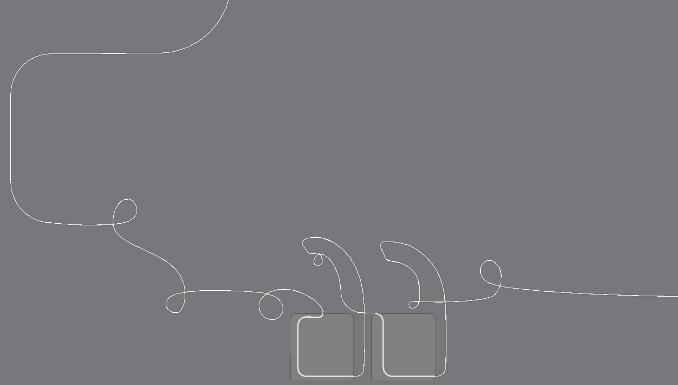
Planning to use @Home Videos

- Determine **how students will access** videos, and how they will **submit work**
- Consider **pacing**, including when you have synchronous science time with your students (if applicable)
- Plan for **student access to digital tools** and/or digital books and articles (if applicable)
- Consider how you'll **communicate with families** about this resource

Reflection

What other ideas do you have for using @Home Videos?

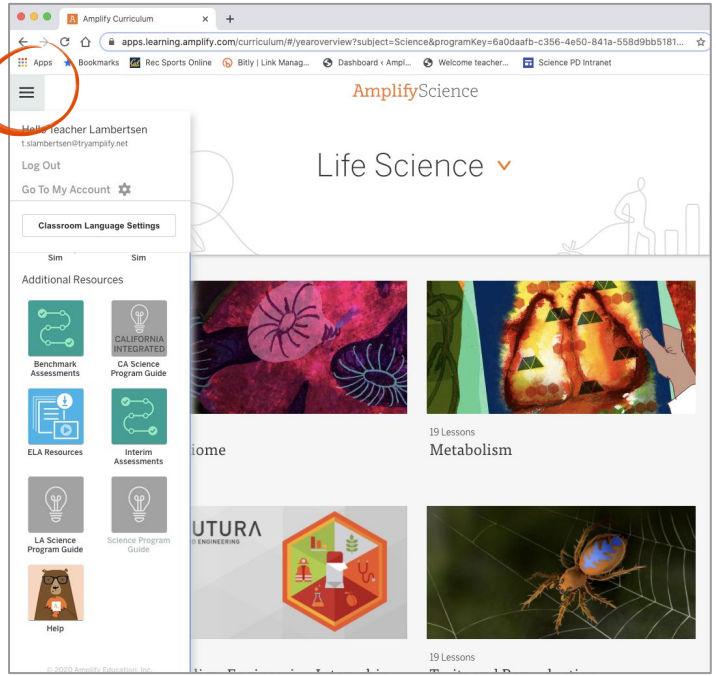
How could you make this resource work for your learning scenario?



