

Part of the Day	Timing (min)	*PLS use only* Plan for the day
Framing the Day (Slides 1-31)	25 min (9:00-9:25)	<ul style="list-style-type: none"> • Welcome and Introductions (5) • Reflection and Vision setting (10) • Revisiting the Amplify Approach (10)
Unit Internalization (Slides 32-52)	25 min (9:25-9:50)	<ul style="list-style-type: none"> • Resource review (10) • Traditional Amplify Science lesson walk through (15) • Live Navigation (if needed) <p>**Change bullet traditional walk through to 10 min and allocate 10 for navigation if needed**</p>
Break (Slide 53)	5 min (9:50-9:55)	
@Home Resources Internalization (Slides 54-130)	60 min (9:55-10:55)	<ul style="list-style-type: none"> • @Home Units (15 min) • @Home Videos (15 min) • Lesson Internalization (20min) • Resource Selection/Guidance (10 min)
Break (Slide 131)	5 min (10:55-11:00)	
Guided Planning (Slides 132-147)	55 min (11:00-11:55)	<ul style="list-style-type: none"> • Planning document walk through (10 min) • Lesson planning work time (45 min)
Closing (Slides 148-155)	5 min (11:55-12:00)	<ul style="list-style-type: none"> • Reflection/additional resources (3) • Survey (2)

Amplify Science

Grade 8: Force and Motion

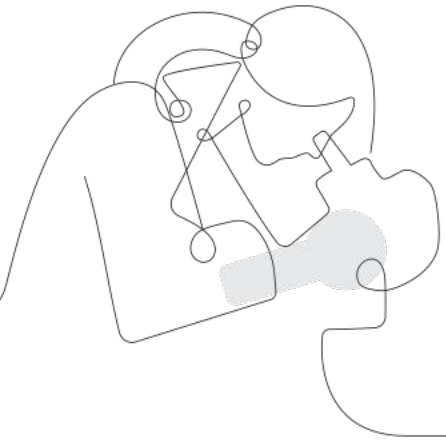
Guided Unit Internalization with @Home Resources

Deep-dive and strengthening workshop

School/District Name

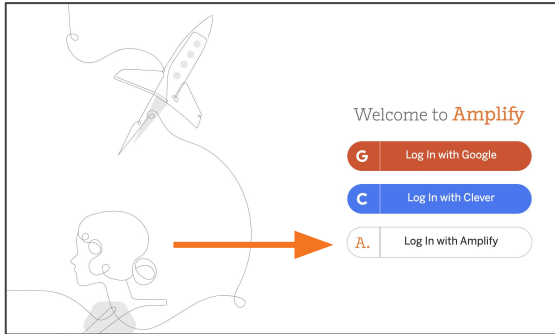
Date

Presented by Your Name

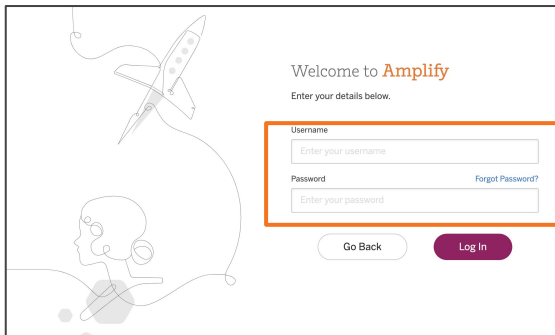


Welcome to Amplify Science!

Do Now: Login



1. Go to **learning.amplify.com**
2. Select **Log in with Amplify**
3. Enter your credentials
4. Explore the curriculum



Use two windows for today's webinar

The image illustrates a two-window setup for a webinar. An inset shows a mouse cursor clicking the maximize button in the window title bar. Window #1 displays a Google Meet page with the URL `meet.google.com/hcs-dxpk-wrm?aut...`. Window #2 displays the Amplify Science curriculum page for Lesson 1.2: Using Fossils to Understand Earth. The page includes a lesson brief, materials and preparation, and digital resources.

Window #1

Meet - Etiwanda Grade 7 N x +
meet.google.com/hcs-dxpk-wrm?aut...

Miller Copy of Navigation Prop... x Amplify Curriculum
apps.learning.amplify.com/curriculum/#unit/8a31e095506df8a2015256f884b4544_californiaintegrated2019-2020#progress-build

Amplify Science

OPEN PRINTABLE PROGRESS BUILD

Progress Build Level 1: The Earth's entire outer layer (below the water and soil that we see) is made of solid rock that is divided into plates. Earth's plates can move.

Underneath the soil, vegetation, and water that we see on the surface of Earth is the outer layer of Earth's geosphere, the solid part of our rocky planet. This outer layer of Earth is covered entirely with hard, solid rock that is divided into sections called plates. And, these plates can move.

Progress Build Level 2: The plates move on top of a soft, solid layer of rock called the mantle. At plate boundaries where the plates are moving away from each other, rock rises from the mantle and hardens, adding new solid rock to the edges of the plates. At plate boundaries where plates are moving toward each other, one plate moves underneath the other and sinks into the mantle.

Underneath the soil, vegetation, and water that we see on the surface of Earth is the outer layer of Earth's geosphere, the solid part of our rocky

Getting Ready to Teach

Materials and Preparation

Flexension Compilation

Investigation Notebook

NGSS Information for Parents and Guardians

Print Materials (11" x 17")

Print Materials (8.5" x 11")

Offline Preparation

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

Offline Guide

Lesson Brief (4 Activities)

1 WARM-UP Warm-Up

TEACHER-LED DISCUSSION Why Geologists Value Fossils

2 TEACHER-LED DISCUSSION Introducing Mesozoic

RESET LESSON

GENERATE PRINTABLE LESSON

Lesson Brief

Digital Resources

Overview

Materials & Preparation

Differentiation

Español rds

All Projections

Completed Scientific Argumentation Wall Diagram

Video: Meet a Paleontologist

The Ancient Mesosaurus

Window #2

Amplify Curriculum
apps.learning.amplify.com/curriculum...
Amplify Science CALIFORNIA > Plate Motion > Chapter 1 > Lesson 1.2

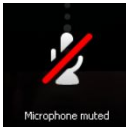
Lesson 1.2:
Using Fossils to Understand Earth

Remote Professional Learning Norms



Take some time to orient yourself to the platform

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



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



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



Make sure you have a note-catcher present



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

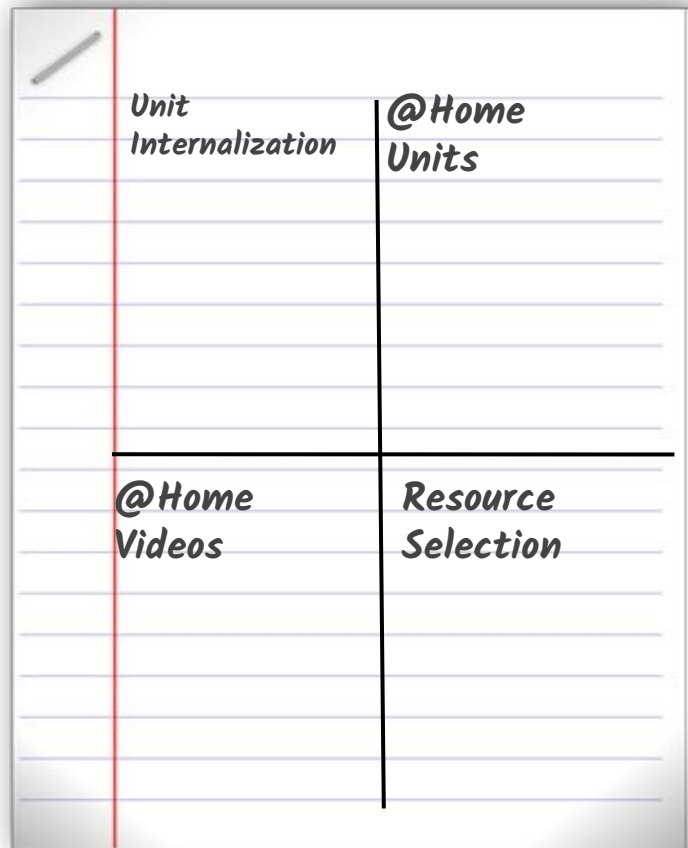
Objectives:

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

- Leverage your understanding of your upcoming unit to make instructional decisions about remote or hybrid learning using the Unit Guide and Amplify Science@Home resources.
- Apply new understanding of the unit to determine which @Home resources best meet the needs of students and give them the most robust experience in figuring out the phenomenon of the unit.
- Plan for the next week of instruction using the @Home resources, your class schedule, instructional format, and internalize the planning protocol to use for future planning.



Capturing key takeaways!



A 2x2 grid is drawn on a sheet of lined paper. The top-left cell contains the text "Unit Internalization". The top-right cell contains the text "@Home Units". The bottom-left cell contains the text "@Home Videos". The bottom-right cell contains the text "Resource Selection". A vertical red line is on the left side of the grid, and a horizontal black line separates the top and bottom rows.

<i>Unit Internalization</i>	<i>@Home Units</i>
<i>@Home Videos</i>	<i>Resource Selection</i>

Plan for the day

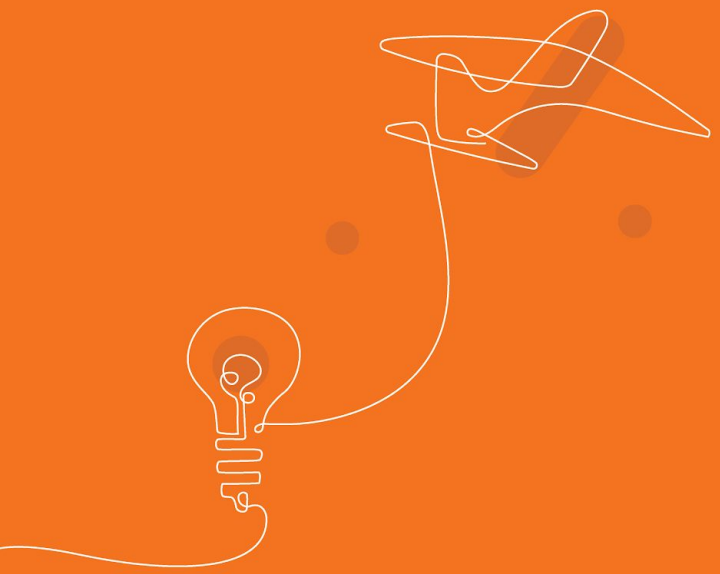
- Framing the day
 - Welcome and introductions
 - Reflection and vision setting
 - Revisiting the Amplify Approach
- Unit Internalization
- @Home Resources Internalization
 - @Home Units
 - @Home Videos
 - Lesson Level Internalization
 - Resource selection/Guidance
- Guided Planning
 - Planning to Teach using @Home
- Reflection and closing



Plan for the day

- Framing the day
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Welcome and Introductions

Who's in the Room?

Represent for your borough!



Share your **name, role, & borough.**

Example: Isis, Teacher, 1

- 1- Brooklyn North**
- 2- Brooklyn South**
- 3- Queens North**
- 4- Queens South**
- 5- The Bronx**
- 6- Staten Island**



Reflection and goal-setting

Reflection: what was last year like?

Stop and jot: **Choose One:** Last year, while teaching remotely...

- What was **one** challenge, problem, or roadblock you or your students experienced?
- What were **two** successes you or your students experienced?
- What are **three** new things you learned or new insights you gained?

Setting a vision

What are you hoping students at your school get out of science this year?

Cultivate a love of science

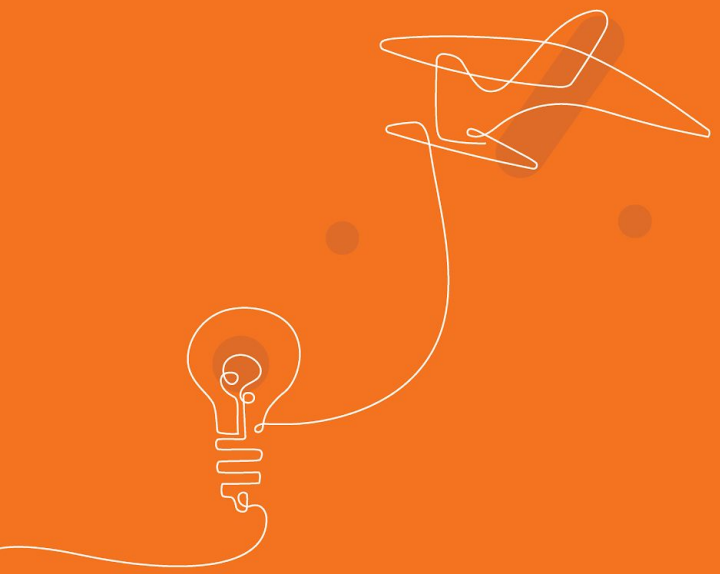
Problem solve

Develop flexible scientific understanding

Think and work like real scientists

Feel successful and build academic confidence

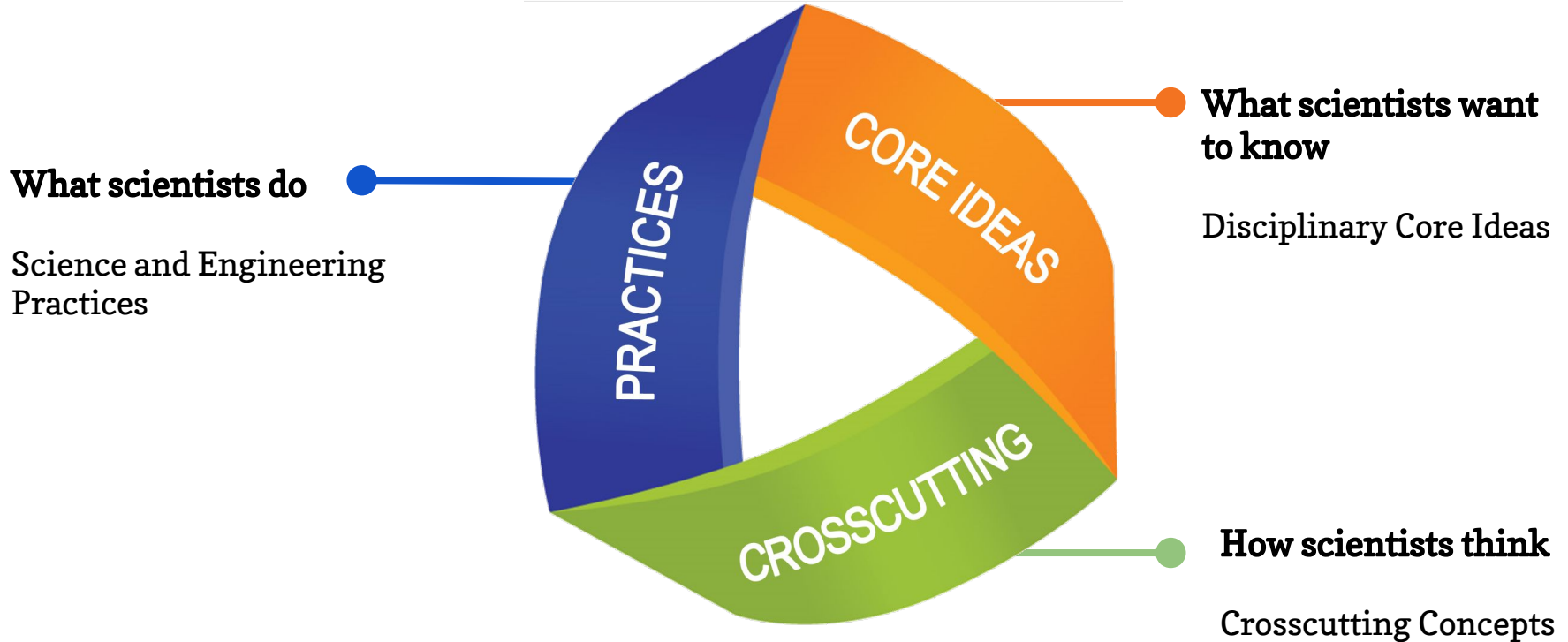
Collaborate and communicate



Revisiting the Amplify Science approach

Next Generation Science Standards

Designed to help students build a cohesive understanding of science

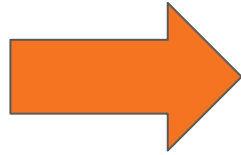


Comparing topics and phenomena

A shift in science instruction

from learning about

(like a student)

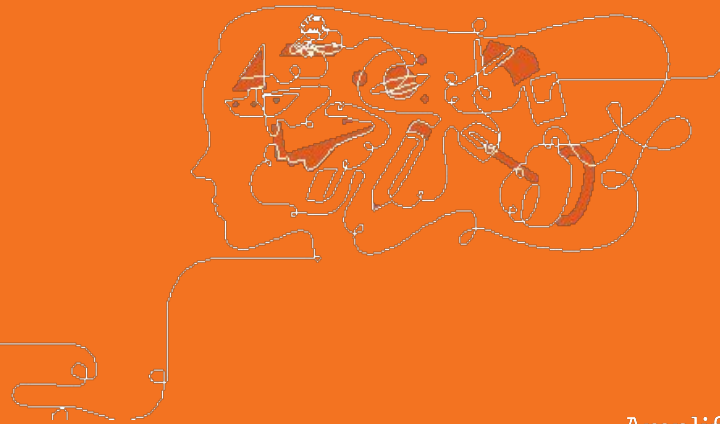


to figuring out

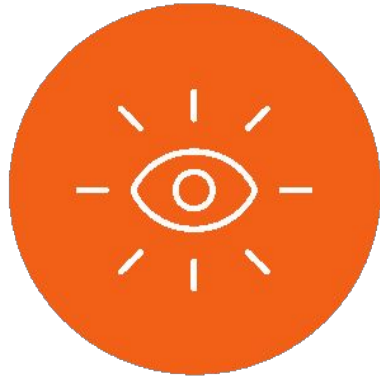
(like a scientist)

Problem-based deep dives

Students inhabit the role of scientists and engineers to explain or predict phenomena. They use what they figure out to solve real-world problems.



