



Amplify Science

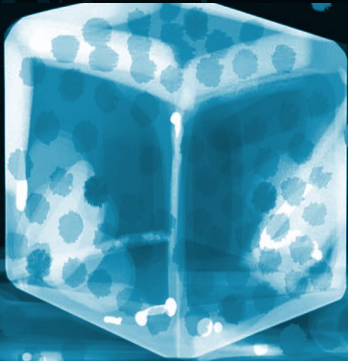
New York City

AmplifyScience

Unpacking Phenomena

Grades 6-8

AmplifyScience



Who's in the Room?

Represent your Borough!



Share your name, role, borough.

1- Brooklyn North

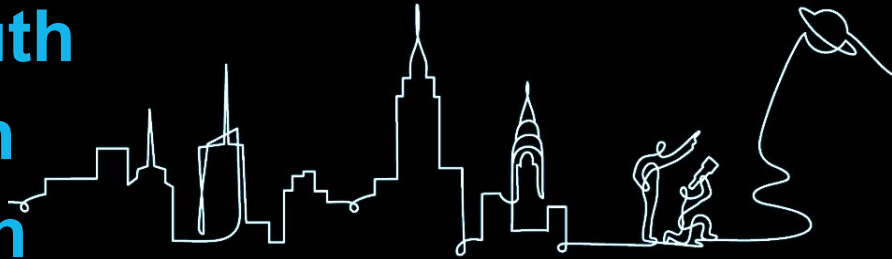
2- Brooklyn South

3- Queens North

4- Queens South

5- The Bronx

6- Staten Island



Workshop Norms



- Please keep your camera on, if possible.
- Take some time to orient yourself to the platform



- 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



- Be an active participant - chat, ask questions, discuss, share!

Workshop Goals

- Explore and begin unpacking your next Amplify Science Unit
- Build your facility using the planning and implementation resources.
- Develop a plan for implementing the core unit within your class schedule and instructional format



Plan for the day

- Approach Essentials
- Unit Storyline
- Unit Planning
- Reflection and closing





Questions
Reflections
Connections

Planning Notes

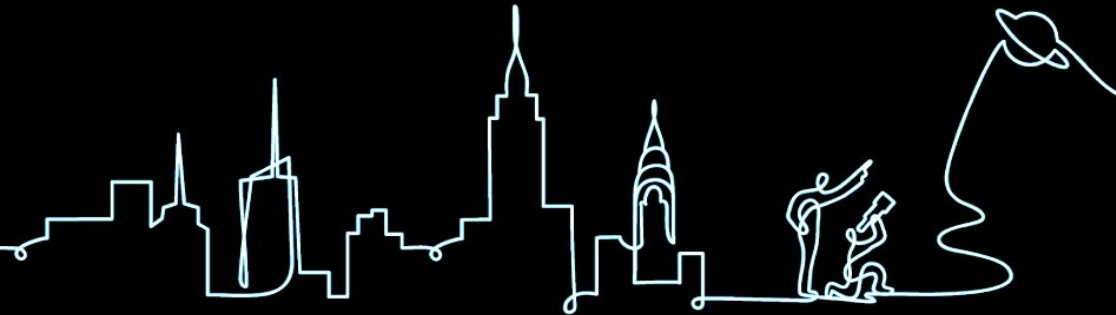
Note Taking Opportunities

A version of this presentation will be available to you.

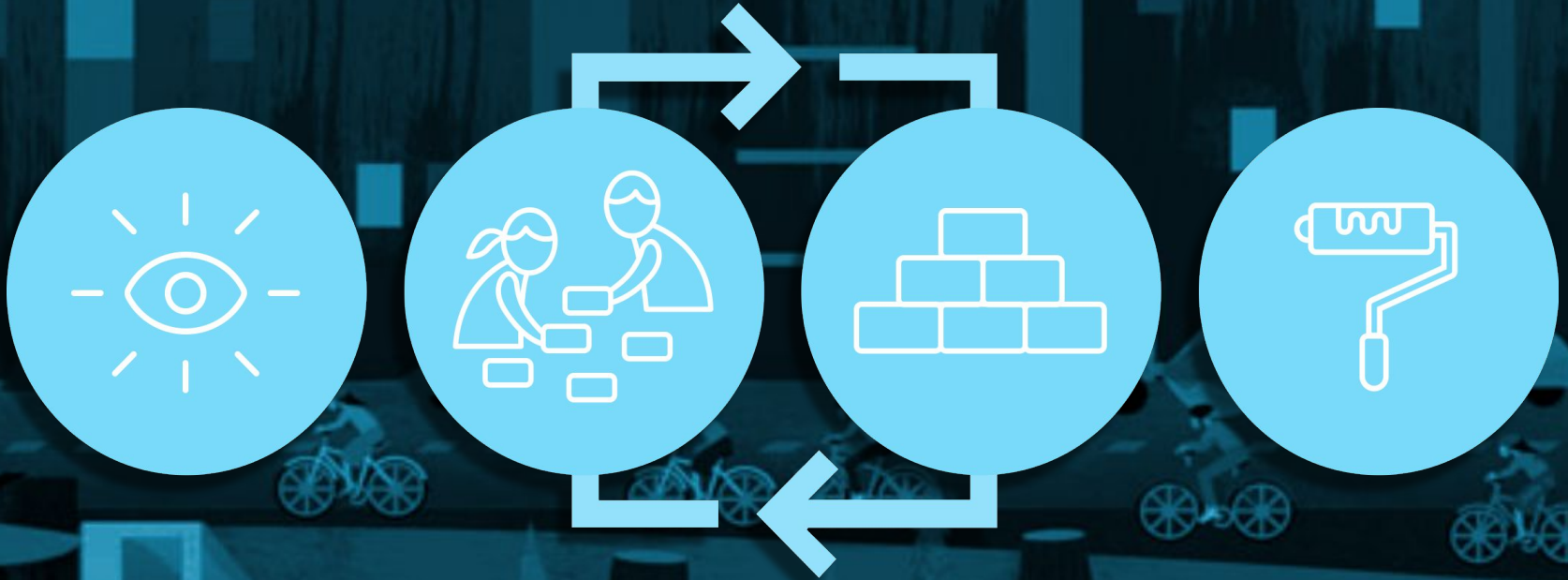
However, you may want to record some of the presenter's comments and suggestions from your colleagues!

Reflect and Share

Amplify Science units are designed around storylines. What does this mean for the student experience?

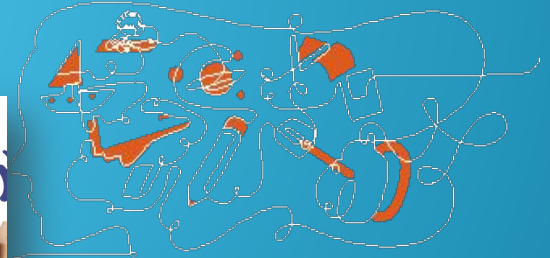
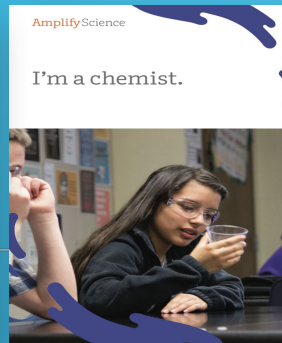