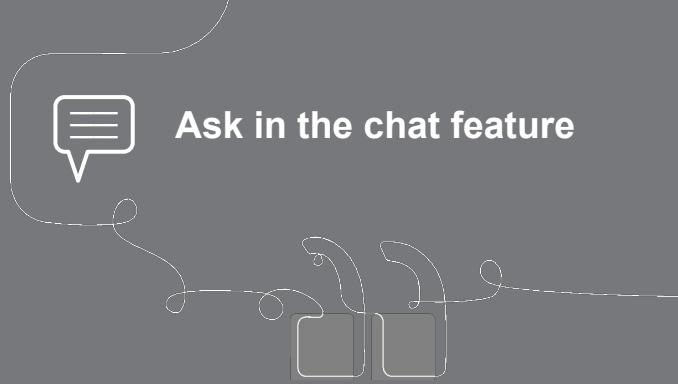
Amplify Science Program Hub

A new hub for Amplify Science resources

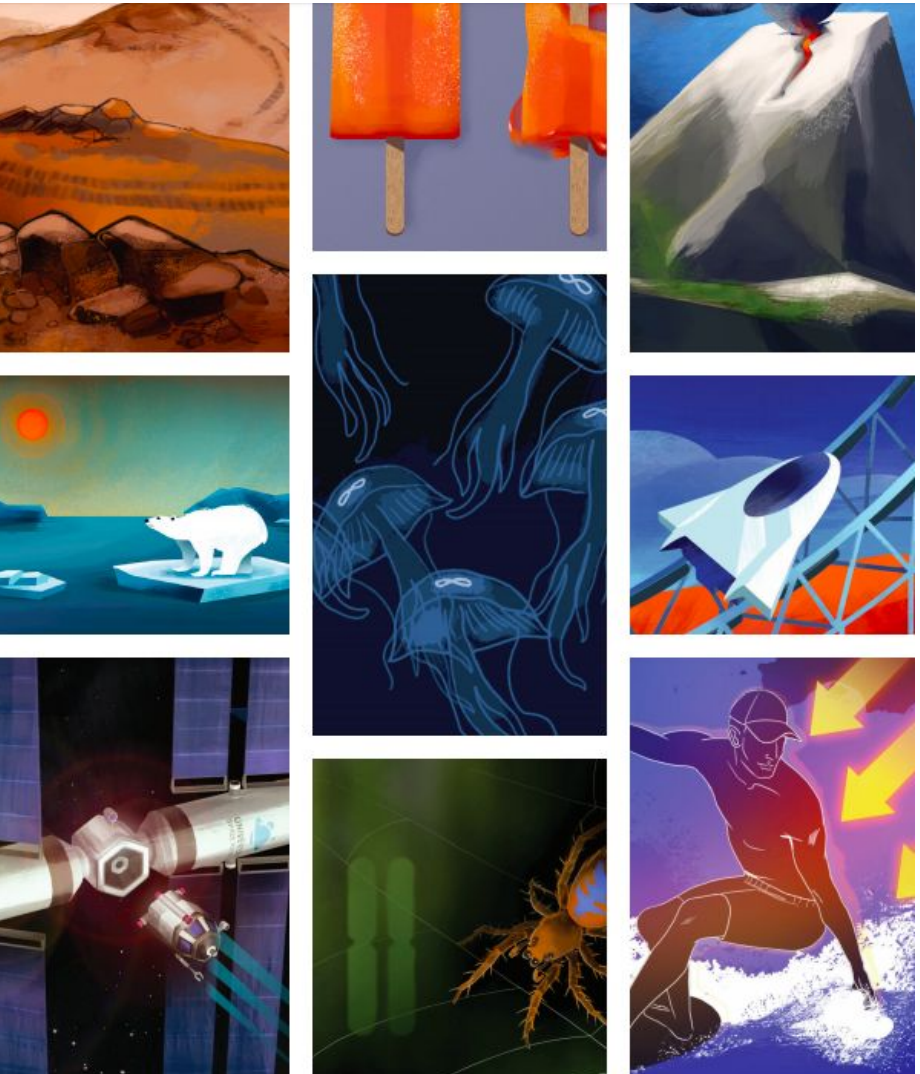
- Click on Global Navigation
- Scroll down and click on Program Hub
- Take some time to explore the resources here.



science.amplify.com/programhub



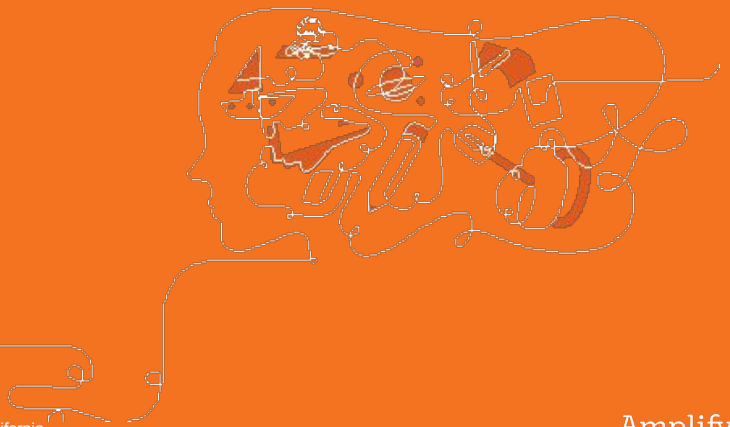
Questions?