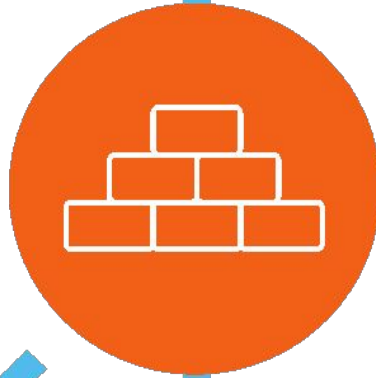
Amplify Science approach



Introduce a real world problem



Collect evidence from multiple sources



Build increasingly complex explanations



Apply knowledge to solve a different problem

What is the first step to the Amplify Science Approach?

A

Collect evidence
from multiple
sources

C

Apply knowledge to
solve different
problem

B

Introduce a
Phenomenon and/or
real world problem

D

Build an increasingly
complex explanation

Multimodal, phenomenon-based learning

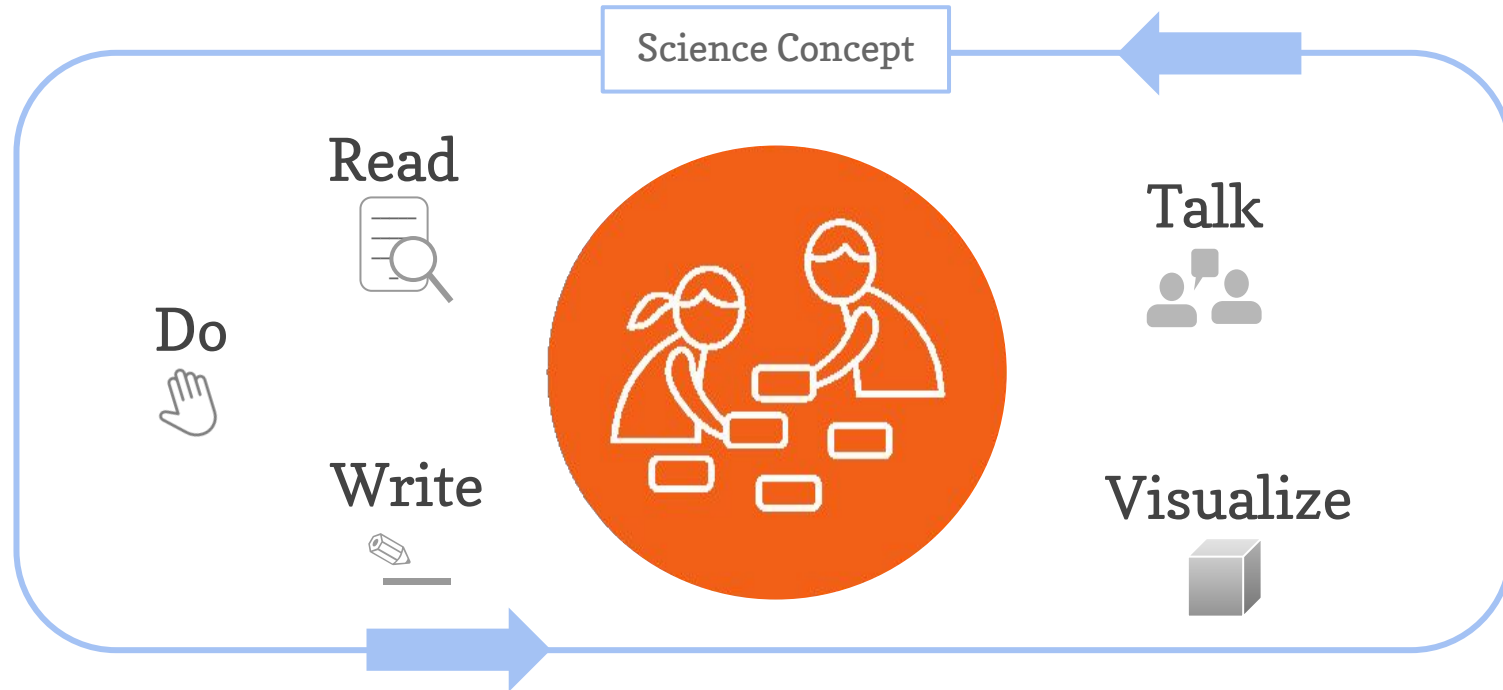
In each Amplify Science unit, students embody the role of a scientist or engineer to figure out phenomena.

They gather evidence from multiple sources, using multiple modalities.



Multimodal learning

Gathering evidence from different sources



What are the multiple modalities?

A

Do, talk, read,
write, visualize

C

Do, visualize,
hands-on
projects

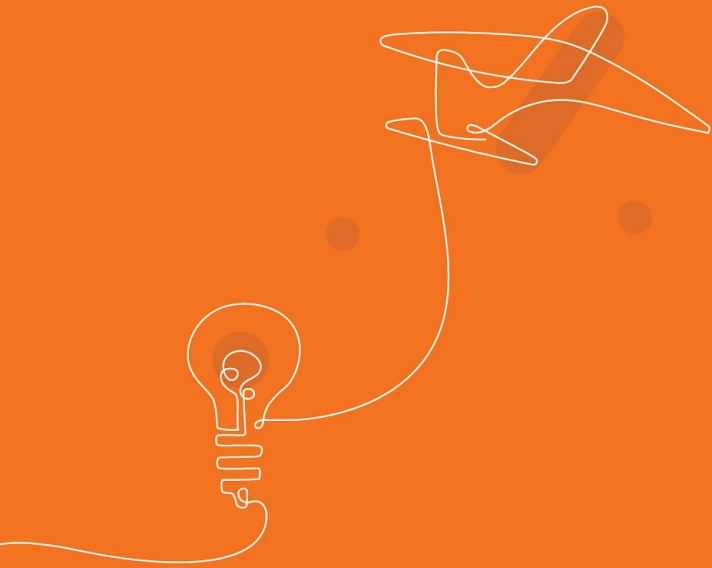
B

Read, write,
google search

D

Reading, writing,
math

Revisiting Resources



Middle School Curriculum New York City Edition

*** Companion Lessons must be completed***

Grade 6

- Launch: *
Harnessing Human Energy
- Thermal Energy
- Ocean, Atmosphere, and Climate
- Weather Patterns
- Populations and Resources
- Matter and Energy in Ecosystems
- 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

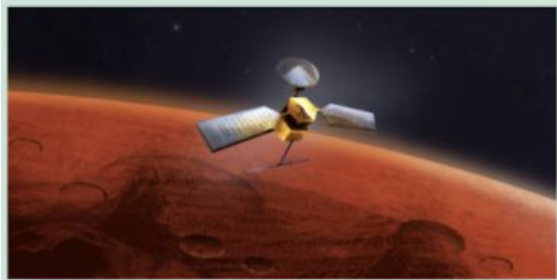
Grade 8

- Launch:
Geology on Mars
- Force and Motion
- Engineering Internship:
Force and Motion
- Earth, Moon, and Sun
- Magnetic Fields
- Light Waves
- Traits and Reproduction
- Natural Selection
- Evolutionary History



Middle School curriculum: Unit types

Launch Units



11 Lessons

Geology on Mars

Core units



19 Lessons

Plate Motion

Engineering Internships



10 Lessons

Plate Motion Engineering Internship

Middle school unit resources



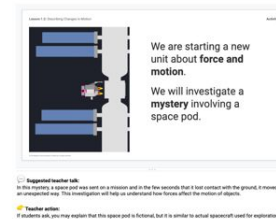
Investigation
Notebooks or digital
student experience



Articles
(digital or print)



Simulations and other
digital tools



Classroom Slides



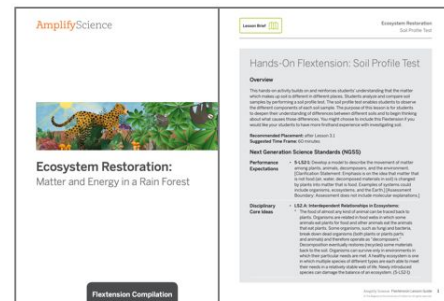
Teacher's Guide
(digital or print)

ACTIVITIES	LEVELS
25/06 5:28 PM Wed. 0/100%	0
25/06 5:00 PM Wed. 0/100%	2 meeting
25/06 4:57 PM Wed. 0/100%	0
25/06 3:42 PM Thu. 0/100%	0

Assessments and
Reporting



Hands-on and print
materials



Hands-on Flexextensions

Middle School Online Component

Warm-Up

Assign in Google



Students describe how the motion of an object can change. (5 min)



Step-by-step

Teacher Support

Possible Responses

My Notes

1. Project Warm-Up. Collapse the instructional guide and project the student screen, or have students turn to page 6 of their Investigation Notebooks. If necessary, let students know that this daily beginning-of-the-lesson activity is meant to get them started thinking about science ideas.

2. Students work independently. Allow a few minutes for students to individually respond to the Warm-Up.

How can an object's motion change?

1. How can the motion of an object that is already moving change?

An object that is already moving can ...

2. How can the motion of an object that is NOT moving change?

An object that is not already moving can ...

Hand In

Plan for the day

- Framing the day
 - Welcome and introductions
 - Reflection and vision setting
 - Revisiting the Amplify Approach
- **Unit Internalization**
- @Home Resources Internalization
 - @Home Units
 - @Home Videos
 - Lesson Level Internalization
 - Resource selection/Guidance
- Guided Planning
 - Planning to Teach using @Home
- Reflection and closing



Navigation Temperature Check

Rate yourself on your comfort level accessing the Amplify Science @Home resources for planning

1 = Extremely Uncomfortable

2 = Uncomfortable

3 = Mild

4 = Comfortable

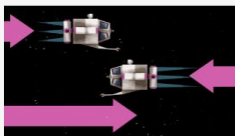
5 = Extremely Comfortable

19 Lessons

Force and Motion

▼ JUMP DOWN TO UNIT GUIDE

🖨️ GENERATE PRINTABLE TEACHER'S GUIDE ▼



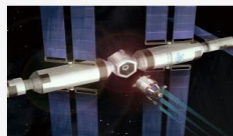
Chapter 1: Force and Velocity

6 Lessons



Chapter 2: Mass and Velocity

5 Lessons



Chapter 3: Collisions

4 Lessons



Chapter 4: Force, Motion, and Movie Sets

4 Lessons

Planning for the Unit

Unit Overview ▼

Unit Map ▼

Printable Resources

🖨️ Article Compilation

🖨️ Coherence Flowchart

🖨️ Copymaster Compilation

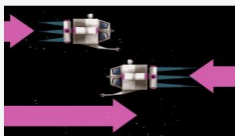


19 Lessons

Force and Motion

▼ JUMP DOWN TO UNIT GUIDE

📄 GENERATE PRINTABLE TEACHER'S GUIDE ▼



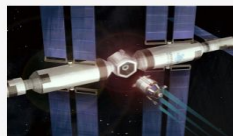
Chapter 1: Force and Velocity

6 Lessons



Chapter 2: Mass and Velocity

5 Lessons



Chapter 3: Collisions

4 Lessons



Chapter 4: Force, Motion, and Movie Sets

4 Lessons

Planning for the Unit

Unit Overview ▼

Unit Map ▼

Printable Resources

📄 Article Compilation

📄 Coherence Flowchart

📄 Copymaster Compilation



Force and Motion: Docking Failure in Space

Problem Students
Work to Solve

Chapter 1 Question

Investigation
Questions

Evidence Sources
and Reflection
Opportunities

Key Concepts

Application of Key
Concepts to
Problem

Explanation That
Students Can
Make to Answer
the Chapter 1
Question

What happened in the missing seconds when the space pod should have docked with the space station?

What caused the pod to change direction?

What makes an object's motion change? (1.3)

- Explore changes in motion with a hands-on activity (1.2)
- Investigate forces and direction using the Sim (1.3)

- A force is required to change the velocity of an object. (1.3)
- How an object changes velocity depends on the direction of the force exerted on that object. (1.3)

- Model the two claims about the pod in the Modeling Tool (1.6)
- Write an explanation for two claims about the pod (1.6)

What causes some velocity changes to be greater than others? (1.4, 1.5)

- Discuss changing direction using unit vocabulary (1.4)
- Investigate force strength using a hands-on activity (1.4)
- Read "Friction" (1.4)
- Test force strength and velocity change in the Sim (1.5)
- Model force strength and velocity change in the Modeling Tool (1.5)

- A stronger force can cause a greater change in velocity. (1.5)
- Understanding a cause-and-effect relationship can help you infer what led to a particular result. (1.6)

The pod could have exerted either too little or too much force. A force is required to change the velocity of an object. The type of velocity change depends on the direction of the force on the object. A stronger force can cause a greater change in an object's velocity. Perhaps the pod's thrusters fired more strongly than usual, causing it to reverse rather than stop. Or perhaps the thrusters fired too weakly, causing the pod to hit the station and bounce off.

Chapter 1: What caused the pod to change direction?



Investigation Question:
What makes an object's motion change?



Multiple sources of evidence

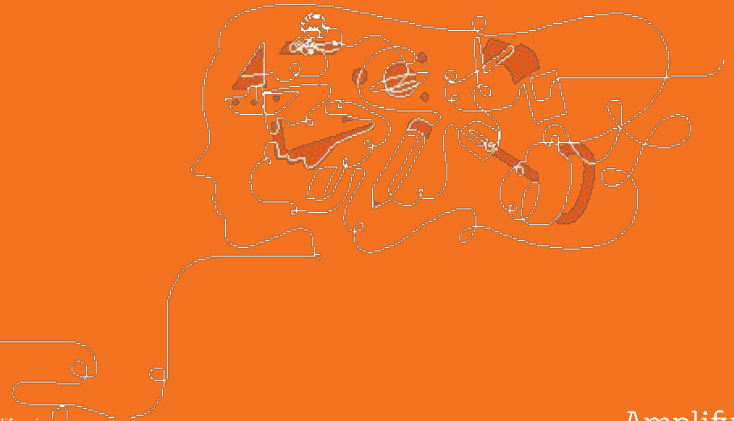


Hands-on
investigation



Simulation

Live Navigation



What are the two unit level resources you to find connections between the unit and chapters while lesson planning?

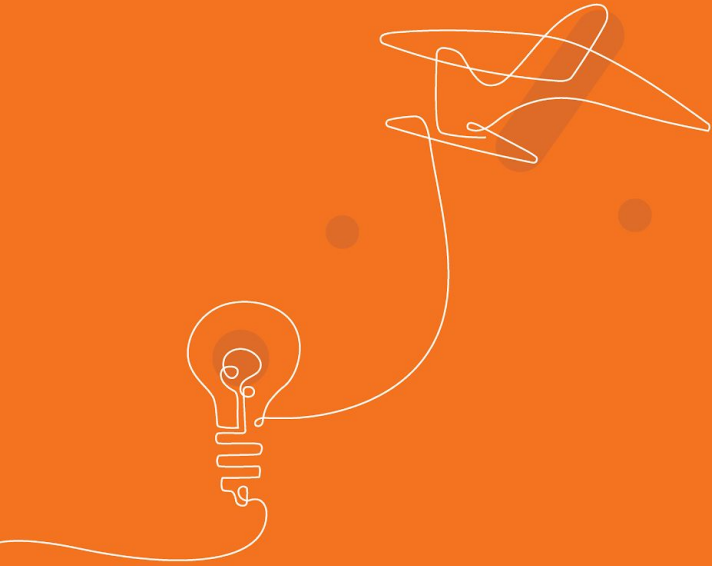
A Lesson overview

C In the offline preparation guide

B The Program Hub

D The unit map and coherence flowchart

Unit Internalization



Unit Guide Resources

Planning for the Unit	Printable Resources
Unit Overview	Article Compilation
Unit Map	Coherence Flowchart
Progress Build	Copymaster Compilation
Getting Ready to Teach	Flexension Compilation
Materials and Preparation	Investigation Notebook
Science Background	NGSS Information for Parents and Guardians
Standards at a Glance	Print Materials (8.5" x 11")
Teacher References	Print Materials (11" x 17")
Lesson Overview Compilation	Offline Preparation
Standards and Goals	
3-D Statements	Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.
Assessment System	Offline Guide
Embedded Formative Assessments	
Articles in This Unit	
Apps in This Unit	
Flexensions in This Unit	

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

The screenshot shows a navigation menu on the left with the following items: Planning for the Unit, Unit Overview, Unit Map (circled in orange), 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, and Flextensions in This Unit. On the right, there are sections for 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")) and Offline Preparation (Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access. Offline Guide button).