Revisiting The Amplify Science approach

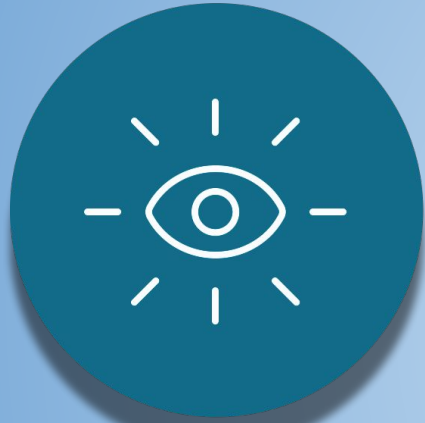


Problem-based deep dives

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



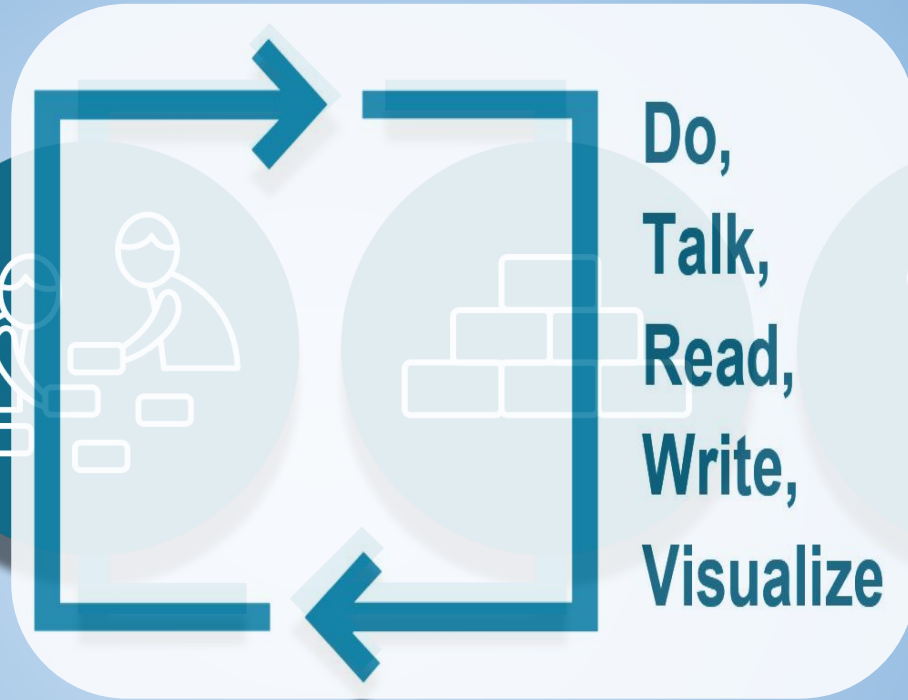
The approach



**Introduce a
phenomenon/real
world problem**



**Collect evidence
from
multiple sources**

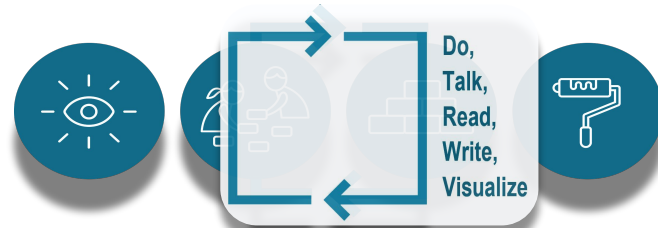


**Build
increasingly
complex
explanations**



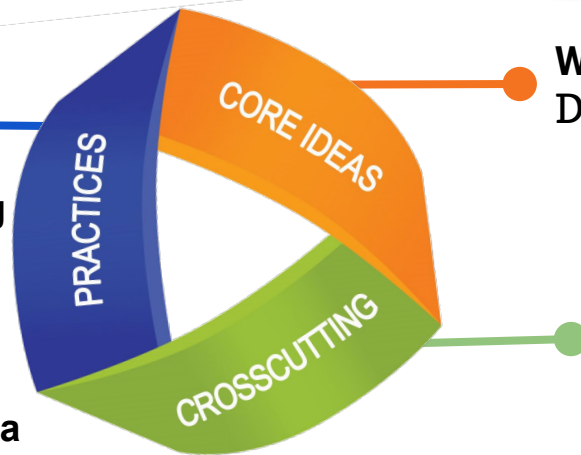
**Apply knowledge to
solve a different
problem**

NGSS/NYSSLS 3D



What scientists do Science and Engineering Practices

1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information



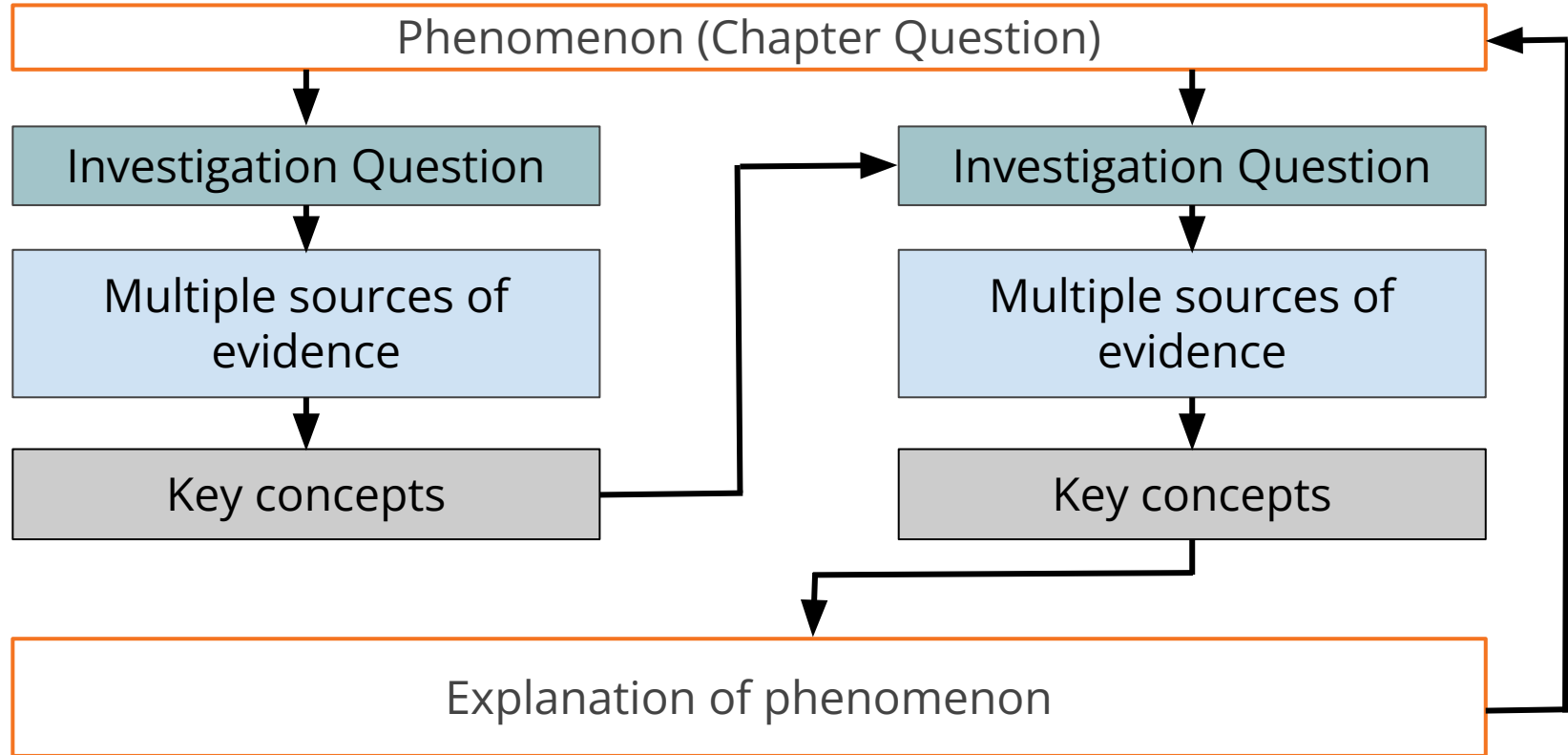
What scientists want to know Disciplinary Core Ideas

How scientists make sense of, organize and connect...

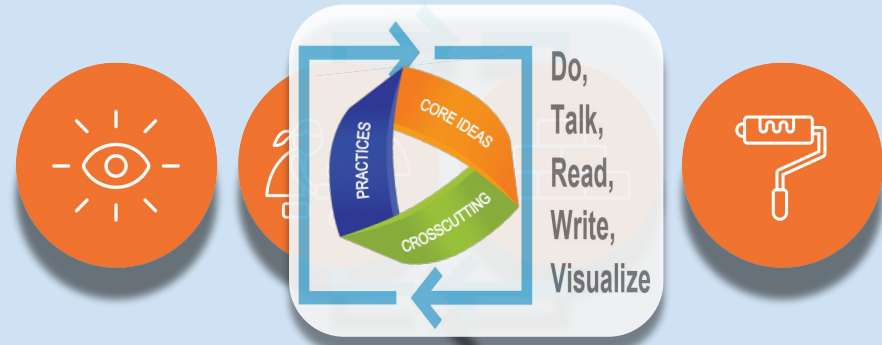
Crosscutting Concepts

- patterns
- cause and effect
- scale, proportion, and quantity
- systems and system models
- energy and matter
- structure and function
- stability and change

Coherent storylines






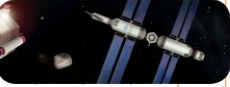

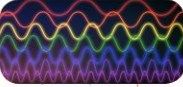




Practicing Multiple modalities and using three dimensions to figure out not just learn about!



A scientific **phenomenon** is an **observable event** that occurs in the universe that we can use science ideas to explain or predict.