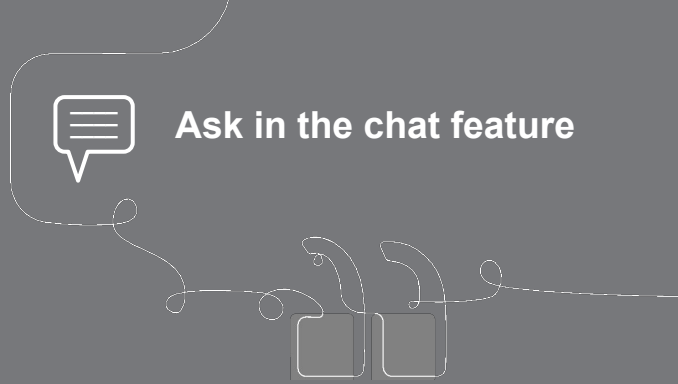


Plan for the day

- ✔ Experiencing the Launch Unit
- ✔ Launch Unit Components
- ✔ Planning to Teach
- ✔ Remote/Hybrid Resources
- Closing and reflection

Closing and Reflection





Questions?

Revisiting Day 2 Objectives

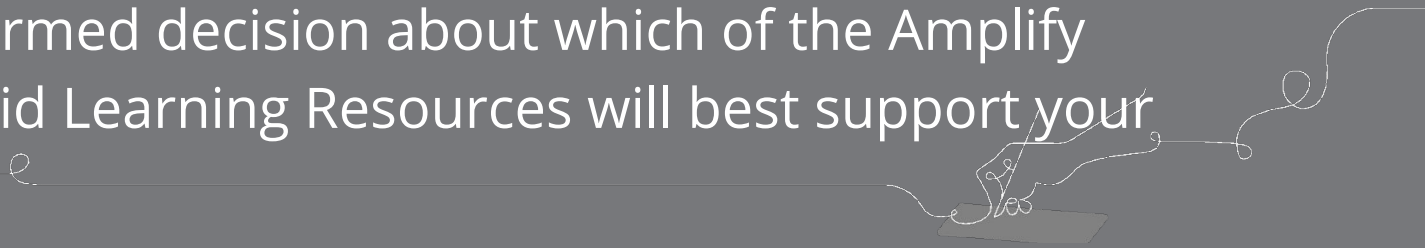
Are you able to...

- Understand the purpose of Launch Units?
- Apply program essentials to prepare to teach an Amplify Science Launch Unit?
- Make an informed decision about which of the Amplify Science Hybrid Learning Resources will best support your students?

Overarching goals

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

- Navigate the Amplify Science curriculum.
- Understand the program's multimodal approach and instructional materials.
- Apply program essentials to prepare to teach an Amplify Science unit.
- Make an informed decision about which of the Amplify Science Hybrid Learning Resources will best support your students.