The image shows two pages from a unit plan. The left page is titled "Force and Motion Planning for the Unit" and contains a "Unit Map" section. The right page is titled "Force and Motion Planning for the Unit" and contains a "Unit Map" section. Both pages have a "Unit Map" button in the top right corner. The left page has a "Unit Map" section with the following text: "What happened in the missing seconds when the space pod should have docked with the space station?" followed by a paragraph of text and three chapters. The right page has a "Unit Map" section with the following text: "How these affect objects of..." followed by a paragraph of text and a section titled "Vehicle 2 fall off the cliff in the film Iceworld Revenge?" followed by a paragraph of text.

Force and Motion
Planning for the Unit

Unit Map

Unit Map

What happened in the missing seconds when the space pod should have docked with the space station?

In the role of student physicists, students help solve a physics mystery from outer space. A pod returning with asteroid samples should have stopped and docked at the space station. Instead it is now moving back away from the station, and the video feed showing what happened in the seconds during which it reversed direction has been lost. Did the pod reverse before it got to the space station or hit the station and bounce off? Students explore principles of force, motion, mass, and collisions as they solve this mystery.

Chapter 1: What caused the pod to change direction?

Students figure out: The pod could have exerted either too little or too much force. A force is required to change the velocity of an object. The type of velocity change depends on the direction of the force on the object. A stronger force can cause a greater change in an object's velocity. Perhaps the pod's thrusters fired more strongly than usual, causing it to reverse rather than stop. Or perhaps the thrusters fired too weakly, causing the pod to hit the station and bounce off.

How they figure it out: They explore ways to change the motion of objects, and test the effect of forces of different strength, using physical materials (spring-launchers, balls, jar lids) and the Simulation. They read a short article about friction. They discuss a common confusion—the conflation of force and velocity—using key vocabulary. They write and create visual models showing possible causes of the pod reversing direction.

Chapter 2: The thrusters on the ACM pod exerted the same strength force as thrusters on other pods, so why did this pod move differently?

Students figure out: Data shows that the pod's thrusters fired as usual—neither too strong nor too weak. Exerting the same amount of force on two objects with different masses will cause a greater change in velocity for the object with less mass. The pod's mass was greater than usual, so the normal thruster force did not slow the pod as much as usual. It must have hit the station and bounced off.

How they figure it out: They test the effects of changing the mass of an object on which a force acts, in both physical experiments and in the Sim. They read an article about a wheelchair engineer: some wheelchairs, such as racing wheelchairs, require low-mass and others, such as chairs for wheelchair rugby, require higher mass. They make visual models showing what would have happened if the pod were more or less massive than usual.

Chapter 3: After the collision, how does the pod's motion compare to the motion of the space station?

Students figure out: The pod is moving faster than the station is. When two objects collide, a force is exerted on each object. The two forces are in opposite directions but the same strength. Even though the force on each object in a collision is the same strength, the objects will have different velocity changes if their masses are different. The pod is less massive than the station, so the force from the collision affected the velocity of the pod more than the velocity of the station.

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Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Force and Motion

What is the phenomenon students are investigating in your unit?

A pod returning with asteroid samples should have stopped and docked at the space station. Instead it is now moving back away from the station, and the video feed showing what happened in the seconds during which it reversed direction has been lost. Did the pod reverse before it got to the space station or hit the station and bounce off?

Unit Question:

Student role:

Medical students

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

What science ideas do students need to figure out in order to explain the phenomenon?



Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Force and Motion

What is the phenomenon students are investigating in your unit?

A pod returning with asteroid samples should have stopped and docked at the space station. Instead it is now moving back away from the station, and the video feed showing what happened in the seconds during which it reversed direction has been lost. Did the pod reverse before it got to the space station or hit the station and bounce off?

Unit Question:	Student role:
	Student physicists

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

What science ideas do students need to figure out in order to explain the phenomenon?

Lesson Overview Compilation

Pages 4-5

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")

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

Offline Guide

Force and Motion
Teacher References

Lesson Overview Compilation

Force and Motion
Teacher References

Lesson Overview Compilation

Chapters at a Glance

Unit Question
How do forces affect motion?

Chapter 1: Force and Velocity

Chapter Question
What caused the pod to change direction?

Investigation Questions

- What makes an object's motion change? (1.3, 1.4)
- What causes some velocity changes to be greater than others? (1.4, 1.5)

Key Concepts

- A force is required to change the velocity of an object. (1.3)
- How an object changes velocity depends on the direction of the force exerted on that object. (1.3)
- A stronger force can cause a greater change in velocity. (1.5)
- Understanding a cause-and-effect relationship can help you infer what led to a particular result. (1.6)

Chapter 2: Mass and Velocity

Chapter Question
The thrusters on the ACM pod exerted the same strength force as thrusters on other pods, so why did this pod move differently?

Investigation Questions

- If the same strength force is exerted on two objects, why might they be affected differently? (2.1, 2.2, 2.3)

Key Concepts

- If the same strength force is exerted on two objects but the objects have different masses, the object with less mass will have a greater change in velocity. (2.3)

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Force and Motion

What is the phenomenon students are investigating in your unit?

A pod returning with asteroid samples should have stopped and docked at the space station. Instead it is now moving back away from the station, and the video feed showing what happened in the seconds during which it reversed direction has been lost. Did the pod reverse before it got to the space station or hit the station and bounce off?

Unit Question:

How do Forces affect motion?

Student role:

Student physicists

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

What science ideas do students need to figure out in order to explain the phenomenon?



Guided Unit Internalization

Part 1: Unit-level internalization

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Unit Question:

How do forces affect motion?

Student role:

Student physicists

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

The pod is moving faster than the station is. When two objects collide, a force is exerted on each object. The two forces are in opposite directions but the same strength. Even though the force on each object in a collision is the same strength, the objects will have different velocity changes if their masses are different. The pod is less massive than the station, so the force from the collision affected the velocity of the pod more than the velocity of the station.

What science ideas do students need to figure out in order to explain the phenomenon?



Progress Build

Planning for the Unit

- Unit Overview
- Unit Map
- Progress Build**
- Setting 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
- 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

Progress Build

Force and Motion

Planning for the Unit

Progress Build

Progress Build

Each Amplify Science Middle School unit is structured around a unit-specific learning progression, which we call the Progress Build. The unit's Progress Build describes the way students' explanatory understanding of the unit's focal phenomena is likely to develop and deepen over the course of a unit. It is an important tool in understanding the structure of a unit and in supporting students' learning: it organizes the sequence of instruction (generally, each level of the Progress Build corresponds to a chapter), defines the focus of assessments, and grounds the inferences about student learning progress that guide suggested instructional adjustments and differentiation. By aligning instruction and assessment to the Progress Build (and therefore to each other), evidence about how student understanding is developing may be used during the course of the unit to support students and modify instruction in an informed way.

The *Force and Motion* Progress Build consists of three levels of science understanding. To support a growth model for student learning progress, each level encompasses all of the ideas of prior levels and represents an explanatory account of unit phenomena, with the sophistication of that account increasing as the levels increase. At each level, students add new ideas and integrate them into a progressively deeper understanding of how forces can affect the motion of objects. Since the Progress Build reflects an increasingly complex yet integrated explanation, we represent it by including the new ideas for each level in bold.

Prior knowledge (preconceptions): At the start of the *Force and Motion* unit, middle school students will likely have a range of ideas and intuitions about motion change. Many students will have an intuitive notion that forces are required to change an object's motion, but may not yet be able to describe formal or general rules for how forces cause changes in motion. Students may believe that objects in motion possess or are given a force and that this force runs out when the object comes to a stop. This is commonly expressed by students conflating force and velocity and saying that a faster object "has more force." Because of everyday experiences with sliding objects coming to a stop, students will not immediately believe that an object in motion will remain in motion. This alternate conception implies an intuitive sense of friction, but most students do not think of a surface as exerting a force against an object in motion. Also, during collisions between two objects, many students may believe that only the larger, heavier, or faster object delivers a force. The *Force and Motion* Progress Build and unit structure are designed to build on and extend this experience and prior knowledge.

Progress Build Level 1: A force causes a change in an object's velocity.

When an object experiences a force, its velocity will change, depending on the strength and direction of the force. A stronger force causes a greater change in an object's velocity.

Progress Build Level 2: An object's mass determines its velocity change for a given force.

When an object experiences a force, its velocity will change, depending on the strength and direction of the force. A stronger force causes a greater change in an object's velocity. **However, if two objects of different mass experience the same force for the same amount of time, the less massive object will have a greater change in velocity.**



Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Force and Motion

What is the phenomenon students are investigating in your unit?

A pod returning with asteroid samples should have stopped and docked at the space station. Instead it is now moving back away from the station, and the video feed showing what happened in the seconds during which it reversed direction has been lost. Did the pod reverse before it got to the space station or hit the station and bounce off?

Unit Question:

How do forces affect motion?

Student role:

Student physicists

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

The pod is moving faster than the station is. When two objects collide, a force is exerted on each object. The two forces are in opposite directions but the same strength. Even though the force on each object in a collision is the same strength, the objects will have different velocity changes if their masses are different. The pod is less massive than the station, so the force from the collision affected the velocity of the pod more than the velocity of the station.

What science ideas do students need to figure out in order to explain the phenomenon?

A force causes a change in an object's velocity. An object's mass determines its velocity change for a given force. When two objects collide, both experience the same strength force, but in opposite directions.

Think & Share:

In 15 words or less, what do students figure out by the **end of the unit?**



5 min break



Plan for the day

- Framing the day
 - Welcome and introductions
 - Reflection and vision setting
 - Revisiting the Amplify Approach
- Unit Internalization
- **@Home Resources Internalization**
 - @Home Units
 - @Home Videos
 - Lesson Level Internalization
 - Resource selection/Guidance
- Guided Planning
 - Planning to Teach using @Home
- Reflection and closing



Navigation Temperature Check

Rate yourself on your comfort level accessing the Amplify Science @Home resources for planning

1 = Extremely Uncomfortable

2 = Uncomfortable

3 = Mild

4 = Comfortable

5 = Extremely Comfortable



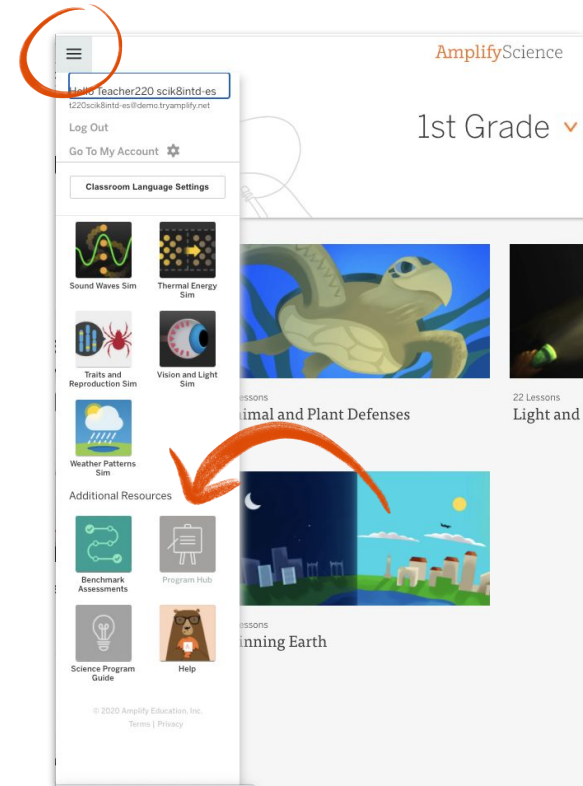
@Home Resources Internalization

A suite of new resources designed
to make extended remote and
hybrid learning easier for teachers
and students.

Accessing Amplify Science@Home

Amplify Science Program Hub

- New site containing Amplify Science@Home and additional PL resources
- Accessible via the Global Navigation menu



AmplifyScience@Home

- Built for a variety of instructional formats
- Digital and print-based options
- No materials required
- Available in English and Spanish (student and family materials)
- Accessible on the Amplify Science Program Hub



AmplifyScience@Home

Two different options:

@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



AmplifyScience@Home

- First unit for each grade level is now available on the Science Program Hub
- Additional units rolling out throughout back-to-school



AmplifyScience

Hello Teacher Sinha-Das
17616-0401@amplify.net

Log Out

Go To My Account

Classroom Language Settings

ELA Resources

Job Postments

LA Science Program Guide

Science Program Guide


FLORIDA EDITION

Standards Map


Help

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1st Grade ▾ **Step 1**



22 Lessons
Animal and Plant Defenses



22 Lessons
Light and Sound



22 Lessons
Spinning Earth

AmplifyScience Program Hub

LAUNCH PROGRAMS

TEACHER SINHA-DAS


Step 2

Welcome, Amplify Science Educators!

The Amplify Science Program Hub consists of resources, tools, and advice to help you make the most of getting started with your program. We've also provided tips and guidance on how to use Amplify Science in a remote and hybrid learning model.

We're excited to partner with you on this journey and can't wait to get started! Please select the button below that best describes your role:

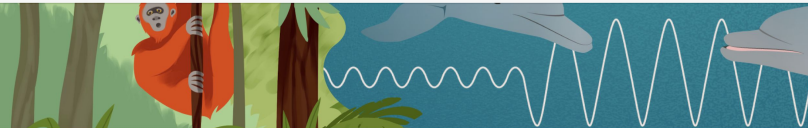
I am a Teacher **I am a Leader**



AmplifyScience Program Hub

LAUNCH PROGRAMS

TEACHER SINHA-DAS



Hello, Teacher!

Search

Welcome

Remote learning: Amplify Science@Home

Hands-on investigations support

Unit extensions

Using this site for self study

Program Overview

Navigation and Materials

Welcome, Amplify Science teacher!

Let's get started! This site will provide you with the knowledge and skills you need to start teaching with Amplify Science. Here you will:

- learn to navigate the digital Teacher's Guide
- become familiar with unit resources
- get planning tips, and
- find our new, flexible remote and hybrid learning supports

This site will be continuously updated, so please check back regularly.

Step 3

AmplifyScience Program Hub

LAUNCH PROGRAMS

TEACHER SINHA-DAS

Hello, Teacher!

Search

Welcome

Remote learning: Amplify Science@Home

About Amplify Science@Home

Grade-level resources

@Home Resources Orientation Videos

Additional resources

Hands-on investigations support

Unit extensions

Using this site for self study

Program Overview

Navigation and Materials

Grade-level resources

Select your grade below to access the @Home resources. Please do not share or distribute these materials outside of your district.

- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Grade 6
- Grade 7
- Grade 8

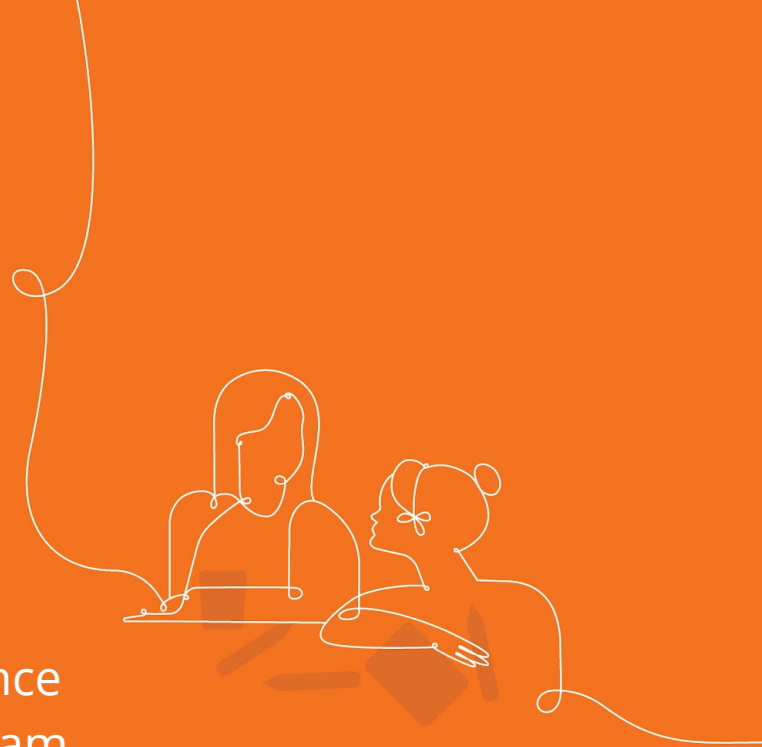
Step 4 (scroll down and choose your grade)

@Home Resources Orientation Videos

Check out these videos for an overview of what's available, plus tips and strategies for teaching with Amplify Science@Home this back to school.