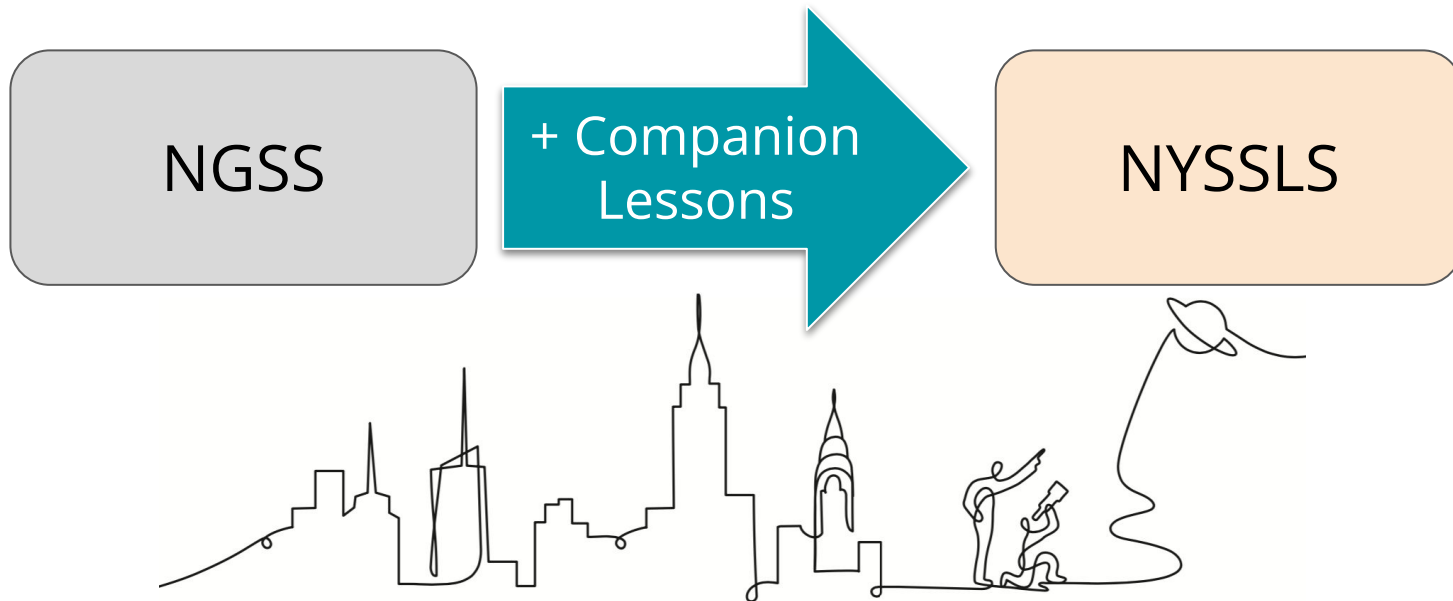
Amplify Science NYC 21-22

Sept.			Oct.			Nov.			Dec.			Jan.			Feb.			Mar.			Apr.			May			Jun.											
9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22	11/29	12/6	12/13	12/20	1/3	1/10	1/17	1/24	1/31	2/7	2/14	2/28	3/7	3/14	3/21	3/28	4/5	4/11	4/25	5/2	5/9	5/16	5/23	5/30	6/6	6/13	6/20	6/27
																																						
Launch Unit: Harnessing Human Energy			Thermal Energy			Populations and Resources			Matter and Energy in Ecosystems			Weather Patterns			Ocean, Atmosphere, and Climate			Earth's Changing Climate																				
																																						
Launch Unit: Microbiome			Metabolism			Phase Change			Chemical Reactions			Plate Motion			Engineering Internship: Plate Motion			Rock Transformations			Engineering Internship: Earth's Changing Climate																	
																																						
Launch Unit: Geology on Mars			Earth, Moon, and Sun			Force and Motion			Engineering Internship: Force and Motion			Magnetic Fields			Light Waves			Traits and Reproduction			Natural Selection			Evolutionary History														

Partnership: Amplify-LHS-NYC DOE

Amplify Science

Amplify Science NYC Edition



New York City Resources site

Amplify Science
Resources for NYC (6-8)



THE LAWRENCE
HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

Amplify.

—
Welcome! This site contains supporting resources designed for the New York City Department of Education Amplify Science adoption for grades 6–8.

**No Login Required:
Bookmark this website!**



Amplify.



Questions?

Plan for the day

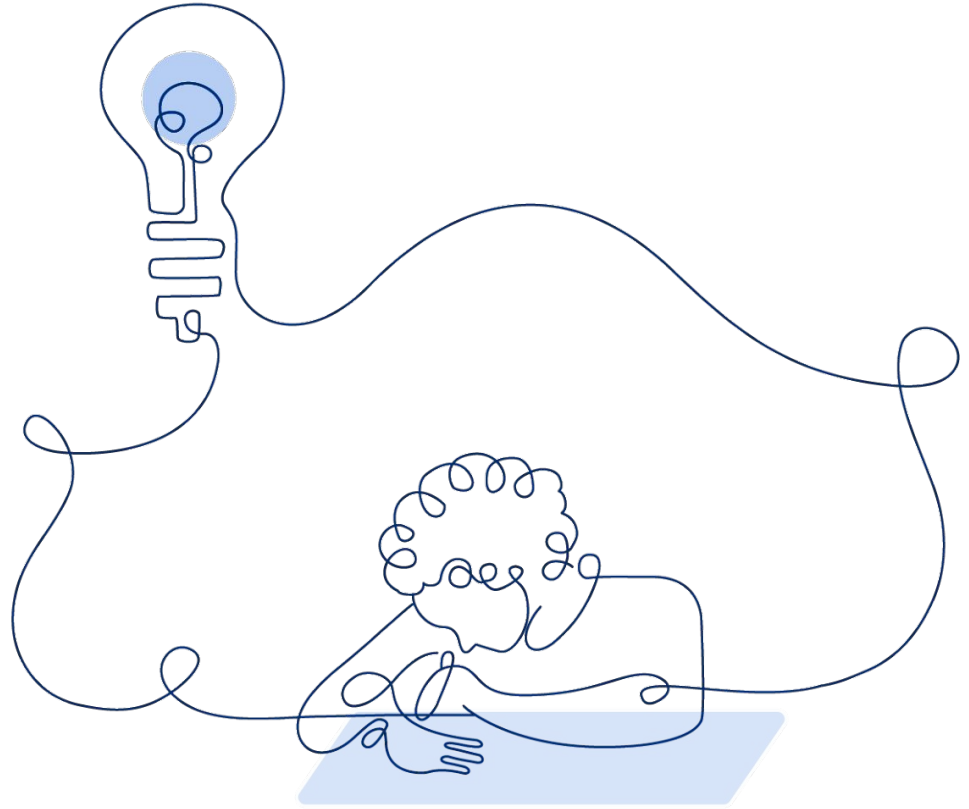
- **Approach Essentials**
- **Unit Storyline**
- **Unit Planning**
- **Reflection and closing**



Introducing the phenomenon

Amplify Science units are designed around complex phenomena that drive student learning through the unit.

How is this related to coherence?



G6 Populations and Resources



I'm an Ecologists!

Glacier Sea has seen an alarming increase in the moon jelly population. In the role of student ecologists, students investigate reproduction, predation, food webs, and indirect effects to discover the cause.

Populations and Resources



**Anchor
Phenomenon:
The size of
the moon jelly
population in
Glacier Sea
has increased
dramatically.**



G7 Phase Change



I'm a Chemist!

Taking on the role of student chemists working for the fictional Universal Space Agency (USA), students investigate the mystery of a disappearing methane lake on Titan (see unit map).

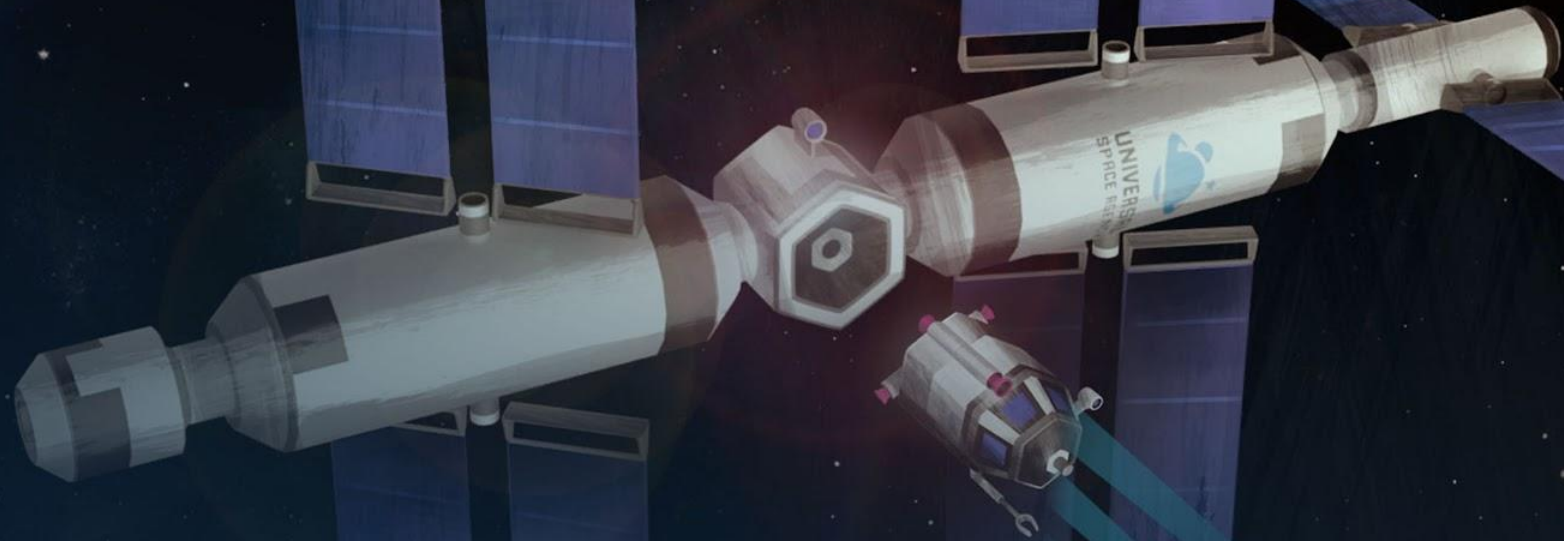
Phase Change



**Anchor
Phenomenon:
Images taken
by a space
probe show
that a methane
lake on Titan
disappeared.**



G8 Force and Motion



I'm a Physicists!