Closing reflection

Answer in the chat feature

Based on our work today, share:

Brain: something you'll keep in mind

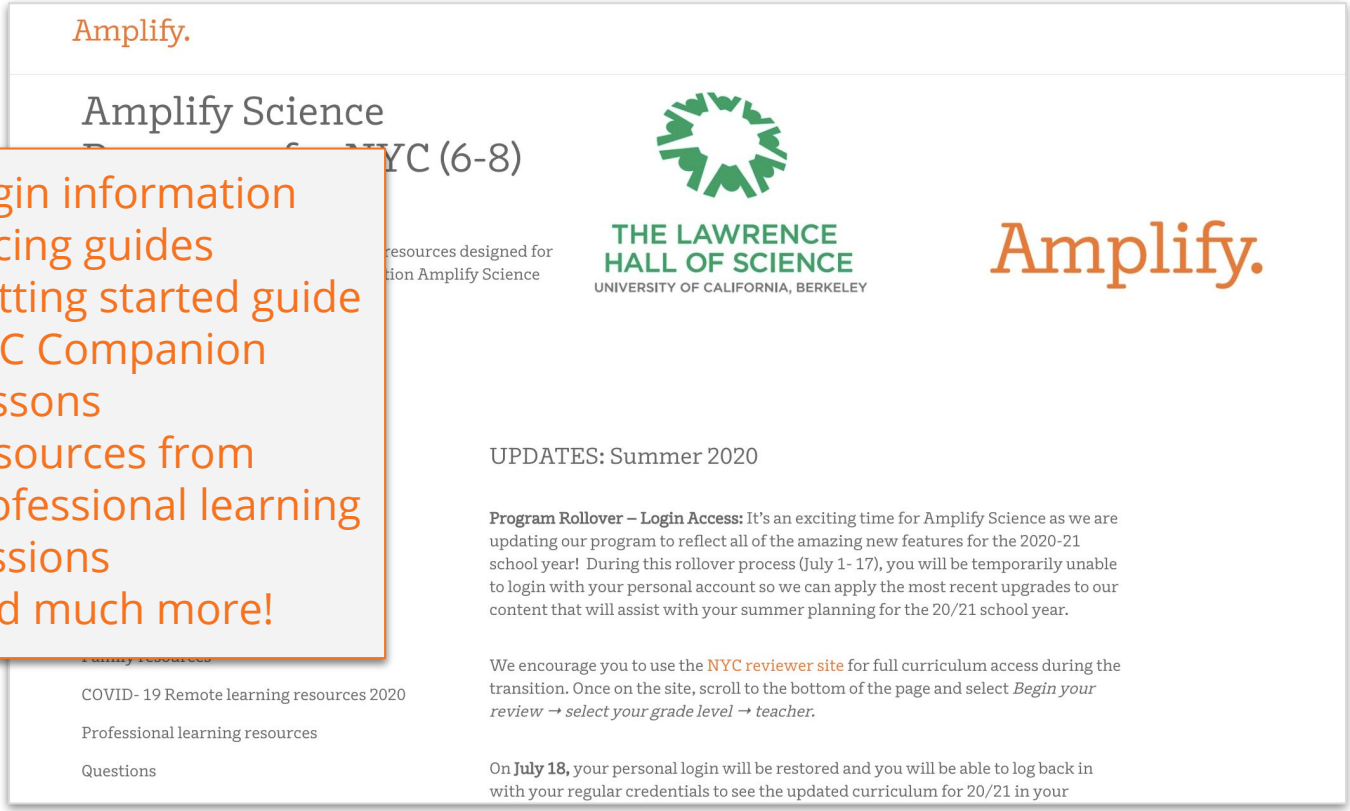
Heart: something you're feeling

Feet: something you're planning to do

New York City Resources Site

https://amplify.com/amplify-science-nyc-doe-resources/

- Login information
- Pacing guides
- Getting started guide
- NYC Companion Lessons
- Resources from professional learning sessions
- And much more!



Additional Amplify resources

CALIFORNIA DISCIPLINE

CA Science Program Guide

Program Guide

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

my.amplify.com/programguide

Amplify Help

Find advice and answers from the Amplify team.

my.amplify.com/help

Additional Amplify support

Customer Care

Access 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

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.

Please provide us feedback!

URL: https://www.surveymonkey.com/r/InitialAmplifySciPL

Presenter name: XXX

Workshop title: Navigating Program Essentials 6-8

Modality: Remote