@Home Units

Strategically modified versions of Amplify Science units, highlighting key activities from the program



@Home Units

- Solution for reduced instructional time
- Two options for student access

Amplify Science
Harnessing Human Energy @Home Lesson 2

INTRODUCING ARGUMENTATION
Remember, as student energy scientists we are investigating this question:

Unit Question
How is it possible to charge electrical devices when the power is out?

Scientists ask questions and make observations. Then, when they think they have an idea how something works, they make an argument to support that idea.

Scientific argumentation is the way that scientists communicate, evaluate, and revise their explanations about the natural world.

This image shows many of the resources you will use when you participate in scientific argumentation this year. This is also available at the end of this lesson. You can use this as a resource in this and other units.

Think about this question:
How do you use argumentation in your everyday life?

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

Harnessing Human Energy @Home Lesson 2
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Let's think a little bit about what makes a **strong, convincing scientific argument**. We will also look at two books that can help you use evidence and reasoning in an argument.

Let's use an **everyday example** to think about making **convincing arguments**. Read the argument about Cola. Is this argument **convincing**? Why or why not?

This argument has a **claim** and some **evidence**. What is the argument **missing**?

One reason the cola argument above is **not very convincing** is that it does not explain how the evidence supports the claim. It doesn't explain what **4-met** is or how it relates to health.

Argument About Cola

Claim: Drinking cola is bad for your health.

Evidence: Cola contains a caramel coloring ingredient called 4-met.

Reasoning Tool

Remember, part of creating a strong argument is making your **reasoning** clear. By showing how the evidence connects to the claim.

Many people forget to **explain that thinking clearly** in an argument. To help us, we'll use a graphic organizer called the **Reasoning Tool**. Let's use the cola argument as an example.

Reasoning Tool

Let's pose questions with your partner:

Is evidence **stronger** or **more convincing**?
Did you place it on the Evidence Gradient?
Is evidence **weaker** or **less convincing**?
Did you place it on the Evidence Gradient?
Get pieces of **evidence**, what reasoning would you use to help connect it to the claim?
Why cola is bad for your health?

If we will continue to use the practice of **scientific use** to help us understand the natural world.

Scientific Argumentation

Harnessing Human Energy @Home Lesson 2
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Harnessing Human Energy
@Home Lesson 2

Harnessing Human Energy @Home Lesson 2

Argument About Cola

Question: How does drinking cola affect your health?

Claim: Drinking cola is bad for your health.

Evidence: Cola contains a caramel coloring ingredient called 4-met.

Let's use an everyday example to think about making convincing arguments.

Is this argument convincing?
Why or why not?

Harnessing Human Energy @Home Lesson 2

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

How do you use argumentation in your everyday life?

Harnessing Human Energy @Home Lesson 2
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@Home Packets:
print-based

@Home Slides and Student
Sheets: tech-based

Options for student access

Embedded links to videos:

- Hands-on demonstrations
- Digital tool activities
- Read-alouds

Mara would like you to find out more about why fecal transplants work. This will help the lab provide evidence that microorganisms can cure people with life-threatening infections, so they can fight the bill.

You probably have a lot of questions about fecal transplants. Here is one question that many students had (you might have thought of this question, too):

Chapter 2 Question
How can fecal transplants cure patients infected with harmful bacteria?

Figuring out this question will guide us over the next few lessons. We will need to learn more about bacteria and what they do in the human microbiome to answer this question.

We will be investigating this question:

Investigation Question:
What is the human microbiome?

Today, you will read an article called "The Human Microbiome" to learn more about this.

An important word you will read today:

microbiome: all the microorganisms that live in a particular environment, such as a human body

microbiome


INTRODUCING ACTIVE READING

Introducing Active Reading page or [Lesson 2.1, Activity 2](#)

Life scientists read a lot. They read about investigations that other scientists have done, and they read to learn more about life science. **Active Reading** is a way of reading

2

Harnessing Human Energy @Home Lesson 7



The Little Sun lamp has a light bulb on the front and a solar panel on the back.

Energy Inventions

Many people around the world don't have easy access to the energy they need to power lights, phones, and other electrical devices. There may not be an electrical grid nearby, or they may not have electrical wires to bring power from the electrical grid to their homes, or they may have electrical wires, but the nearest power plant may only provide energy part of the time, leaving people in the dark when it doesn't work. These people may not have much money, so they can't just buy lots of batteries to power their lights. They face an energy problem: they need access to cheap, reliable electricity. All over the world, people from professional engineers and energy scientists to students, artists, and amateurs are working to solve this problem. They have designed ways to provide portable light to places where electrical power isn't always available. In this article, you'll read about a few of them.

Gathering Energy from the Sun

When Oduar Ekesson and Frederik Ottosen heard that more than 1 billion people on Earth don't have access to electricity, they wanted to help. In many places, lack of electricity means students can't study after dark and teachers can't work after the sun goes down. It's also harder for doctors and nurses to treat patients without good lighting. Some people light their homes by burning a type of oil called kerosene, but kerosene is expensive and produces thick black smoke that causes lung disease—and it can cause houses to catch fire. Ekesson and Ottosen decided to invent a solar lamp that would provide light without costing a lot of money, polluting the air, or causing fires. Their solution? The Little Sun lamp, a sun-shaped light with a light bulb on one side and a solar panel on the other.

The Little Sun lamp uses energy to provide light to people who need it. But the Little Sun doesn't make its own energy. To run, the lamp needs to get energy from somewhere else. In this case, that source of energy is the sun. The solar panel on the back of the lamp converts light energy

Energy Inventions

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Go to your copy of the "Energy Inventions" article from @Home Lesson 5.

"Energy Inventions" article or [Lesson 2.2, Activity 2](#)

61

Options for student access

Alternative to embedded video links

Access via curriculum:

- Science practice tools
- Simulations
- Amplify Library

Hands-on demos accessible only via embedded YouTube links

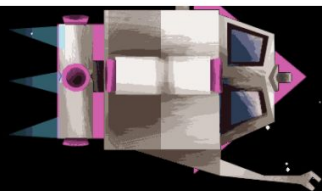
The image shows two overlapping screenshots of an educational platform. The background screenshot is titled "Energy Conversions" and features a navigation menu with sections: "Simulation" (item 1), "Science Practice Tools" (items 1 and 2), "Student Books" (items 1 through 6), and "Libros para estudiantes" (items 1 and 2). The foreground screenshot is titled "Cells: The Basic Unit of Life" and contains the following text: "Your entire body is made of cells—trillions of them! Cells are the tiny structures that make up all living organisms, including sharks, plants, cats, insects, bacteria, and you. People often say that cells are the basic building blocks of life. That's true, but the phrase "building blocks" makes it sound as if all cells are the same. In fact, organisms are different from one another because of the *differences* in their cells. There are many types of cells." Below the text is a microscopic image of a cell with purple-stained internal structures. A small "Español" button is visible in the bottom left corner of the foreground window.

@Home Unit resources

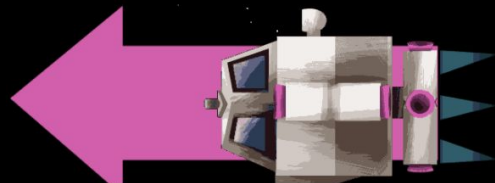
All resources are fully editable and customizable

- **Family Overview**
 - Provides context for families
- **Teacher Overview**
 - Outlines the unit and summarizes each lesson
 - Suggestions for adapting for different scenarios
- **Student materials**
 - ~30-minute lessons (slide decks or packets) featuring prioritized activities from Amplify Science curriculum

Example lesson: *Force and Motion 1.2*



Lesson 1.2: Describing Changes in Motion



Lesson Brief
(5 Activities)

1

WARM-UP
Warm-Up



T

TEACHER
The Missing Seconds Video

2

STUDENT-TO-STUDENT
DISCUSSION
Discussing What Happened
to the Pod

3

HANDS-ON
Exploring Changes in
Motion

4

STUDENT-TO-STUDENT
DISCUSSION
Discussing Changes in
Motion

5

HOMEWORK
Homework



@Home Lesson : Amplify Science lesson 1.2

@Home Lesson 1

Adapted from: Amplify Science *Force and Motion* Lesson 1.2

Key Activities

- **Introducing the *Force and Motion* Unit:** Students are introduced to the unit problem—a space pod that did not change velocity as expected—and their role as student physicists.
- **Talk:** Students discuss what may have gone wrong with the space pod.
- **Do:** Students explore ways that can cause an object, such as a small ball, the lid of a jar, or a toy car, to change its motion.

Ideas for synchronous or in-person instruction

While meeting, lead a full-class discussion about what may have happened to the pod after pairs discuss. If meeting in person, conduct the hands-on activity as in *Force and Motion* Lesson 1.2, Activity 3.

@Home Lesson 2

Amplify Science @Home Curriculum

You have access to the
Metabolism @Home Unit.

The Force and Motion @Home
Unit has **13 lessons**. Each
lesson is written to be **30
minutes** long.

Force and Motion@Home Unit resources

- Teacher Overview ([PDF](#), [Google](#)) and [Lesson Index](#)
- Family Overview ([PDF](#), [Google](#)) *To come: Spanish versions of this and all student materials*
- @Home Slides compilation ([PDF](#), [Google](#))
- @Home Packet compilation ([PDF](#), [Google](#))
- @Home Student Sheets Compilation ([PDF](#), [Google](#)) *Note: Either Students Sheets or student access to their Amplify account is required when using @Home Slides.*
- Individual @Home Lesson materials (see table below)

Paper option

Digital option

	Print-based option	Digital option
Lesson 1	Packet (PDF , Google) – Spanish to come	Slides (PDF , Google) + Student Sheets (Google) – Spanish to come
Lesson 2	Packet (PDF , Google) – Spanish to come	Slides (PDF , Google) + Student Sheets (Google) – Spanish to come
Lesson 3	Packet (PDF , Google) – Spanish to come	Slides (PDF , Google) + Student Sheets (Google) – Spanish to come
Lesson 4	Packet (PDF , Google) – Spanish to come	Slides (PDF , Google) + Student Sheets (Google) – Spanish to come
Lesson 5	Packet (PDF , Google) – Spanish to come	Slides (PDF , Google) + Student Sheets (Google) – Spanish to come

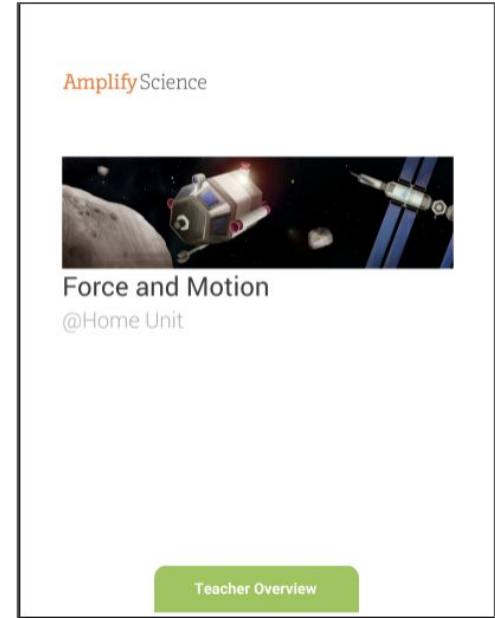
Teacher Overview

Unit-level

- Overview of resources
- Pacing
- Planning for instructional routines
- Assessment considerations

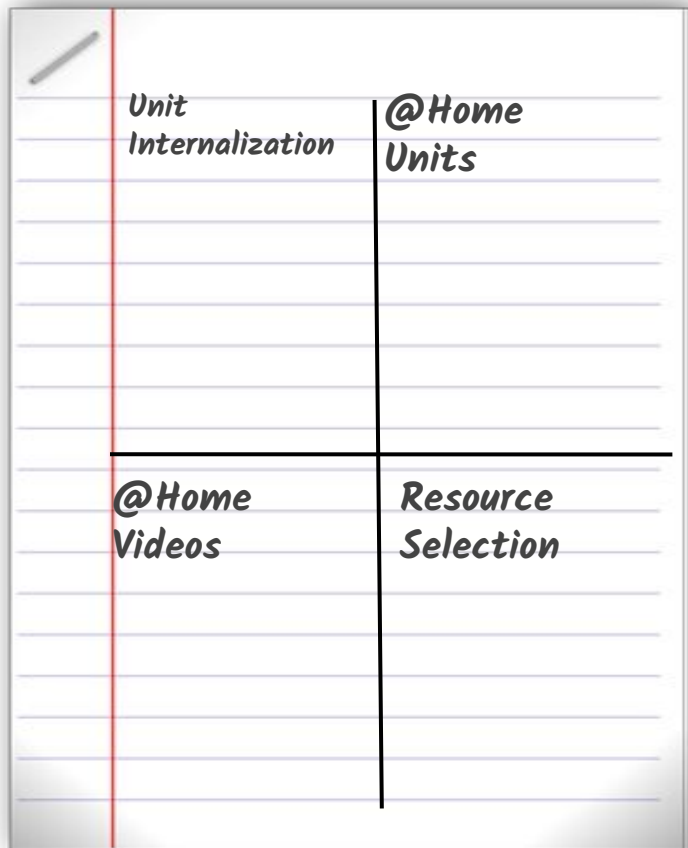
Lesson-level

- Chapters at a glance
- Lesson outlines



*Appendix provides the student investigation notebook pages that go with each lesson.

Capturing key takeaways!



A 2x2 grid is drawn on a lined notebook page. The grid is defined by a vertical red line on the left, a vertical black line on the right, and a horizontal black line across the middle. The text is handwritten in a cursive style.

<i>Unit Internalization</i>	<i>@Home Units</i>
<i>@Home Videos</i>	<i>Resource Selection</i>

Navigating the Program HUB

Welcome, Amplify Science Educators!

The Amplify Science Program Hub consists of resources, tools, and advice to help you make the most of getting started with your program. We've also provided tips and guidance on how to use Amplify Science in a remote and hybrid learning model.

We're excited to partner with you on this journey and can't wait to get started!
Please select the button below that best describes your role:

I am a Teacher

I am a Leader



Explore your @Home Unit

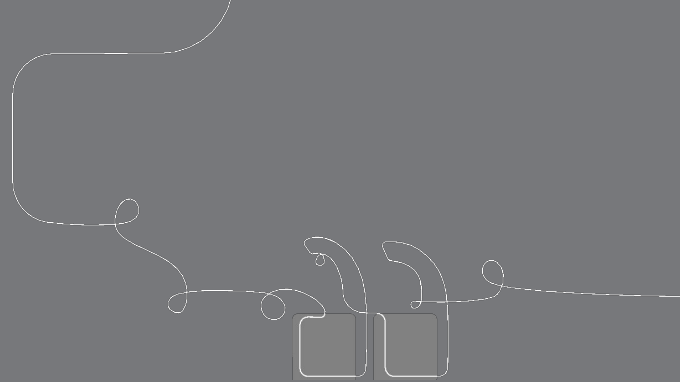
Navigate to Force and Motion on the Program Hub and explore. You may choose to start with the Teacher Overview, or dig into a lesson.

Consider how this resource can help you reach the vision you set for science this year.



Share insights

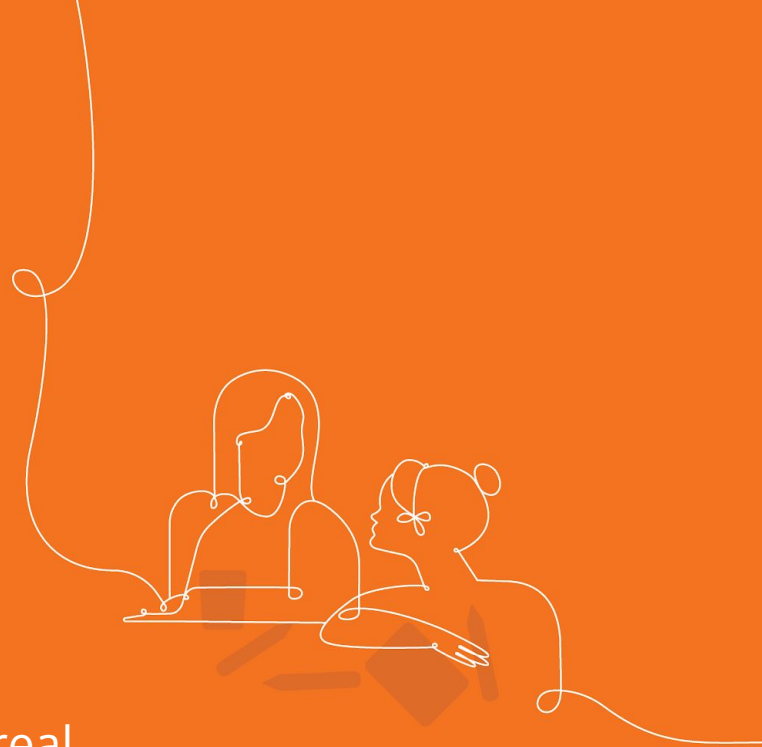
How could the @Home Units resources in your remote instruction?