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. Students explore principles of force, motion, mass, and collisions as they solve this mystery (unit map).

Force and Motion



Anchor

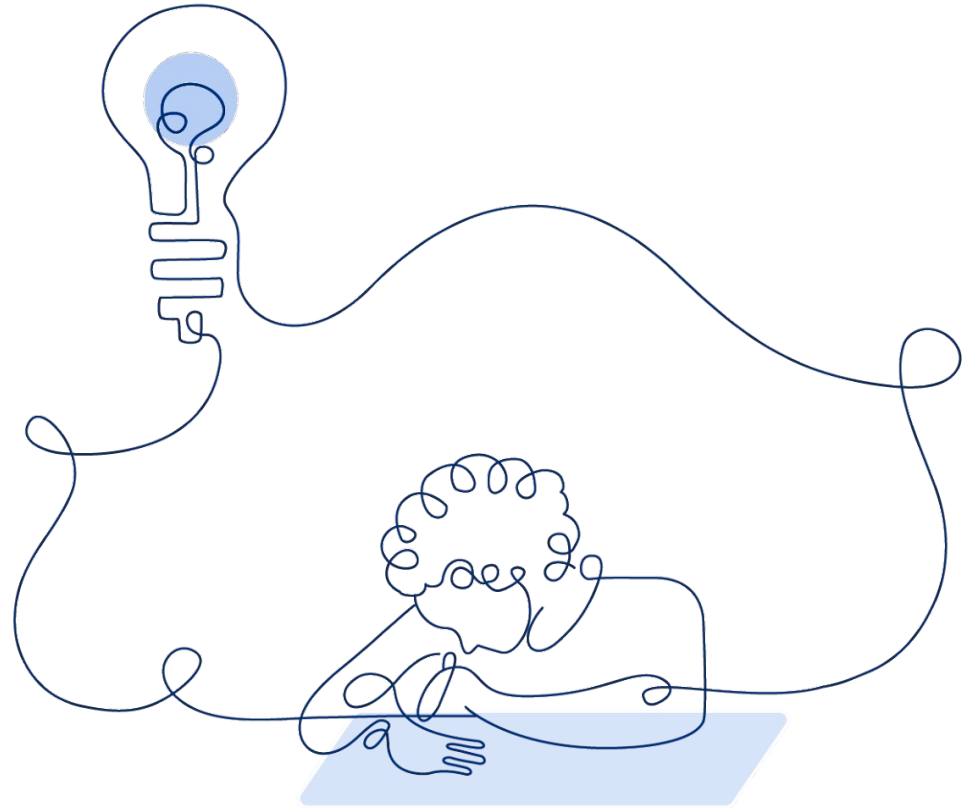
Phenomenon:

Rather than stopping and docking at the space station, the asteroid sample-collecting pod moved in the opposite direction.

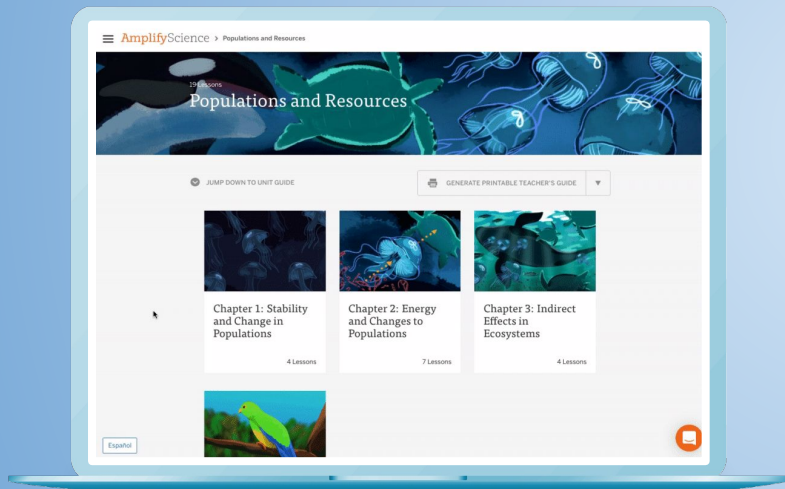


Unit phenomena

Besides the Anchor Phenomenon, what other phenomena do you think students will be grappling with throughout this unit? Where do you find this information?



Digital Teacher's Guide

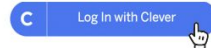


Login to Your Digital Teacher's Guide

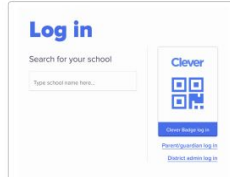
1. Go to learning.amplify.com
 - Reminders:
 - Use the latest version of Safari or Chrome
 - Supported devices: iPad 5 or more recent, MacBooks, Windows laptops or desktops, and Chromebooks
 - Pro Tip:** Bookmark this url in your browser



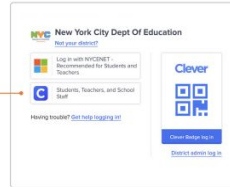
2. Select **Log In with Clever**



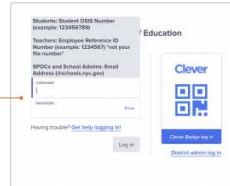
3. Search for and **select your school by name or DBN** (ex. 00M000 - PS/IS School Name)



4. Select **Students, Teachers, and School Staff**



5. Enter your district **Employee ID number** in both **username** and **password** fields



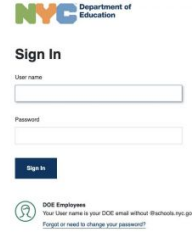
6. Click **Log In**

Clever

TeachHub: Teacher Login Guide



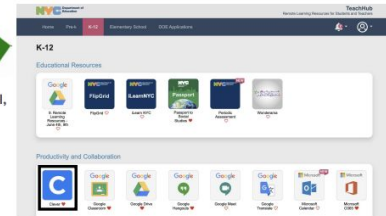
1. Head to the DOE's new Remote Learning portal at teachhub.schools.nyc.gov



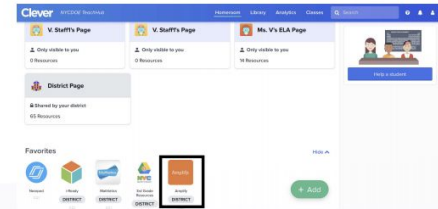
2. Enter your DOE username and password

**For teachers, this is your DOE email address with the @school.nyc.gov removed.*

3. Select the **K12** tab at the top of your portal, then click on the Clever app



4. Click on the **Amplify** icon



Clever

Questions? Visit support.clever.com.



Questions?

Guided Navigation Unit Level

AmplifyScience > Populations and Resources

19 Lessons
Populations and Resources

JUMP DOWN TO UNIT GUIDE

GENERATE PRINTABLE TEACHER'S GUIDE

Chapter 1: Stability and Change in Populations
4 Lessons

Chapter 2: Energy and Changes to Populations
7 Lessons

Chapter 3: Indirect Effects in Ecosystems
4 Lessons

Español

**What is the student role?
What will students figure out in Chapter 1?**

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



Printable Resources



Article Compilation



Coherence Flowchart



Copymaster Compilation



Flexextension Compilation



Investigation Notebook



NGSS Information for Parents and Guardians



Print Materials (8.5" x 11")



Print Materials (11" x 17")

Offline Preparation

What are the Unit and Chapter Questions ?

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



Printable Resources



Article Compilation



Coherence Flowchart



Copymaster Compilation



Flexextension Compilation



Investigation Notebook



NGSS Information for Parents and Guardians











Print Materials (8.5" x 11")











Print Materials (11" x 17")

Offline Preparation

**By the end of
the unit what
will the
students
figure out?**

Planning for the Unit	Printable Resources
Unit Overview ▾	 Article Compilation
Unit Map ▾	 Coherence Flowchart
Progress Build ▾	 Copymaster Compilation
Getting Ready to Teach ▾	 Flexextension 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

What science concepts do students need to figure out in order to build an explanation of the unit phenomena?