Questions?

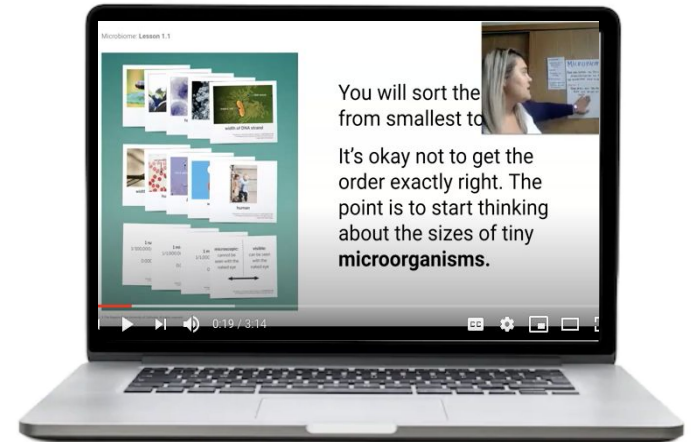
@Home Videos

Versions of original Amplify Science lessons adapted for remote learning and recorded by real Amplify Science teachers



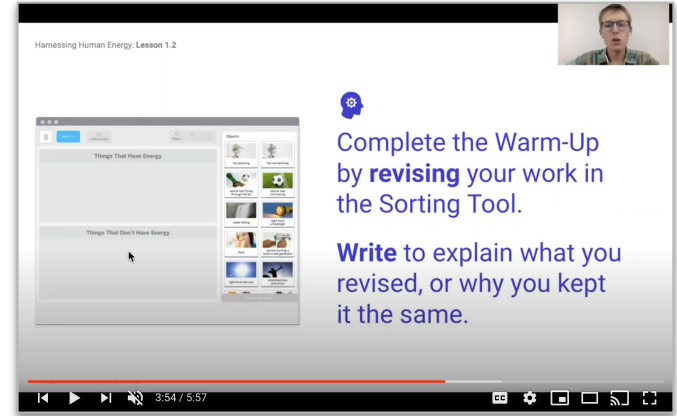
@Home Videos

- Lesson playlists include **all activities** from original units
- Great option if have the **same amount of instructional time** as you typically would for science
- Requires **tech access** at home
- Use videos as **models for making your own lesson videos** or leading **online science class**



Interactive video experience

- **Calls to action**
 - Think prompts, pause and take notes, stand up and try it, talk to someone
- **Stand-alone videos within lesson playlists**
 - Read-alouds, digital tool uses, hands-on
- **Options to use notebooks and/or materials if available**



Hamessing Human Energy: Lesson 1.2

Things That Have Energy

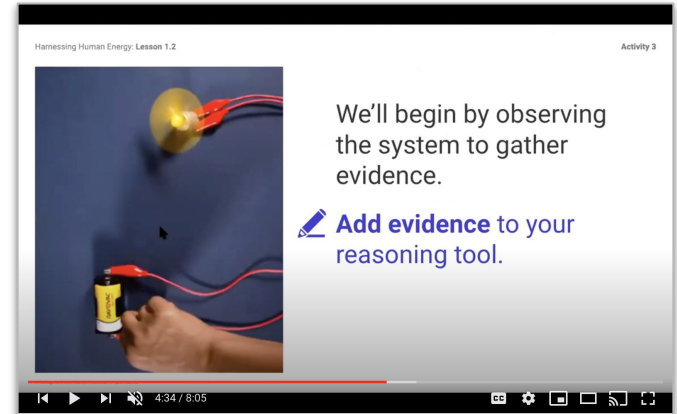
Things That Don't Have Energy

Complete the Warm-Up by **revising** your work in the Sorting Tool.

Write to explain what you revised, or why you kept it the same.

3:54 / 5:57

This screenshot shows a video player interface for 'Hamessing Human Energy: Lesson 1.2'. The main content area displays a 'Sorting Tool' with two sections: 'Things That Have Energy' and 'Things That Don't Have Energy'. To the right, there is a blue brain icon and text instructing the user to 'Complete the Warm-Up by **revising** your work in the Sorting Tool.' Below this, it says '**Write** to explain what you revised, or why you kept it the same.' The video player controls at the bottom show a progress bar at 3:54 / 5:57.



Hamessing Human Energy: Lesson 1.2

Activity 3

We'll begin by observing the system to gather evidence.

Add evidence to your reasoning tool.

4:34 / 8:05

This screenshot shows a video player interface for 'Hamessing Human Energy: Lesson 1.2'. The main content area features a photograph of a hand holding a battery connected to a light bulb with wires. To the right, the text reads 'We'll begin by observing the system to gather evidence.' Below this, it says '**Add evidence** to your reasoning tool.' The video player controls at the bottom show a progress bar at 4:34 / 8:05.

Amplify Science @Home Curriculum

You have access to the Force and Motion @Home Videos.

There are 16 @Home Videos for the Force and Motion unit. This covers all lessons expect for the assessment lessons (1.1, 2.4, and 4.4). The video playlists on YouTube teach the standard Amplify Science Lessons.

Force and Motion@Home Video playlists

Note: Assessment lessons are not included. Spanish videos to come.

Chapter 1

- Lesson 1.2
- Lesson 1.3
- Lesson 1.4
- Lesson 1.5
- Lesson 1.6

Chapter 2

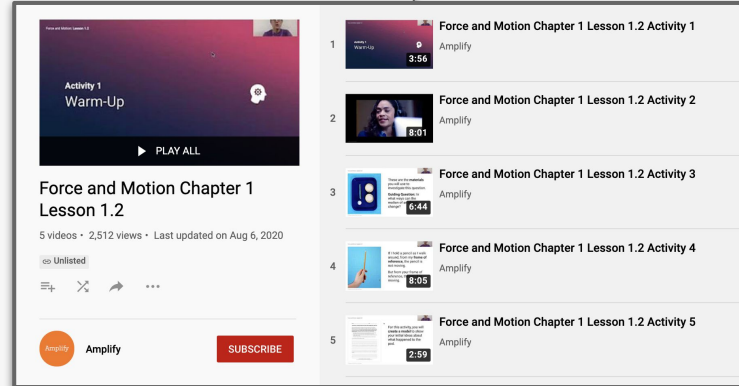
- Lesson 2.1
- Lesson 2.2
- Lesson 2.3
- Lesson 2.5

Chapter 3

- Lesson 3.1
- Lesson 3.2
- Lesson 3.3
- Lesson 3.4

Chapter 4

- Lesson 4.1
- Lesson 4.2
- Lesson 4.3



@Home Videos

Using the resources

- Assign videos for students to watch during remote, asynchronous time
- Leverage synchronous time for live teaching
 - Lots of time? Teach full lessons
 - Less time? Revisit and preview (see table)

Synchronous time	
In-person	Online class
<ul style="list-style-type: none">● Discourse routines● Class discussions● Hands-on investigations (option for teacher demo)● Physical modeling activities	<ul style="list-style-type: none">● Online discussions● Sim demonstrations● Interactive read-alouds● Shared Writing● Co-constructed class charts

@Home videos

Completing written work

Students can complete written work using:

- Digital student platform
- Investigation Notebook
- Pencil and paper

Teaching Tips:

- Use in collaboration with instruction
- Make a plan for how students will **submit** written work.
- Use the **Teacher's Guide** to plan which work products you will collect.

Metabolism: Lesson 1.3 Activity 2

Molecules Cells Need

When your body is healthy, it runs so smoothly that you probably don't even notice it without thinking about it. You can get up in the morning, breathe, laugh, dance, grow, fight off viruses, and live your life! But what makes a body healthy and able to do all that stuff? In a healthy body, all the systems work together to make sure every cell gets the **nutrients** it needs. **Carbohydrates** and **proteins** provide **metabolism** in the body in case of these molecules for **energy** and growth.

Rate how successful you were at using Active Reading skills by responding to the following statement:

By reading, I paid attention to my own understanding and recorded my thoughts and questions.

1. Never
2. Almost never
3. Sometimes
4. Frequently often
5. All the time

Review your annotations and then **answer** the reflection question.

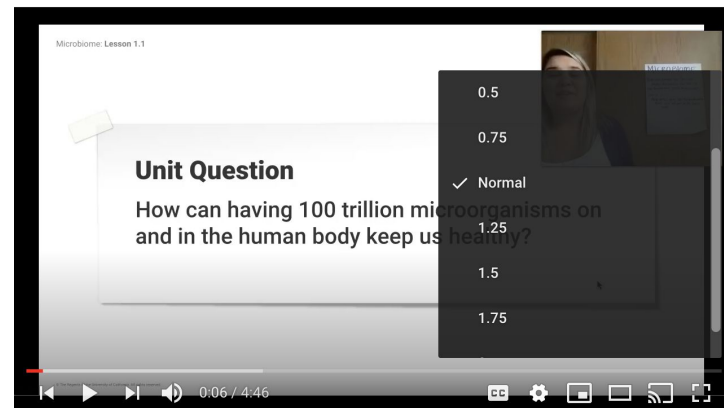
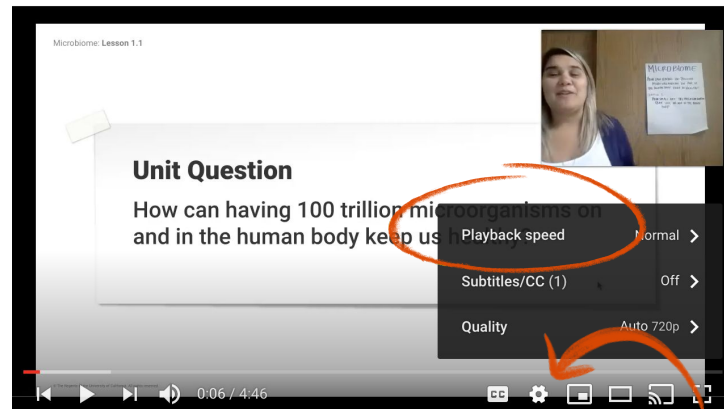
2:15 / 2:18

Planning suggestions: @Home Videos

The Teacher's Guide is the best planning tool for @Home videos.

- Use the **Lesson Overview Compilation** in the Unit Guide as a pacing and planning tool.
- Refer to the lessons themselves to plan for synchronous instruction.

Try **adjusting the playback speed** of videos to preview them.



Explore your @Home Videos

Navigate to Force and Motion on the Program Hub and explore a video lesson. You may want to compare the video lesson to the lesson in the Teacher's Guide.

Consider how this resource can help you reach the vision you set for science this year.



Share insights

How could you use the @Home Videos in your remote instruction?



Questions?

Navigation Temperature Check

Rate yourself on your comfort level accessing the Amplify Science @Home resources for planning

1 = Extremely Uncomfortable

2 = Uncomfortable

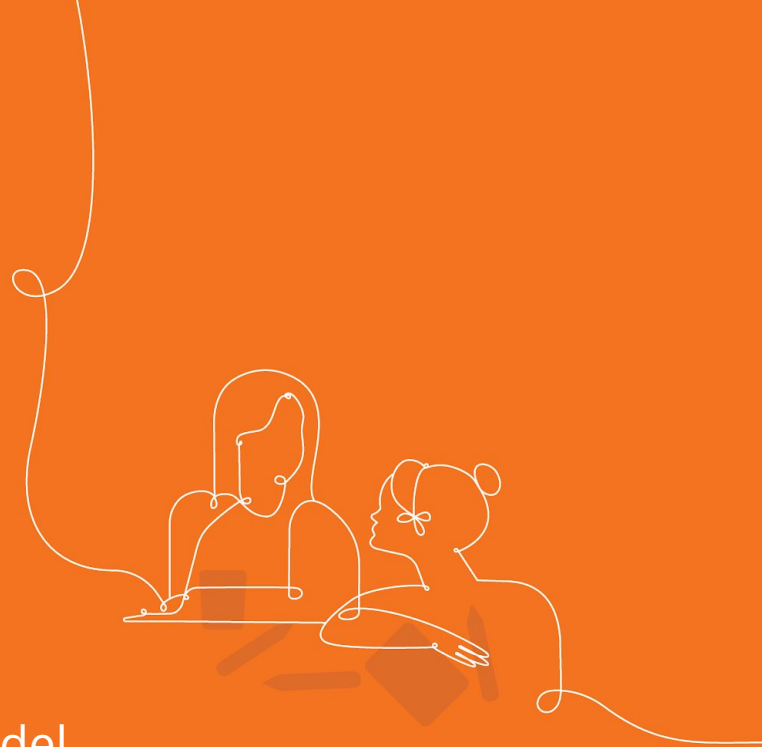
3 = Mild

4 = Comfortable

5 = Extremely Comfortable

@Home Resources Lesson Internalization

Determine which resource you will use in accordance with your schools instructional model.



@Home Lesson 1

Adapted from: Amplify Science *Force and Motion* Lesson 1.2

Key Activities

- **Introducing the *Force and Motion* Unit:** Students are introduced to the unit problem—a space pod that did not change velocity as expected—and their role as student physicists.
- **Talk:** Students discuss what may have gone wrong with the space pod.
- **Do:** Students explore ways that can cause an object, such as a small ball, the lid of a jar, or a toy car, to change its motion.

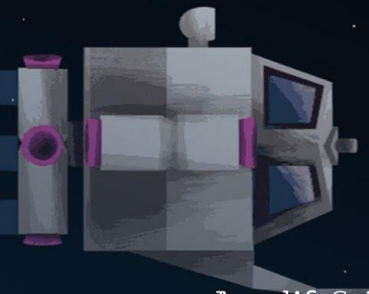
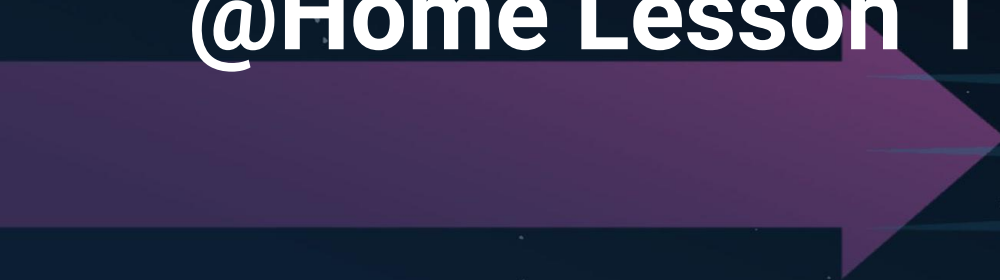
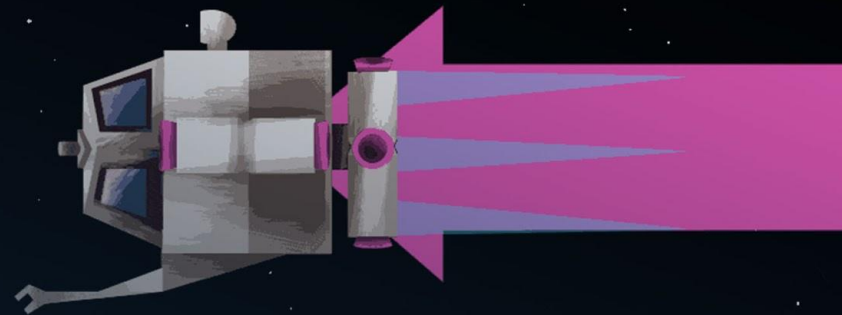
Ideas for synchronous or in-person instruction

While meeting, lead a full-class discussion about what may have happened to the pod after pairs discuss. If meeting in person, conduct the hands-on activity as in *Force and Motion* Lesson 1.2, Activity 3.

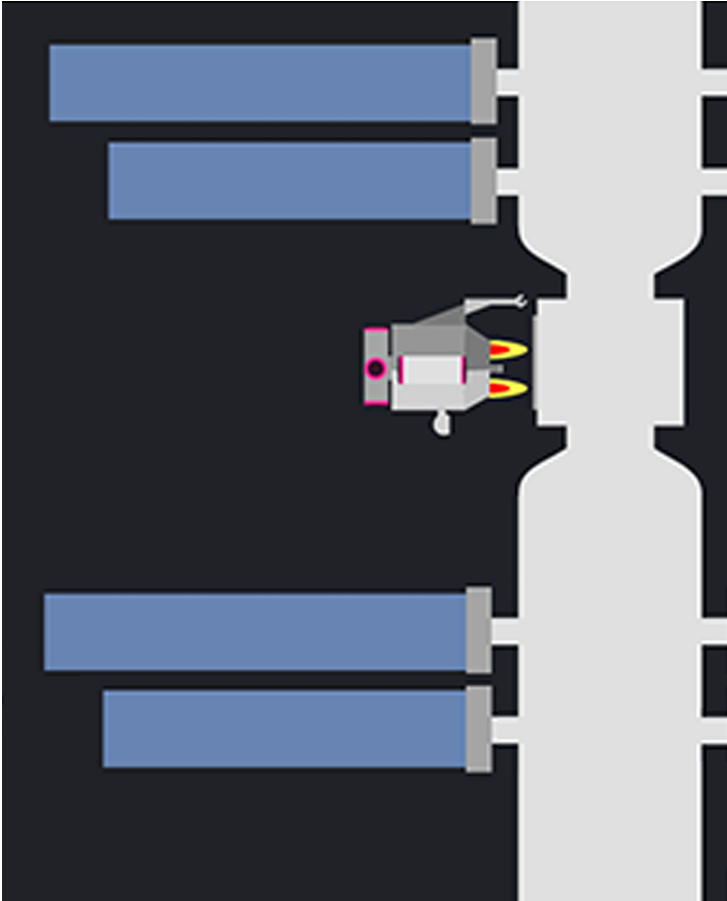


Force and Motion

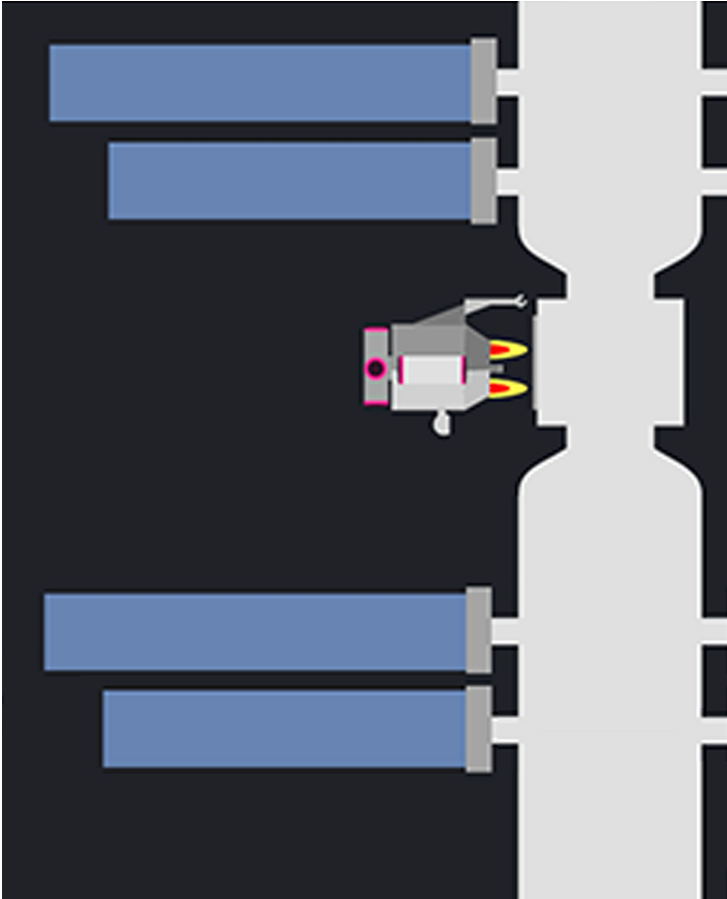
@Home Lesson 1



Today, we will begin a new unit called ***Force and Motion.***



In this unit, we will investigate a mystery. A **space pod** was sent on a mission and, in the few seconds that it lost contact with the ground, it **moved in an unexpected way.**



The space pod mystery is fictional but based on real missions.

Investigating this mystery will help you figure out how forces affect the motion of objects.

As we investigate the space pod, we will also learn about this question.

Unit Question

How do forces affect motion?

Next, you will watch a video about the space pod mystery. As you watch, think about this question:



Why do you think the pod moved in the opposite direction instead of stopping like it was supposed to?



@Home Lesson 1

Adapted from: Amplify Science *Force and Motion* Lesson 1.2

Key Activities

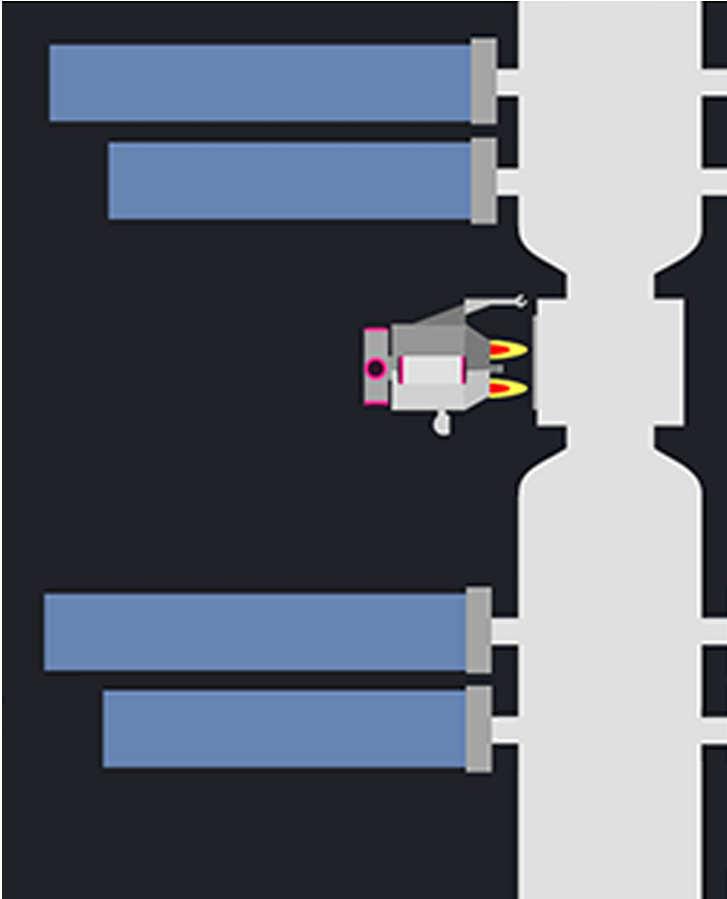
- **Introducing the *Force and Motion* Unit:** Students are introduced to the unit problem—a space pod that did not change velocity as expected—and their role as student physicists.
- **Talk:** Students discuss what may have gone wrong with the space pod.
- **Do:** Students explore ways that can cause an object, such as a small ball, the lid of a jar, or a toy car, to change its motion.

Ideas for synchronous or in-person instruction

While meeting, lead a full-class discussion about what may have happened to the pod after pairs discuss. If meeting in person, conduct the hands-on activity as in *Force and Motion* Lesson 1.2, Activity 3.

Next, you'll discuss the video and what might have happened to the pod.

In this lesson and many others in the *Force and Motion @Home* Unit you will need to **talk with a partner**. Check with your teacher about how you will work with partners in this @Home Unit.



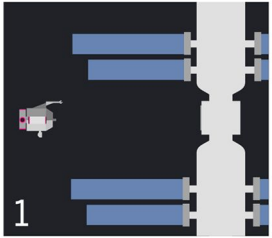
Discuss this question with your partner.



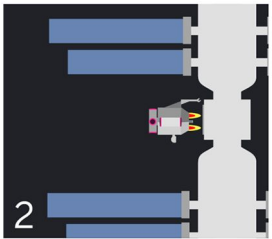
Why do you think the pod moved in the **opposite direction** instead of **stopping** like it was supposed to?

Next, you'll review the information on the next three slides and discuss with your partner.

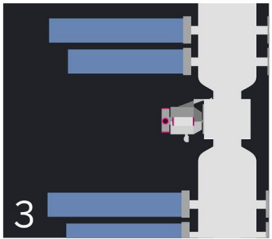
Asteroid Collection Missions



Pod approaches space station at medium speed.



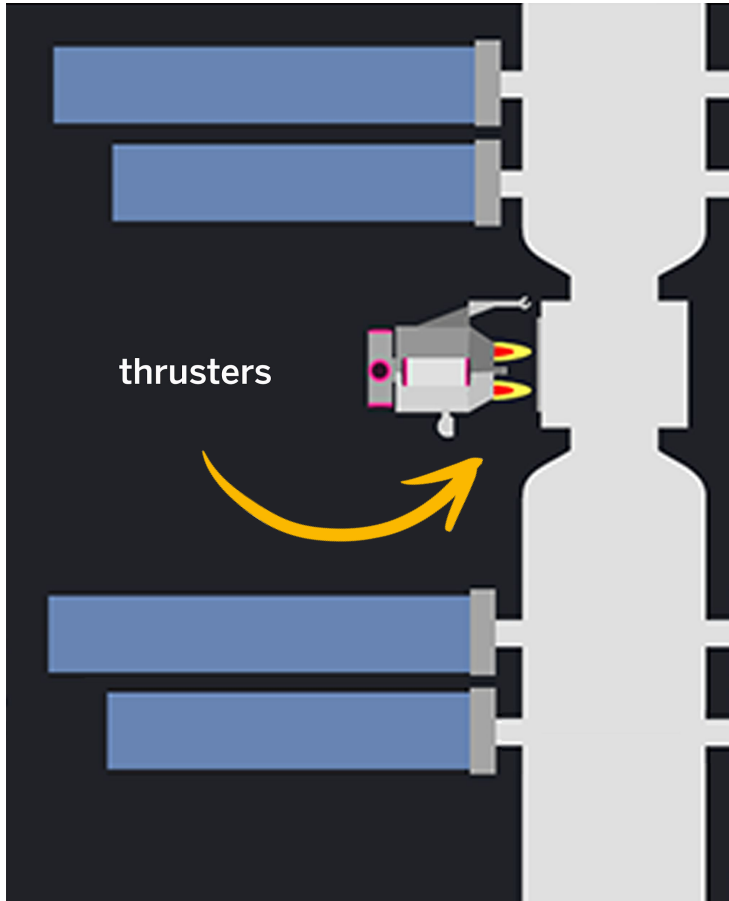
Thrusters fire to stop the pod.



Docking: pod connects to space station.

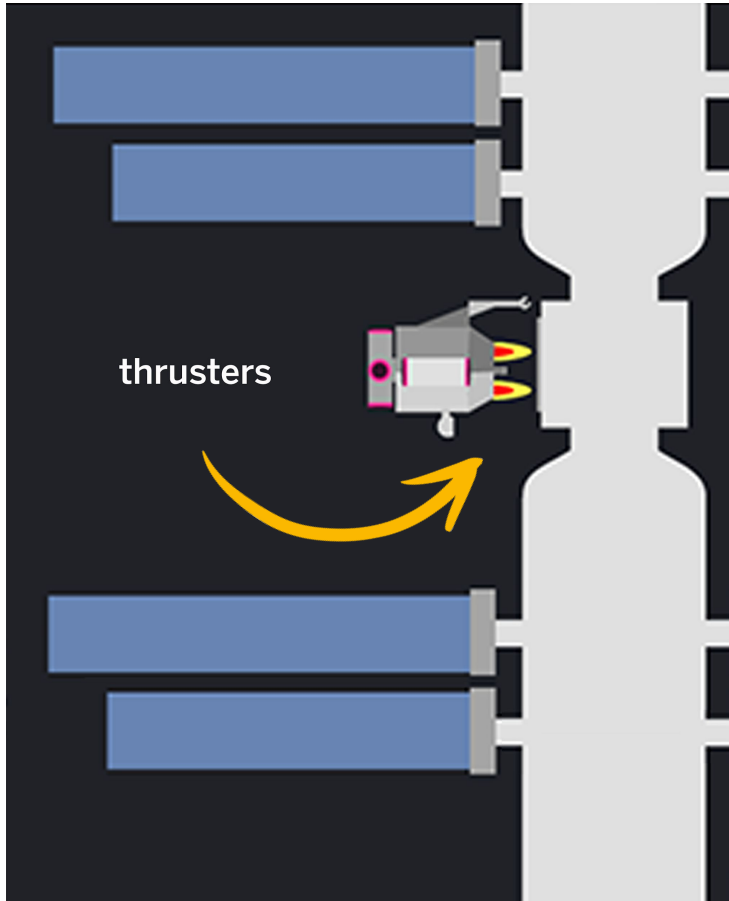
This image shows **what's usually supposed to happen** during asteroid collection missions.

In this mission, everything was supposed to be the same.



The **thrusters**, or small engines, were supposed to fire and stop the pod as it reached the space station so it could dock.

Instead, this pod moved in the **opposite direction**.



The space agency knows something was different—the thrusters did not have the effect they usually do. This pod moved away from the station instead of stopping and docking.



With your partner, read the claims on the next slide carefully and discuss them.

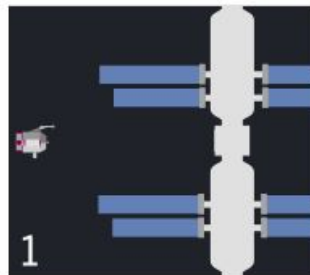
How are these claims different?

Which of these claims makes the most sense to you?

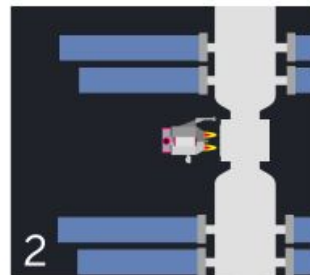
Normally, when the thrusters fire, the pod will stop, but this mission was different.

Claim 1: The thrusters caused the pod to move in the opposite direction.

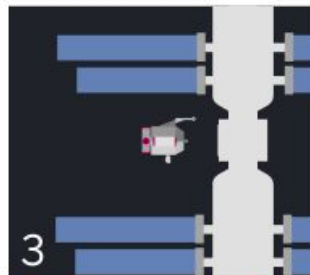
Claim 2: The thrusters only slowed the pod, it didn't stop; the pod hit the space station, which made it bounce and move in the opposite direction.



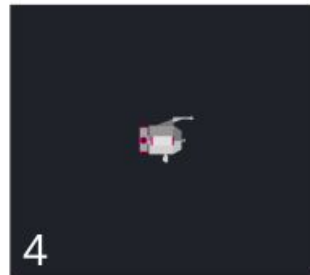
1 Pod approaches space station at medium speed.



2 Thrusters fire to stop the pod.



3 Thrusters cause pod to move in opposite direction OR pod hits space station and bounces off.



4 Pod travels far away from the space station.

We'll investigate this question over the next few lessons.

Chapter 1 Question

What caused the pod to change direction?

@Home Lesson 1

Adapted from: Amplify Science *Force and Motion* Lesson 1.2

Key Activities

- **Introducing the *Force and Motion* Unit:** Students are introduced to the unit problem—a space pod that did not change velocity as expected—and their role as student physicists.
- **Talk:** Students discuss what may have gone wrong with the space pod.
- **Do:** Students explore ways that can cause an object, such as a small ball, the lid of a jar, or a toy car, to change its motion.

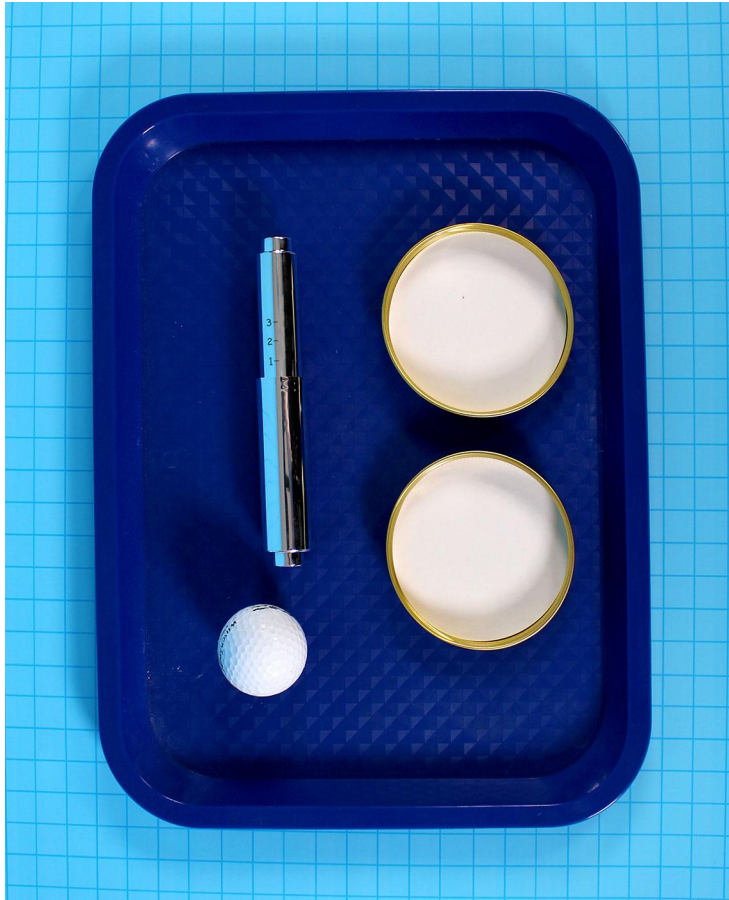
Ideas for synchronous or in-person instruction

While meeting, lead a full-class discussion about what may have happened to the pod after pairs discuss. If meeting in person, conduct the hands-on activity as in *Force and Motion* Lesson 1.2, Activity 3.