Planning for the Unit		Printable Resources
Unit Overview	▼	 Article Compilation
Unit Map	▼	 Coherence Flowchart
Progress Build	▼	 Copymaster Compilation
Getting Ready to Teach	▼	 Flexextension 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

Reflect-Type-Chat! Share and Learn

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

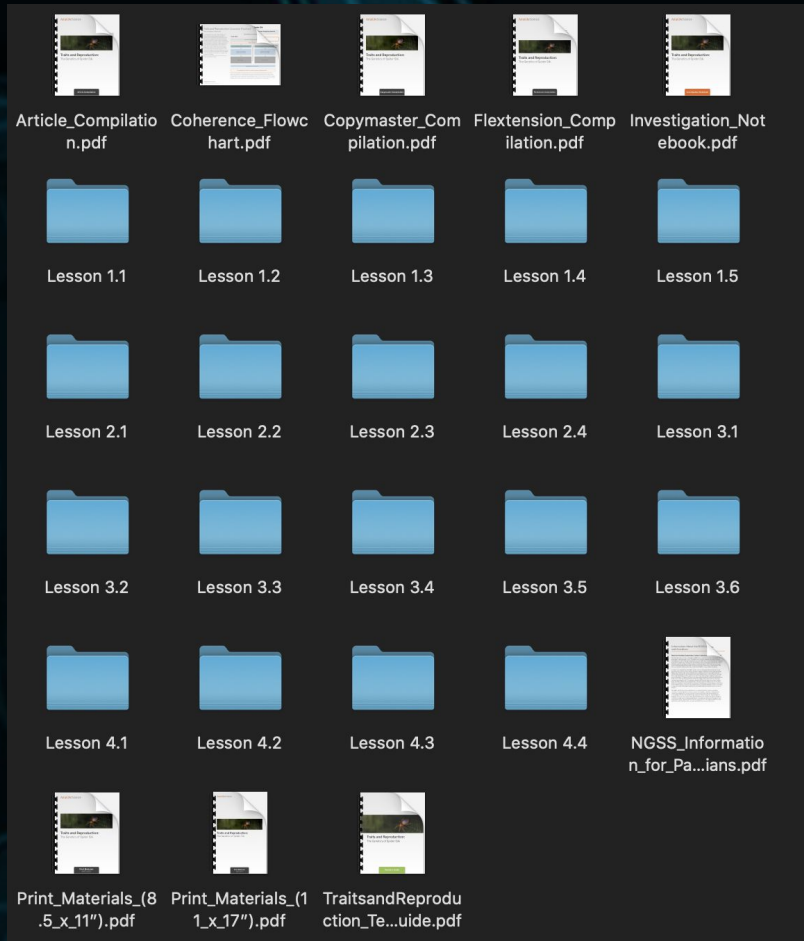


Questions?

Plan for the day

- **Approach Essentials**
- **Unit Storyline**
- **Unit Planning**
- **Reflection and closing**





Planning Tip!
Remember to
Download the
Offline Guide
Materials

Trajectory of your Unit!

Review the Standards and Goals document for this unit:

1. What are the focal performance expectations?
2. In what ways are the multiple modalities connected to the cross-cutting concepts?
3. How does this unit fit into the Amplify Science curriculum?

Standards
and Goals



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

Coherence

Please respond in the chat

How do students get from the **question** at the beginning of the chapter to the **explanation** at the end of the chapter in Amplify Science?

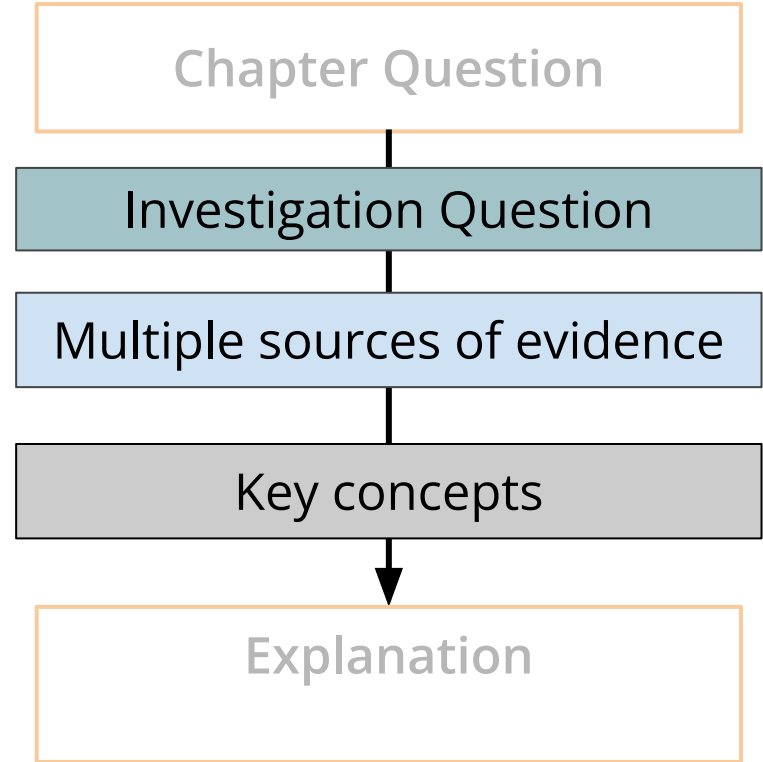
Chapter Question: Why did the food coloring separate into different dyes?



Explanation: The different dyes that are mixed together have different properties (colors), so they are made of different molecules. The molecules in the mixture that are carried up the paper by the water are attracted to the water and mix with it. As the water travels up the paper, different kinds of molecules travel different distances because their molecules are different sizes or have a different attraction to the paper.

Constructing science knowledge

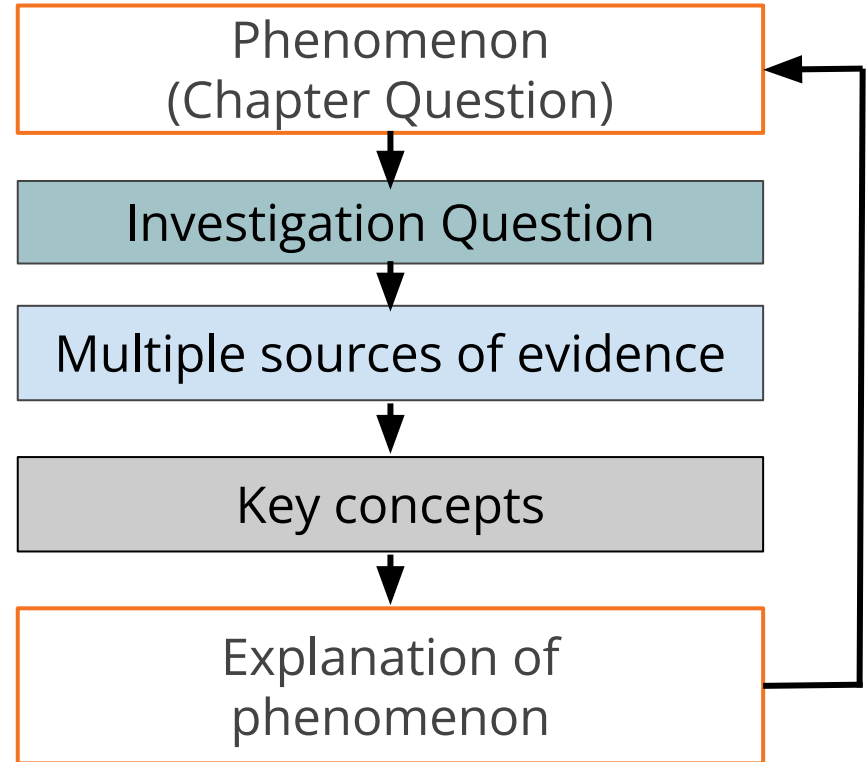
In order to progress through a unit storyline, students figure out general science ideas they can use to explain the phenomenon.



Coherence flowchart

Respond in the chat

Share your **prior knowledge** about the coherence flowchart, and how you've used it as a tool in your planning and teaching.



Planning with the Coherence Flowchart?

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



Printable Resources


 Article Compilation

 Coherence Flowchart

 Copymaster Compilation

 Flexextension Compilation

 Investigation Notebook

 NGSS Information for Parents and Guardians

 Print Materials (8.5" x 11")

 Print Materials (11" x 17")

Offline Preparation

Skim the Unit Coherence Flowchart

Think about how you might use the Coherence Flowchart to summarize learning throughout Chapter 1.

What are the connections between the Evidence sources/reflection opportunities and 3D learning? Note: also view Lesson 3D statements

Populations and Resources: Too Many Moon Jellies

The problem students work to solve

Chapter 1 Question

What caused the size of the moon jelly population in Glacier Sea to increase?

Investigation Questions

How do births and deaths in a population affect its size? (1.3, 1.4)

Evidence sources and reflection opportunities

- Use the Sim to observe what can happen to an organism in a population (1.2)
- Use a token to find out how births and deaths in a population can affect the population size (1.3)
- Watch a video demonstrating stability and change in a system (1.3)

Key concepts

- Within a population organisms are always being born and dying (1.2)
- A system can be stable even as things are being added to and removed from it. If the amounts being added and being removed are not equal, then the system will change. (1.3)
- If the number of births and deaths in a given time are equal, then the population size will be stable. (1.3)
- If there are more births than deaths in a given time, then the size of the population will increase. If there are fewer births than deaths, then the size of the population will decrease. (1.3)

Application of key concepts to the problem

- Evaluate the quality of evidence about the moon jelly population (1.4)
- Use the paper Modeling Tool to show the cause of the moon jelly population increase (1.4)

Explanation that students can make to answer the Chapter 1 Question

There are always births and deaths happening in the jelly population. If the population increased it means that there were more births than deaths. This could have happened because births increased or because deaths decreased.

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Force and Motion: Docking Failure in Space

Problem Students Work to Solve

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

Chapter 1 Question

What caused the pod to change direction?

Investigation Questions

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

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

Evidence Sources and Reflection Opportunities

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

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)

Application of Key Concepts to Problem

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

Explanation That Students Can Make to Answer the Chapter 1 Question

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.