The first step in determining what happened to the pod is to come up with some possible reasons that it would change direction. To do that requires some exploring—testing objects to see what makes them experience a change in motion.



In this activity, to understand why the pod changed direction, we will **investigate how the motion of an object can change** and what causes these changes to happen.



You will need to find an **object you can roll or slide** on the floor or a table, for example, a small ball, the lid of a jar, or a toy car.

The objects don't have to be the same as what is pictured here. These are just examples.

Name: _____ Date: _____

Exploring Changes in Motion

Find an object you can roll or slide on the floor or a table, for example, a small ball or the lid of a jar. Use this object to investigate the guiding question. Record your notes in the table.

One possible answer has been provided to help you get started.

Guiding Question: *In what ways can the motion of an object change?*

- An object that is already moving can . . .
- An object that is not already moving can . . .

Example: An object that is already moving can slow down.

Find the **Exploring Changes in Motion** page.

Name: _____ Date: _____

Exploring Changes in Motion

Find an object you can roll or slide on the floor or a table, for example, a small ball or the lid of a jar. Use this object to investigate the guiding question. Record your notes in the table.

One possible answer has been provided to help you get started.

Guiding Question: *In what ways can the motion of an object change?*

- An object that is already moving can . . .
- An object that is not already moving can . . .

Example: An object that is already moving can slow down.



Use your materials to test out different ways that the **motion of an object can change.**

Record your notes in the **data table.**

You might have figured out these five ways that motion can change:

1. start moving
2. stop moving
3. speed up
4. slow down
5. change direction

This is an important word we will use.



velocity

speed in a particular direction

In this lesson and throughout the unit you will need to **access different pages** such as the Glossary on the next slide. Check with your teacher about how you will access materials and complete and submit work in this @Home Unit.

Force and Motion Glossary

cause: an event or process that leads to a result or change
causa: un evento o proceso que provoca un resultado o cambio

collision: the moment when two objects hit each other
colisión: el momento cuando dos objetos chocan entre sí

effect: a result or change that happens because of an event or process
efecto: un resultado o cambio que ocurre debido a un evento o proceso

equal: the same in quantity, size, degree, or value
igual: lo mismo en cantidad, tamaño, grado o valor

exert: to apply a force
ejercer: aplicar una fuerza

force: a push or a pull that can change the motion of an object
fuerza: un empujón o un jalón que puede cambiar el movimiento de un objeto

friction: a force between an object and the surface it is moving over
fricción: una fuerza entre un objeto y la superficie sobre la cual se está moviendo

infer: to reach a conclusion using evidence and reasoning
inferir: llegar a una conclusión usando evidencia y razonamiento

kinetic energy: the energy that an object has because it is moving
energía cinética: la energía que tiene un objeto porque se está moviendo

mass: the amount of matter that makes up an object
masa: la cantidad de materia que forma un objeto

matter: anything that has mass and takes up space
materia: cualquier cosa que tenga masa y ocupe espacio

opposite: acting or going in the reverse direction
opuesto: que actúa o va en la dirección inversa

Throughout the unit, you can look up vocabulary words in the **glossary** to help you understand what they mean. You can find this in your student sheets or in the [Amplify Library](#).

We will continue to explore how objects can **change velocity** over the next few lessons.

End of @Home Lesson



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UNIVERSITY OF CALIFORNIA, BERKELEY

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@Home Lesson 1

Adapted from: Amplify Science *Force and Motion* Lesson 1.2

Key Activities

- **Introducing the *Force and Motion* Unit:** Students are introduced to the unit problem—a space pod that did not change velocity as expected—and their role as student physicists.
- **Talk:** Students discuss what may have gone wrong with the space pod.
- **Do:** Students explore ways that can cause an object, such as a small ball, the lid of a jar, or a toy car, to change its motion.

Ideas for synchronous or in-person instruction

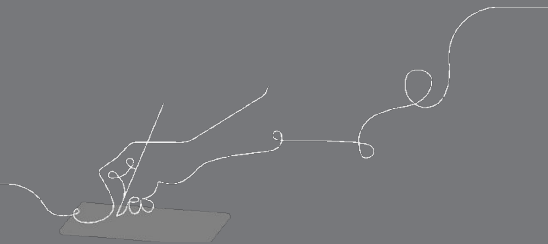
While meeting, lead a full-class discussion about what may have happened to the pod after pairs discuss. If meeting in person, conduct the hands-on activity as in *Force and Motion* Lesson 1.2, Activity 3.

Reflection

Revisit the vision you set for your students at the beginning of today's session.

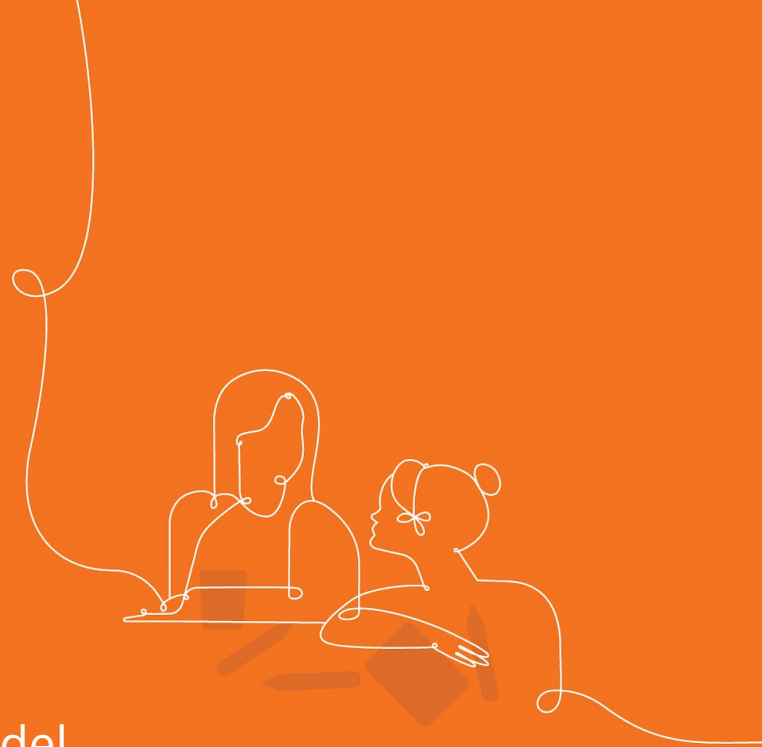
How will the Amplify Science@Home resources help you reach that goal?

e



@Home Resource Selection/ Guidance

Determine which resource you will use in accordance with your schools instructional model.



Which instructional model has your school adopted?

A



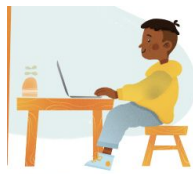




Hybrid Model

B

Remote Only

Sample instructional scenario




Hybrid pod model

	M-T	W	Th-F
Pod 1	In class 	Remote online class 	Remote 
Pod 2	Remote 	 	In class 

Sample instructional scenario

Hybrid pod model

Select 1-2 lessons for the week and decide the best instructional format for the different parts of the lesson

In class 	Remote online class 	Remote 
<ul style="list-style-type: none">● Hands-on investigations (option for teacher demo)● Discourse routines● Class discussions● Physical modeling activities	<ul style="list-style-type: none">● Sim demonstrations● Read-alouds● Shared Writing● Co-constructed class charts	<ul style="list-style-type: none">● @Home video lessons● @Home Unit activities● Reflective writing● Independently review

@Home Resources example use case

Hybrid Model: Teach live during in-person/synchronous time



Day 1

Remote

Assign: Lesson 1.1
@Home Video



Day 2

In-person

Teach: Lesson 1.2
live



Day 3

Synchronous

Teach: Lesson 1.3
using clips from
@Home Video



Day 4

Remote

Assign: Lesson 1.4
@Home
Packet/Slides



Day 5

In-person

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

@Home Resources example use case

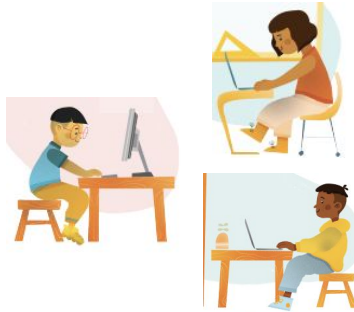
Remote Model: with synchronous & asynchronous learning



Days 1 & 2

Asynchronous

Assign: Lesson 1.1 @Home Video and sheets for students to work through on their own



Day 3

Synchronous

Teach: Lesson 1.2 using clips from the @Home Video



Day 4

Asynchronous

Assign: Lesson 1.3 @Home Packet or @Home Slides for students to work through on their own



Day 5

Synchronous

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

What resources can my students access?



Reading and digital tool uses

Options for student access

Access via curriculum (students using tablets or laptops):

- Digital tools
- Amplify Library

Access via @Home Videos (students using smartphones):

- Read-alouds of articles
- Screencast videos of digital tool uses

The image displays two overlapping digital learning windows. The background window is an interactive cell model with a yellow cell wall and a large yellow organelle labeled 'MITOCHONDRIA'. The text 'One of the Trillions of Cells in the Human Body' is visible. A 'Molecules' panel on the right lists: Water (blue triangle), Fiber (purple square), Amino Acid (blue triangle), Glucose (orange hexagon), Protein (blue triangle), Starch (red hexagon), Oxygen (green circle), and Carbon Dioxide (black diamond). The foreground window is a video player titled 'Cells: The Basic Unit of Life'. The video content shows a microscopic view of a cell with numerous small purple structures inside. The video player interface includes a volume icon, a search icon, and a language selector set to 'Español'.

@Home Units: student experience

@Home Slides and @Home Packets

- Student-friendly text
- Supportive images (photos and illustrations)
- Activity instructions
- Prompts for writing, discussion, and reflection
- Embedded links to supplementary material

AmplifyScience
Geology on Mars @Home Lesson 5

In Lesson 4 you read the article "Investigating Landforms on Venus" and made annotations.

Think about this question: Why do you think it is important to annotate while you read science texts?

Annotations help you **keep track of**, and **remember**, your thinking. The next step in Active Reading is discussing your annotations.

TALK

Find the article you read and annotated in Lesson 4.

You'll need a partner to talk with. Your partner could be a classmate on the phone or someone at home with you.

1. **Choose** several interesting questions, connections or ideas to share with a partner. Tag each one with **#share**
2. **Talk about** your chosen annotations with a partner. Tag each annotation with **#discuss** if you were

Go to the **Second Read of "Investigating Landforms on Venus"** activity

Read and annotate the assigned sections.

Then, answer the questions.

Second Read of "Investigating Landforms on Venus" page or [Lesson 2.7, Activity 2](#)

@Home Units: student experience

Embedded links in @Home Slides and @Home Packets

Links to curriculum resources:

- Amplify Library
- Sims and digital tools
- Student platform

Links to videos:

- Hands-on demonstrations
- Read-alouds

The image shows a presentation slide titled "Geology on Mars @Home Lesson 5". The slide is divided into two main sections. The top section features an article titled "Investigating Landforms on Venus" with a small image of a spacecraft and a person's portrait. The bottom section shows a video player with a large image of a spacecraft's view of Venus, showing a rocky surface and a spacecraft with triangular antennas. The video player has a play button and a volume icon. To the right of the slide, there is text: "Find the article you read and annotated in Lesson 4." and "You'll need a partner to talk with. Your partner could be a classmate on the phone or someone at home with you." Below the video player, there is a link: "Investigating Landforms on Venus" printed article or [Lesson 2.1 Activity 4](#). The link is circled in orange.

@Home Units: Slides and Student Sheets

Completing written work

Written work can be submitted through the **Amplify Science student platform** or completed using Student sheets.

Student sheets are **not used** with @Home Packets. Students can complete their written work right in the packets.

Name: _____ Date: _____

Second Read of "Investigating Landforms on Venus"

Gerya and his team wanted to answer the question: What formed the rouse on Venus? Their idea was that the higher surface temperatures and thinner coat of Venus caused the rouse to form.

- Reread the final three paragraphs of the "Investigating Landforms on Venus" article.
- Then, highlight or add annotations to parts of the text that relate to the questions next to the article.
- Using your annotations, answer the questions below.

How were the rouse on Venus similar to the landforms in Gerya's computer model?

How did the results of Gerya's model provide evidence for what formed the rouse on Venus?

Geology on Mars @Home Lesson 5
©2018 Amplify Science

The screenshot shows a digital reading interface. At the top, there are navigation tabs for '2 Second Read of Investigating Landforms', '3 Investigate the Flowing Water Model', '4 Investigate the Flowing Water Model', and '5 Investigate the Flowing Water Model'. The main content area is titled 'Investigating Landforms on Venus' and features a photograph of a rocky landscape with a bright light source. Below the photo, there is a caption: 'This photo, taken by a spacecraft called Venera, shows the rocky surface of Venus. The triangles in the photo are part of the spacecraft.' To the right of the photo, there are two text boxes with questions: 'How were the rouse on Venus similar to the landforms in Gerya's computer model?' and 'How did the results of Gerya's model provide evidence for what formed the rouse on Venus?'. Each question has a large empty box for the student's answer.



Go to the **Second Read of "Investigating Landforms on Venus"** activity

Read and annotate the assigned sections.

Then, answer the questions.

5 min break



Plan for the day

- Framing the day
 - Welcome and introductions
 - Reflection and vision setting
 - Revisiting the Amplify Approach
- Unit Internalization
- @Home Resources Internalization
 - @Home Units
 - @Home Videos
 - Lesson Level Internalization
 - Resource selection/Guidance
- Guided Planning
 - Planning to Teach using @Home
- Reflection and closing



@Home Unit lesson #: 6		
Date(s) to administer: Thursday, 10/15 & Tuesday, October 20		
Investigation question: Why can an animal live where it does?		
@ Home Unit lesson (asynchronous)		
<p>Key activities from @ Home lesson:</p> <ul style="list-style-type: none"> ● Reviewing Key Concepts and Vocabulary: Students review what they have figured out so far in the unit. ● Introducing Investigating: Students are introduced to ideas about how they will investigate questions about plants in this unit. ● Do: Students set up an investigation to compare whether or not a garlic clove 	<p>Dates to administer:</p> <p>Thursday, 10/15</p>	<p>Other notes:</p>
<p>needs water to grow into a garlic plant.</p> <ul style="list-style-type: none"> ● Draw and Write: Students record their first observation of garlic cloves with water and with no water. 		

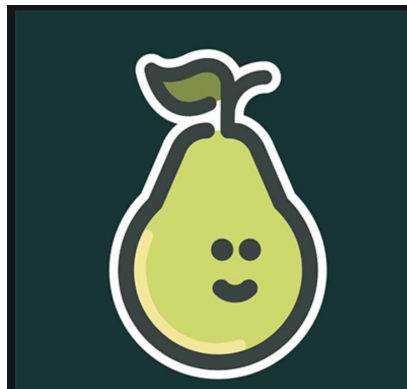
Corresponding synchronous ideas		
<p>In-person or remote?</p> <p><input type="checkbox"/> In-person X</p> <p><input type="checkbox"/> Remote</p>	<p>Synchronous activity:</p> <p>Engage students in setting up the investigation of garlic with water and with no water, and then recording their initial observations.</p> <p>Dates(s) to administer:</p> <p>Tuesday, October 20</p>	<p>Other notes:</p> <p>Refer to materials and preparation section of this corresponding lesson in Teacher's Guide</p> <p>Take out slides 14 onwards from Home Slides. Ask students to propose an investigation set-up. Edit slide 14 to include this.</p>
@Home Videos		
<p>Use for synchronous or asynchronous?</p> <p><input type="checkbox"/> Synchronous X</p> <p><input type="checkbox"/> Asynchronous X</p> <p><input type="checkbox"/> Neither</p> <p>If using, note lesson & activity/activities:</p> <p>Use hands-on preparation video</p>	<p>View for best practices?</p> <p><input type="checkbox"/> Yes X</p> <p><input type="checkbox"/> No</p> <p>If yes, notes some best practices:</p> <p>Tips on how to set-up investigation</p>	<p>Other notes:</p> <p>Send investigation video to students who missed in-person demonstration</p>

Corresponding original lesson(s)		
<p>Differentiation strategies:</p> <ul style="list-style-type: none"> ● additional teacher modeling in a small group setting ● strategic partnering to provide students who need more support with a peer to check in with ● write a few sentences that more fully describe what they have recorded about their investigation students who need more challenge 	<p>Additional synchronous activity notes:</p> <p>Locate the following materials (<i>Needs of Plants and Animals</i> kit)clear plastic cups, 9 oz.</p> <ul style="list-style-type: none"> ● clamp lamp ● grow light lightbulb ● 2 large planter trays ● automatic light timer ● grow light lightbulb ● 2 large planter trays ● automatic light timer <p>Need to provide 2 index cards (3" x 5"), 1 garlic bulb (intact), 2 garlic cloves for each pair of students and 2 for demonstration purposes, pitcher with water, large mixing bowl, large spoon, pair of scissors.</p>	<p>Use any original slides?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Other notes:</p> <p>Slides 21 onwards for in-person</p>
Differentiation plan		
<p>Synchronous, remote ideas:</p> <ul style="list-style-type: none"> ● additional teacher modeling in Zoom break-outs 	<p>Synchronous, in-person ideas:</p> <ul style="list-style-type: none"> ● strategic partnering to provide students who need more support with a peer to check in with 	<p>Asynchronous ideas:</p> <ul style="list-style-type: none"> ● send scaffolded versions of student sheets to students who need more support

Preparing to teach: Step 3

3rd party applications

1. Edit original **Classroom slides** (for synchronous instruction) or **@Home slides** (synchronous or asynchronous) with usage/inclusion of **apps** such as:
 - Jamboard
 - Pear Deck
2. Upload assignments on to **Google Classroom**



Google Classroom

3rd party apps to use		
<p>Using a Jamboard ?</p> <p><input type="checkbox"/> Yes X</p> <p><input type="checkbox"/> No</p> <p>Notes:</p> <p>To answer the question: How can we find out if the garlic plant needs water to live?</p> <p>Using a Pear Deck slide(s)?</p> <p><input type="checkbox"/> Yes X</p> <p><input type="checkbox"/> No</p> <p>Notes:</p> <p>For Critical juncture in activity 1 of original lesson</p>	<p>Google Classroom:</p> <p>Which @Home Resources to upload?</p> <p><input type="checkbox"/> @Home Unit pdf X</p> <p><input type="checkbox"/> @Home Unit slides X</p> <p><input type="checkbox"/> @Home Video url X</p> <p><input type="checkbox"/> Other</p> <p>Notes:</p> <p>Hands-on lesson video for students who missed in-person instruction</p>	<p>Other apps & notes:</p> <p>Flip Grid for audio responses?</p>

Sample Jamboard



We will share our ideas here on how we would test to see if a garlic plant needs water to live.

Sample Pear Deck slide

Lesson 1.7: Setting Up an Investigation

Activity 1

The Garden



A monarch caterpillar **cannot live** in this place. Why not?

Students, write your response!

Pear Deck Interactive Slide
Do not remove this bar

TEMPLATE LIBRARY

Our Template Library

Explore and add premade content to your lesson



ASK STUDENTS A QUESTION

Adds a question to your current slide:



Text



Choice



Number



Website



Draw



Draggable™

ADD AUDIO

Record or upload audio files for your

Sample Google Classroom entry

Instructions

Student work



Home Lesson 6



Amplify Science • 5:00 PM

100 points

Hello Scientists!

Please complete this home lesson and come prepared to discuss your ideas on how to test if a garlic plant needs water to live.



Copy of Needs of Plants and...
Google Slides

Class comments



Add class comment...



Sample Seesaw Slide

Sample Student's Post

In response to: [Lesson 1.3 : Activity 1 Describing Tortoise Structures](#)



Amplify Science - Structure-Function

A tortoise uses its mouth to eat leaves .

A tortoise uses its eyes to see .

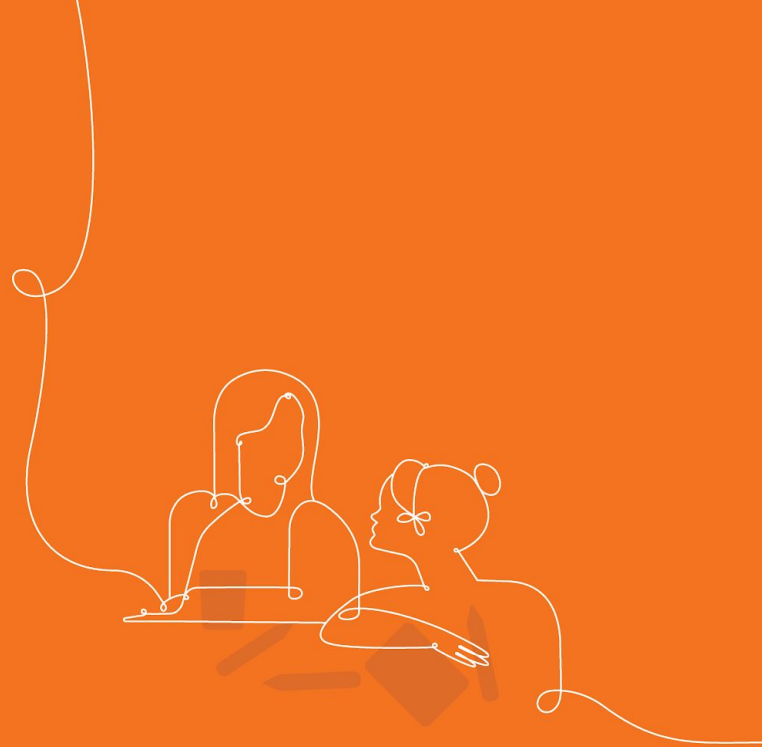
A tortoise uses its toenails to protect .

A tortoise uses its shell to dig .

October 21, 2020, 9:46 PM

Independent Planning Preparation

Begin planning for upcoming instruction



AmplifyScience

Hello Teacher Sinha-Das
17616-0401@amplify.net

Log Out

Go To My Account

Classroom Language Settings

ELA Resources

Job Postments

LA Science Program Guide

Science Program Guide


FLORIDA EDITION

Standards Map


Help

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1st Grade ▾ **Step 1**



22 Lessons
Animal and Plant Defenses



22 Lessons
Light and Sound



22 Lessons
Spinning Earth

AmplifyScience Program Hub

LAUNCH PROGRAMS

TEACHER SINHA-DAS


Step 2

Welcome, Amplify Science Educators!

The Amplify Science Program Hub consists of resources, tools, and advice to help you make the most of getting started with your program. We've also provided tips and guidance on how to use Amplify Science in a remote and hybrid learning model.

We're excited to partner with you on this journey and can't wait to get started! Please select the button below that best describes your role:

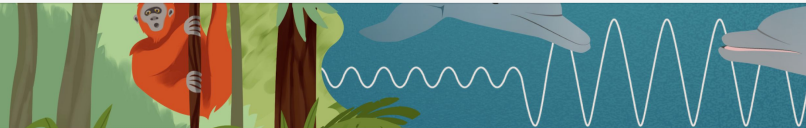
I am a Teacher **I am a Leader**



AmplifyScience Program Hub

LAUNCH PROGRAMS

TEACHER SINHA-DAS



Hello, Teacher!

Search

Welcome

Remote learning: Amplify Science@Home

Hands-on investigations support

Unit extensions

Using this site for self study

Program Overview

Navigation and Materials

Welcome, Amplify Science teacher!

Let's get started! This site will provide you with the knowledge and skills you need to start teaching with Amplify Science. Here you will:

- learn to navigate the digital Teacher's Guide
- become familiar with unit resources
- get planning tips, and
- find our new, flexible remote and hybrid learning supports

This site will be continuously updated, so please check back regularly.

Step 3

AmplifyScience Program Hub

LAUNCH PROGRAMS

TEACHER SINHA-DAS

Hello, Teacher!

Search

Welcome

Remote learning: Amplify Science@Home

About Amplify Science@Home

Grade-level resources

@Home Resources Orientation Videos

Additional resources

Hands-on investigations support

Unit extensions

Using this site for self study

Program Overview

Navigation and Materials

Grade-level resources

Select your grade below to access the @Home resources. Please do not share or distribute these materials outside of your district.

- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Grade 6
- Grade 7
- Grade 8

Step 4 (scroll down and choose your grade)

@Home Resources Orientation Videos

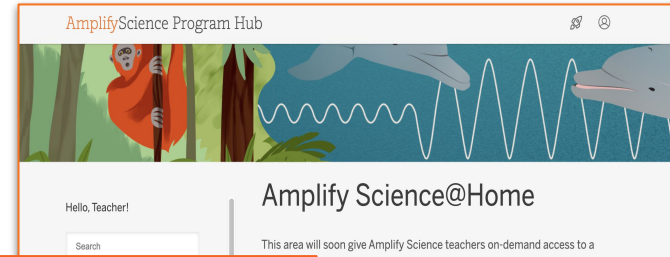
Check out these videos for an overview of what's available, plus tips and strategies for teaching with Amplify Science@Home this back to school.

Preparing to teach

3-step method

1. Program Hub: @
Home Resources
2. Teacher's Guide:
Lesson Brief
3. 3rd party
applications

Step 1



Step 2



Step 3



Guided Planning

Independent planning with the opportunity to ask questions

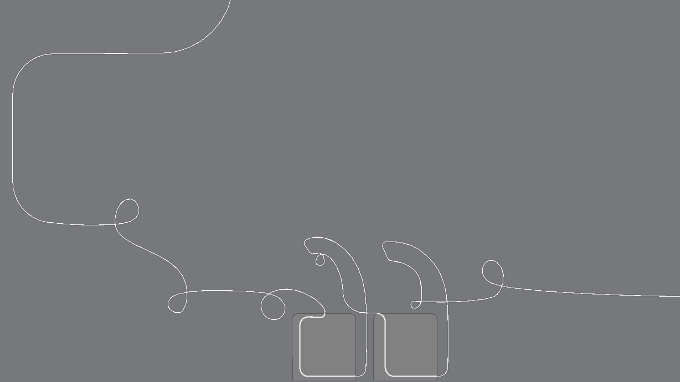


Guided Planning Work Time

Pages 14-16

- Use the planning template and @Home resources (found on the Program HUB) to plan an upcoming lesson
- While planning consider the information below to select the appropriate resources:
 - Do you have more, less, or the same time as last year for Science?
 - Your classroom instructional model (Hybrid or Remote)
 - Student's access to technology (packet or slides/sheets)
 - The 3rd party applications will you pair with Amplify resources (if any)?
 - Do I want to add a hands on component? (model via video? Or complete during in person synchronous instruction)

Questions?



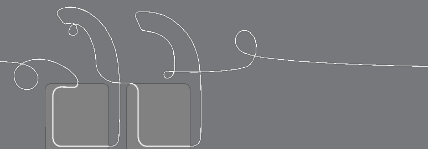
Plan for the day

- Framing the day
 - Welcome and introductions
 - Reflection and vision setting
 - Revisiting the Amplify Approach
- Unit Internalization
- @Home Resources Internalization
 - @Home Units
 - @Home Videos
 - Lesson Level Internalization
 - Resource selection/Guidance
- Guided Planning
 - Planning to Teach using @Home
- Reflection and closing



Revisiting Our Objective:

- Leverage your understanding of your upcoming unit to make instructional decisions about remote or hybrid learning using the Unit Guide and Amplify Science@Home resources.
- Apply new understanding of the unit to determine which @Home resources best meet the needs of students and give them the most robust experience in figuring out the phenomenon of the unit.
- Plan for the next week of instruction using the @Home resources, your class schedule, instructional format, and internalize the planning protocol to use for future planning.



Revisiting our objectives

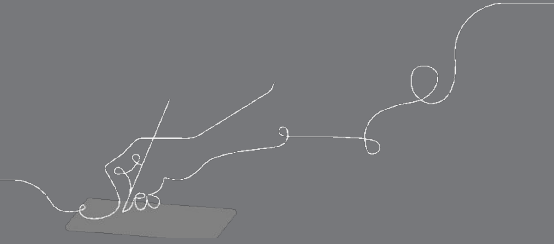
Do you feel ready to...

- Select the Amplify Science@Home resources that best fit your instructional context?
- Internalize tips and strategies for remote and hybrid instruction using Amplify Science@Home?
- Plan how you will leverage Amplify Science@Home resources in a remote setting for back-to-school?

1- I'm not sure how I'm going to do this!

3- I have some good ideas but still have some questions.

5- I have a solid plan for how to make this work!

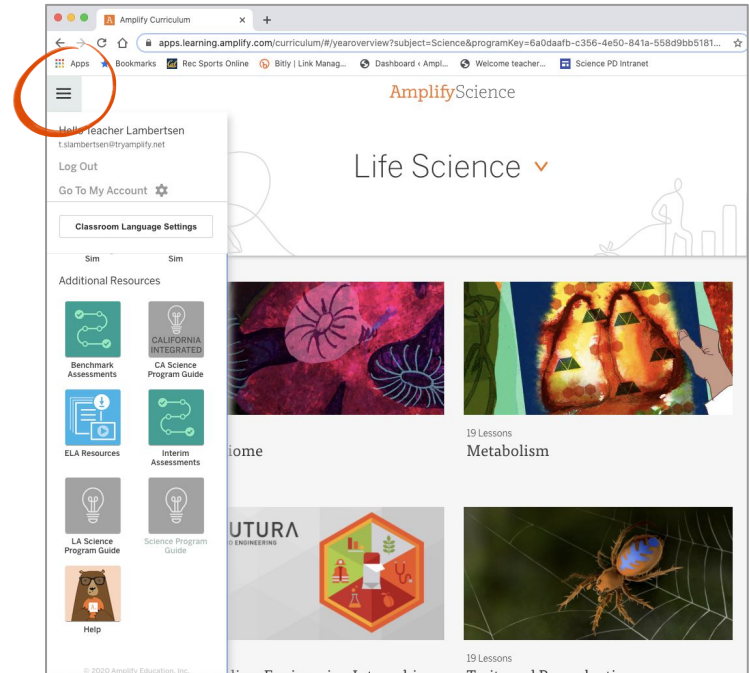


Amplify Science Program Hub

A new hub for Amplify Science resources

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

science.amplify.com/programhub



New York City Resources Site

<https://amplify.com/resources-page-for-nyc-6-8/>



Amplify.

Amplify Science Resources for NYC (K-5)

Welcome! This site contains supporting resources designed for the New York City Department of Education Amplify Science adoption for grades K-5.

UPDATE: Summer 2020

Introduction

Getting started resources

Planning and implementation resources

Admin resources

Parent resources

COVID-19 Remote learning resources 2020

Professional learning resources

Questions

UPDATE: Summer 2020

Account Access: It's an exciting time for Amplify Science! We have access to the many updates and upgrades in our curriculum until late August/early September when we will update our rosters from STARS.

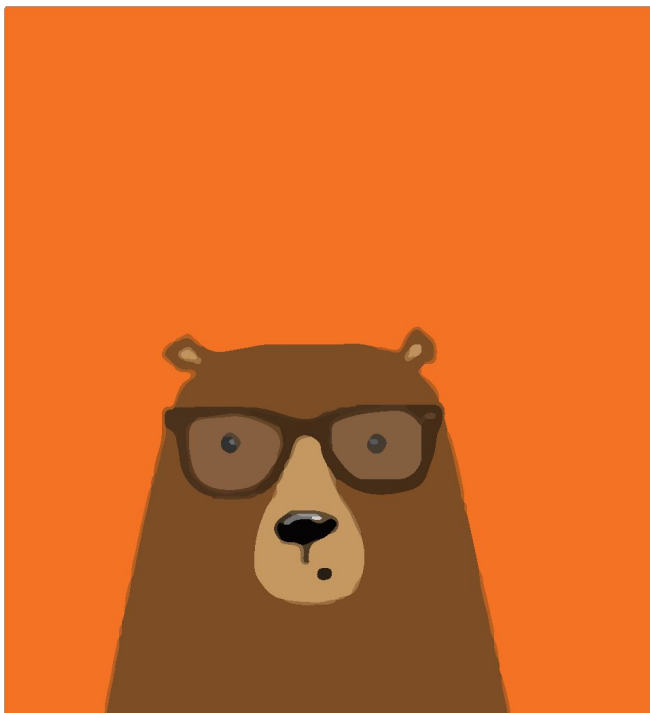
Any schools or teachers new to Amplify Science in 20/21 are encouraged to contact our Help Desk (1-800-823-1969) for access to your temporary login for summer planning.

Upcoming PL Webinars: Join us for our Summer 2020 Professional Learning opportunities in July for NEW teachers and administrators and August for RETURNING teachers and administrators. Links to register coming soon!

Site Resources

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

Additional Amplify resources



Program Guide

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

<https://my.amplify.com/programguide/content/national/welcome/science/>

Amplify Help

Find lots of advice and answers from the Amplify team.

my.amplify.com/help