Phase Change: Titan's Disappearing Lakes

Problem students work to solve

Why did the methane lake on Titan disappear?

Chapter 1 Question

What happened to the liquid in Titan's lake?

Investigation Questions

How does the appearance of a substance change when it changes phase? (1.2)

What happens to the molecules of a substance when it changes phase? (1.3-1.6)

Evidence sources and reflection opportunities

- Observe phase change videos (1.2)
- Discuss the properties of substances in different phases using unit vocabulary (1.2)
- Observe evaporation and condensation and draw predictions of what a solid, liquid, and gas looks like at the molecular scale (1.3)
- Use the Sim to investigate phase changes at the molecular scale (1.3)
- Read an article from *Weird Water Events* (1.4)
- Revisit an excerpt from *Weird Water Events* (1.5)
- Use the Modeling Tool to show what happens to an ice pop when it melts (1.5)

Key concepts

- A solid holds its shape and does not take the shape of its container. (1.2)
- A gas has no visible shape and fills its container. (1.2)
- A liquid flows and can take the shape of its container. (1.2)
- A solid keeps its shape because its molecules only move in place, not around each other. (1.5)
- A liquid can flow because its molecules move around, not away from each other. (1.5)
- A gas does not have a visible shape because gas molecules can move away from each other. (1.5)
- A phase change is when the molecules that make up a substance experience a change to their freedom of movement. This phase change involves a macro-scale change in appearance. (1.5)

Application of key concepts to problem

- Use the Modeling Tool to show what would happen if the lake on Titan froze or evaporated and write a short explanation to support each model (1.6)

Explanation that students can make to answer the Chapter 1 Question

The methane lake on Titan began as a liquid. The liquid methane could flow because the molecules can move around one another, but not apart from one another. If the lake froze, the liquid methane would become a solid. Solid methane would keep its shape because the molecules in a solid can only move in place, but they cannot move around one another or apart. If the lake evaporated, the liquid methane would have become a gas. Methane gas would not have a visible shape because gas molecules can move away from one another.

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Questions?









Planning for the Assessment System



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.

Locate the Progress Build in your unit

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")
	 Print Materials (11" x 17")

Level 3

Level 2

Level 1

G6 Populations and Resources

1.1

Pre-unit
assessment



Critical Junctures

End-of-Unit
Assessment



Level 1:

There are always births and deaths occurring in a population. Changes in the number of births and deaths can change the size of a population.

Level 2:

A change in the number of births and deaths in a population can be caused by a change in the size of its resource populations or consumer populations.

Level 3:

A change in the number of births and deaths in a population can be caused by a change in the size of a population other than its resource or consumer population.

6-5 Assessment System

Pre-unit
assessment

Critical Juncture

End-of-Unit
Assessment

Level 3

Level 2

Level 1





Exploring

Lesson 1.1:

Pre-Unit Assessment

Explore the Pre-unit Assessment

Directions:

- Navigate to your grade levels upcoming unit
 - Click on the Unit Map to determine the phenomena student investigate
 - Open Lesson 1.1
 - Review and explore the pre-unit assessment
- Note: notice the differing formats offers.

Focus Questions:

1. How does this assessment help you determine student learning goals?
2. What next steps would you take after receiving the results of the assessment?

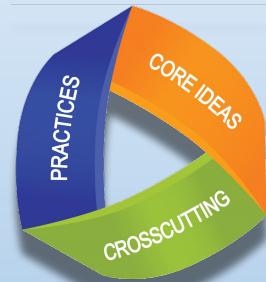


Read through the assessment system documents.

How are assessments working as a system?

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



Lesson 4.2, Activity 3:

Student-to-Student
Discussion: Discussing
Evidence and Claims

Assessment Type:

On-the-Fly Assessment

Evaluation Guidance:

- Look for/Now What?
notes

DCI:

- LS4.A: Evidence of Common Ancestry
and Diversity

SEPs:

- Practice 4: Analyzing and Interpreting
Data
- Practice 7: Engaging in Argument from
Evidence
- Practice 8: Obtaining, Evaluating, and
Communicating Information

CCC:

- Stability and Change



Questions?

For your Pedagogical Consideration!

Review the Science Background document for this unit. Focus on the pedagogical considerations. In your notes, summarize your findings.

Unit Overview



Unit Map



Progress Build



Getting Ready to Teach



Materials and Preparation



Science Background



Standards at a Glance



Science
Background



Planning for Digital Apps

Read the Apps in your Unit Section of the Teacher References



Teacher References

Lesson Overview Compilation



Standards and Goals



3-D Statements



Assessment System



Articles in This Unit

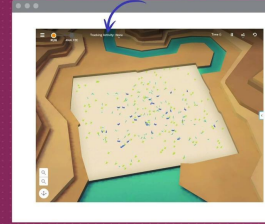


Apps in This Unit



**Locate the Simulation
Explanation Video.**
Watch the video before you
begin working with the
simulation. Share in chat
where you located the video!

At the top of the screen is the **Tracking Activity** drop down. You can use it to highlight all organisms that are eating, reproducing, or dying.



Press on a molecule to **track it!** You can also track **two molecules** at once.





Questions?

Science Seminar



Considering claims and evidence



Participating in the Science Seminar



Writing an argument

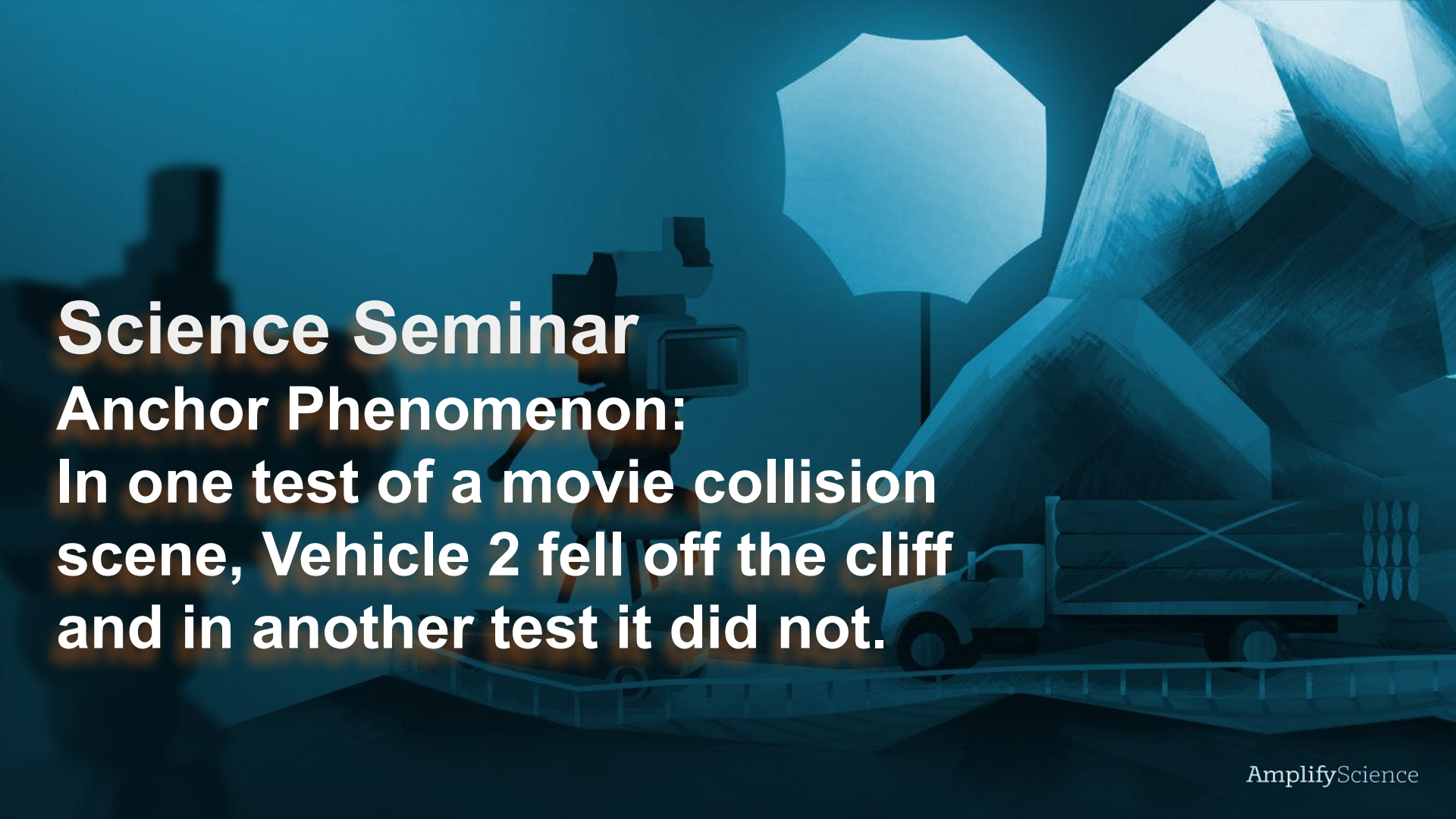


A blue-tinted photograph of an orange-bellied parrot perched on a branch. The bird is facing left, and its body is mostly obscured by the blue tint. The background is a blurred, dark blue landscape.

Science Seminar
Anchor Phenomenon:
The size of an orange-bellied
parrot population on an island
off the coast of Australia has
decreased.

Science Seminar
Anchor Phenomenon:
A liquid oxygen
machine is
malfunctioning.





Science Seminar
Anchor Phenomenon:
In one test of a movie collision scene, Vehicle 2 fell off the cliff and in another test it did not.

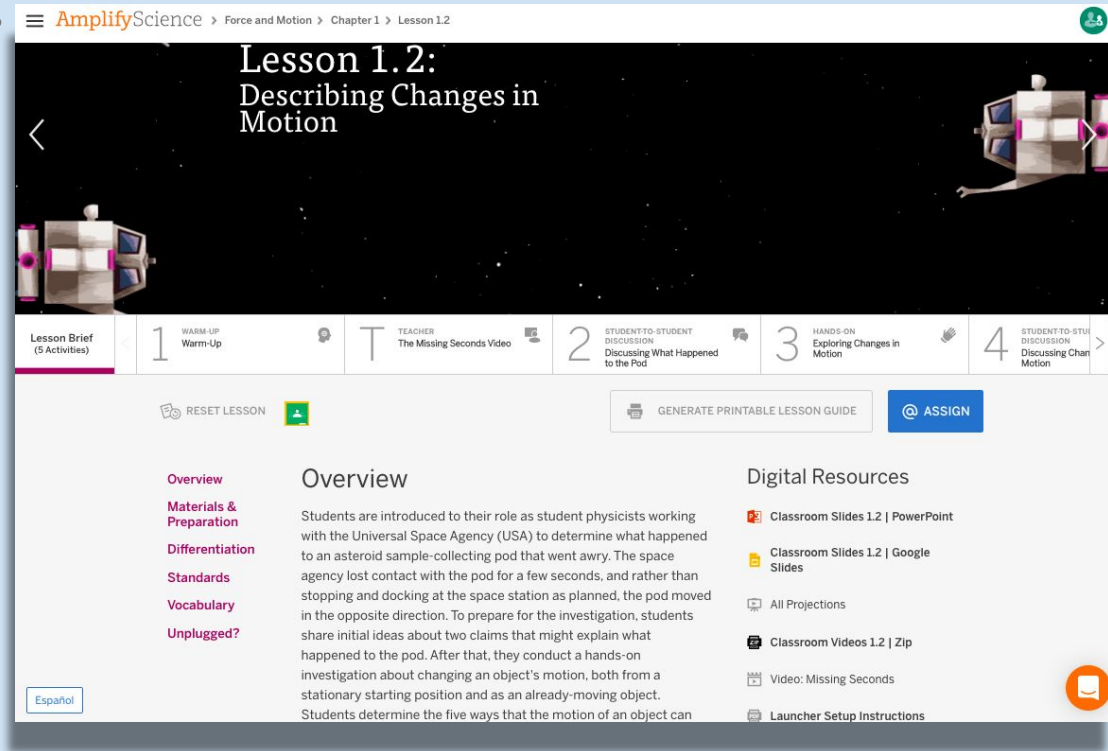
Lesson Exploration and Planning



Science Seminar Lesson Exploration

Use the Lesson Brief for:

1. Locate information about lesson timing
2. Determine the materials and preparation
3. Locate and record differentiation suggestions
4. Note the available Digital Resources



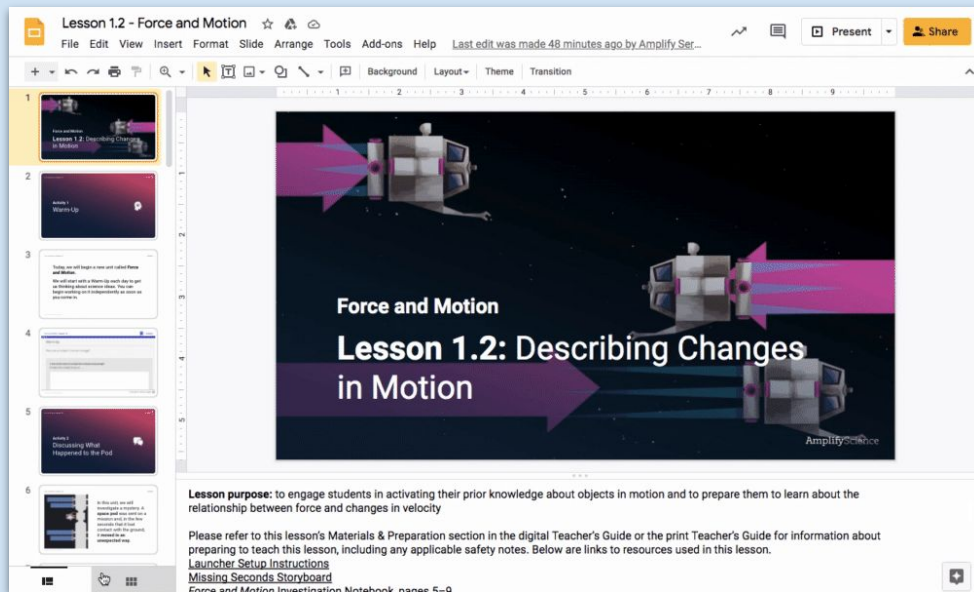
The screenshot shows the AmplifyScience interface for Lesson 1.2: Describing Changes in Motion. The page is titled "Lesson 1.2: Describing Changes in Motion" and features a navigation bar with four main sections: 1. WARM-UP Warm-Up (5 Activities), 2. STUDENT-TO-STUDENT DISCUSSION Discussing What Happened to the Pod, 3. HANDS-ON Exploring Changes in Motion, and 4. STUDENT-TO-STUDENT DISCUSSION Discussing Changes in Motion. Below the navigation bar, there are buttons for "RESET LESSON" and "GENERATE PRINTABLE LESSON GUIDE", along with a blue "ASSIGN" button. The main content area is divided into three columns: "Overview" (with sub-sections: Overview, Materials & Preparation, Differentiation, Standards, Vocabulary, Unplugged?), "Digital Resources" (with links to Classroom Slides 1.2 | PowerPoint, Classroom Slides 1.2 | Google Slides, All Projections, Classroom Videos 1.2 | Zip, Video: Missing Seconds, and Launcher Setup Instructions), and a "Spanish" button in the bottom left corner. The background of the lesson page features a space station and a pod in space.

Using Classroom Slides as a planning tool

Focus: Science Seminar

Teacher tip: Classroom Slides are a great visual summary of a lesson. Many teachers download and flip through a lesson's Classroom Slides deck to preview what happens in the lesson.

Download and use the slides to review the science seminar lessons in your unit.



The screenshot shows a digital presentation interface for a lesson titled "Lesson 1.2 - Force and Motion". The interface includes a top menu bar with options like File, Edit, View, Insert, Format, Slide, Arrange, Tools, Add-ons, and Help. Below the menu is a toolbar with various editing tools. The main content area displays a slide with a dark background and a space-themed illustration. The slide features a satellite-like object with a purple arrow pointing towards it from the left, and another purple arrow pointing away from it to the right. The text on the slide reads "Force and Motion" and "Lesson 1.2: Describing Changes in Motion". The AmplifyScience logo is visible in the bottom right corner of the slide. On the left side of the interface, there is a vertical list of slide thumbnails, with the first slide highlighted in yellow. Below the main slide, there is a section for the lesson purpose and additional resources.

Lesson purpose: to engage students in activating their prior knowledge about objects in motion and to prepare them to learn about the relationship between force and changes in velocity

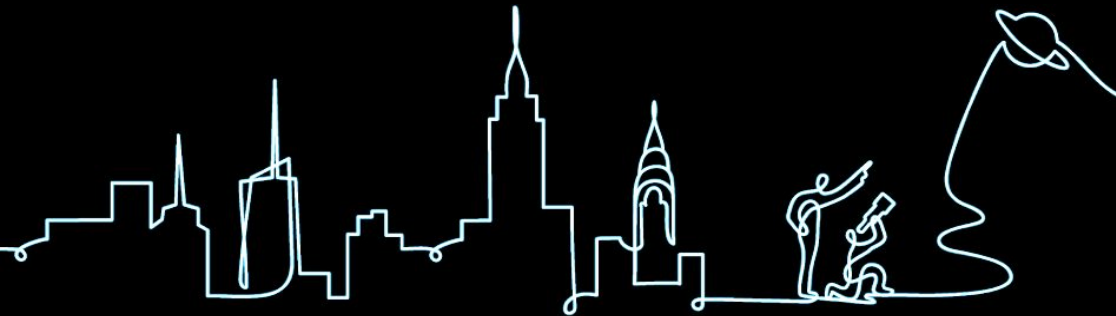
Please refer to this lesson's Materials & Preparation section in the digital Teacher's Guide or the print Teacher's Guide for information about preparing to teach this lesson, including any applicable safety notes. Below are links to resources used in this lesson.

- [Launcher Setup Instructions](#)
- [Missing Second's Storyboard](#)
- [Force and Motion Investigation Notebook, pages 5-9](#)




Questions?

Additional Resources



The Program Hub with supplemental and self study resources



The screenshot shows the AmplifyScience website interface for 5th Grade. At the top, the logo "AmplifyScience" is on the left, and "5th Grade" with a dropdown arrow is in the center. Below the header, there are four course cards arranged in a 2x2 grid. Each card features a colorful illustration and text indicating the number of lessons and the course title. A small mouse cursor is visible over the top-left corner of the first card. In the bottom right corner of the interface, there is a small red square icon with a white document symbol.

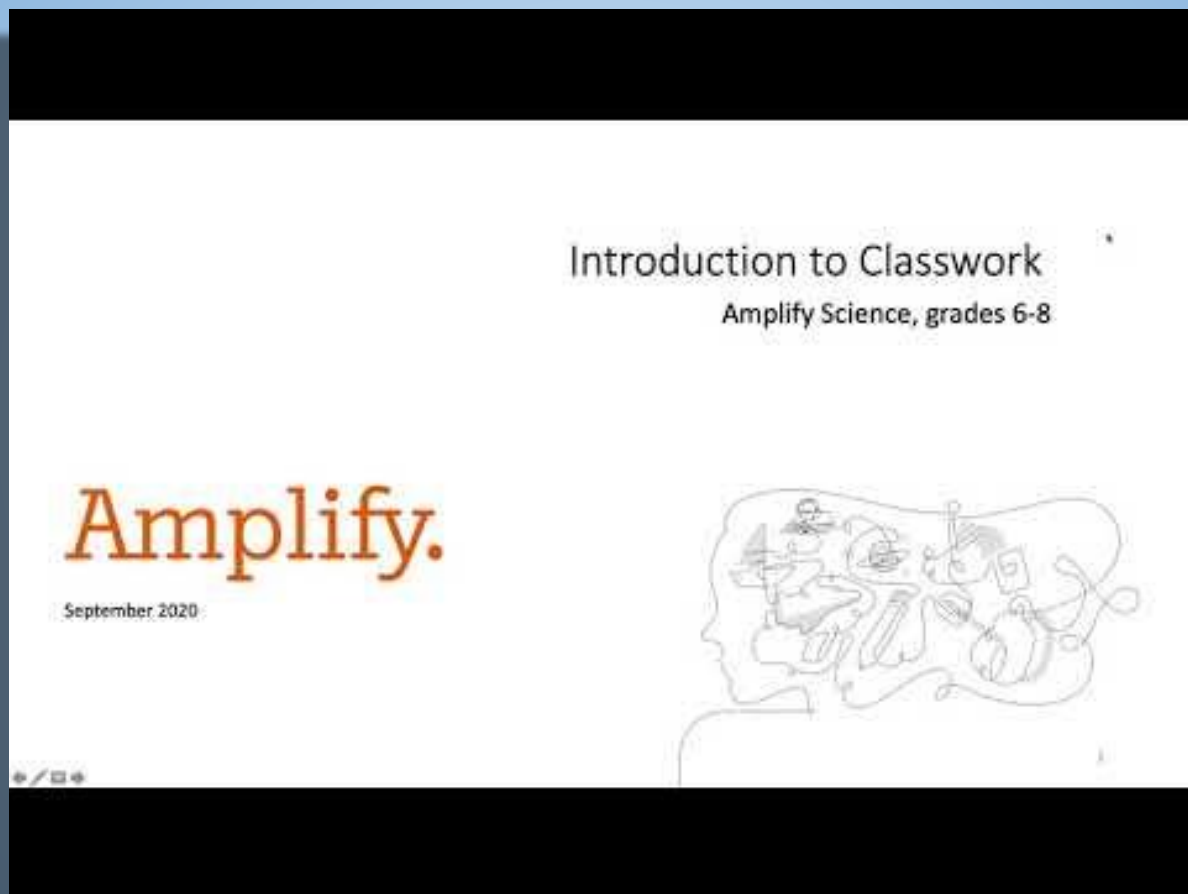
Course Title	Number of Lessons
Patterns of Earth and Sky	22 Lessons
Modeling Matter	22 Lessons
The Earth System	26 Lessons
Ecosystem Restoration	22 Lessons



Reflect-Type-Chat! Share and Learn

Which self-study resource on the Program-Hub will you use most often and why?

Classwork Help



New! Assign in Amplify

AmplifyScience > Traits and Reproduction > Chapter 1 > Lesson 1.2

Lesson 1.2: Introducing Spider Silk Research

Lesson Brief (5 Activities)

- 1 WARM-UP Warm-Up
- 2 STUDENT-TO-STUDENT DISCUSSION Introducing Darwin's Bark Spiders
- 3 SIM Exploring in the Simulation
- 4 HOMEWORK Homework

RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

@ ASSIGN

Overview

Students learn that Darwin's bark spiders, a newly discovered spider species, have the strongest spider silk on Earth. When bred for optimal silk flexibility, their silk may have important medical applications. For example, Darwin's bark spiders' silk may be used to repair human tendons one day. Unfortunately, not all Darwin's bark spiders have the same silk flexibility. In order to help genetic

Digital Resources

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
- All Projections

Modeling Proteins and

3 MODELING TASK Modeling Silk Flexibility

4 HOMEWORK Homework

GENERATE PRINTABLE LESSON GUIDE

@ ASSIGN

Digital Resources

- Classroom Slides 1.4 | PowerPoint

@ ASSIGN

Student Status Screen

Teacher tip: Use Student Status screen to keep track of where students are in the digital platform while you're teaching, and to see their progress on activities in which they can digitally submit work.

The screenshot shows the AmplifyScience interface for Lesson 1.2: Mysterious Moon Jelly Increase. The top navigation bar includes the AmplifyScience logo and the path: Populations and Resources > Chapter 1 > Lesson 1.2. The main header area features the lesson title and a background image of jellyfish. Below the header is a progress bar with four sections: 1. Lesson Brief (4 Activities), 2. WARM-UP Warm-Up, 3. TEACHER-LED DISCUSSION Video: Studying Jelly Populations, and 4. SIM Exploring the Populations and Resources Sim. The current section is highlighted. Below the progress bar are buttons for 'RESET LESSON', 'GENERATE PRINTABLE LESSON GUIDE', and 'ASSIGN'. The main content area is divided into three columns: 'Overview' (with sub-sections: Overview, Materials & Preparation, Differentiation, Standards, Vocabulary), 'Digital Resources' (with items: Classroom Slides 1.2 | PowerPoint, Classroom Slides 1.2 | Google Slides, All Projections), and a 'Spanish' button. A chat icon is visible in the bottom right corner.

Reporting

The Reporting feature allows you to analyze student performance on Pre-Unit, Critical Juncture, and End-of-Unit Assessments.

You can generate reports on the full class, individual students, or specific assessment items.

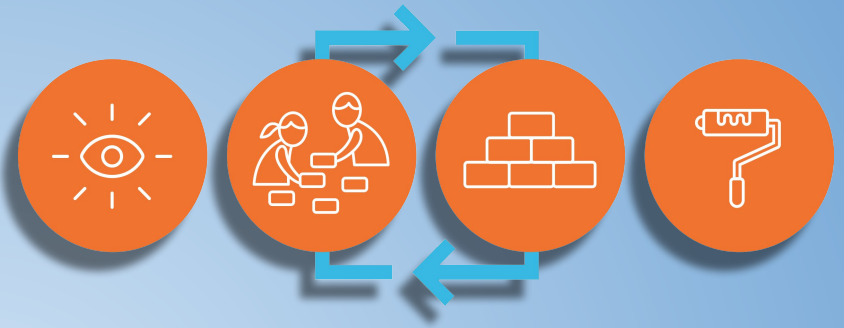
The screenshot shows the AmplifyScience website interface for the 'Populations and Resources' unit. At the top, the navigation bar includes the AmplifyScience logo and the unit title 'Populations and Resources'. Below this is a large banner image featuring a green sea turtle and several jellyfish. The text '19 Lessons' and 'Populations and Resources' is overlaid on the banner. Below the banner, there are two buttons: 'JUMP DOWN TO UNIT GUIDE' and 'GENERATE PRINTABLE TEACHER'S GUIDE'. The main content area displays three chapter cards: 'Chapter 1: Stability and Change in Populations' (4 Lessons), 'Chapter 2: Energy and Changes to Populations' (7 Lessons), and 'Chapter 3: Indirect Effects in Ecosystems' (4 Lessons). Each card has a corresponding image: jellyfish for Chapter 1, a jellyfish and sea turtle for Chapter 2, and a sea turtle for Chapter 3. At the bottom left, there is a language selector for 'Español'. At the bottom right, there is a notification icon.

Plan for the day

- **Approach Essentials**
- **Unit Storyline**
- **Unit Planning**
- **Reflection and closing**



What does this Image represent?



A Amplify Science Approach

B How students build a complex explanation

C How students deepen their understanding

D All of these

Where are differentiation notes for your Unit lessons?

A

Unit Level
Materials and
Prep

C

Digital TG
Lesson Level

B

Unit Level
Science
Background

D

Teacher
Overview

In Chat

What is your number one
takeaway from this
workshop ?



Questions?



Customer Care

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



scihelp@amplify.com



800-823-1969



Amplify Chat