



Amplify Science
New York City

Guided Planning and Support Session
Grade 8 Force and Motion

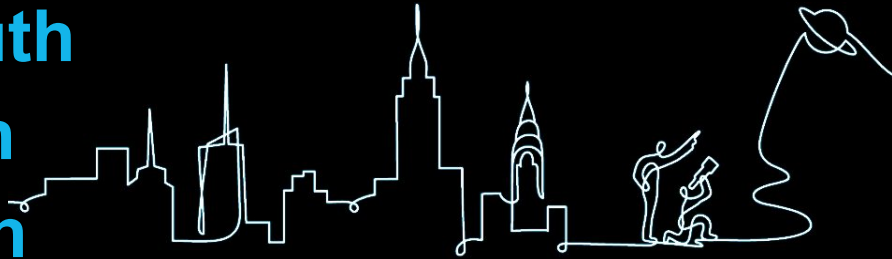
Who's in the Room?

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 internalizing the the Populations and Resources Unit**
- **Build your facility with the digital features and student supports of the unit**
- **Develop a plan for implementing the core unit within your class schedule and instructional format**



During this Session

We will visit and explore:

1. [**The Amplify Science NYC Resources site**](#)
2. [**The Amplify Science Digital Teacher's Guide**](#)
3. [**The Amplify Science NYC Program Guide**](#)
4. [**The Amplify Science Program Hub**](#)



Plan for the day

- **Amplify Science NYC**
- Guided Unit Planning
- Guided Lesson Planning
- Additional Resources
- Reflection and closing





Questions
Reflections
Connections

Planning Notes

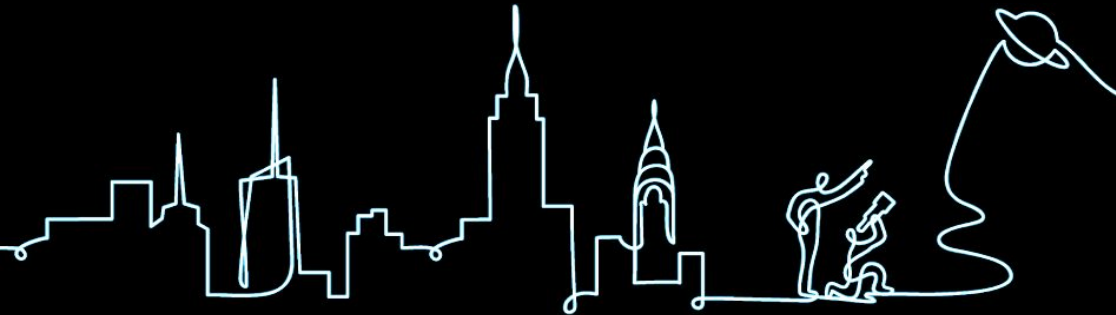
Note Taking Opportunities

A version of this presentation will be available to you.

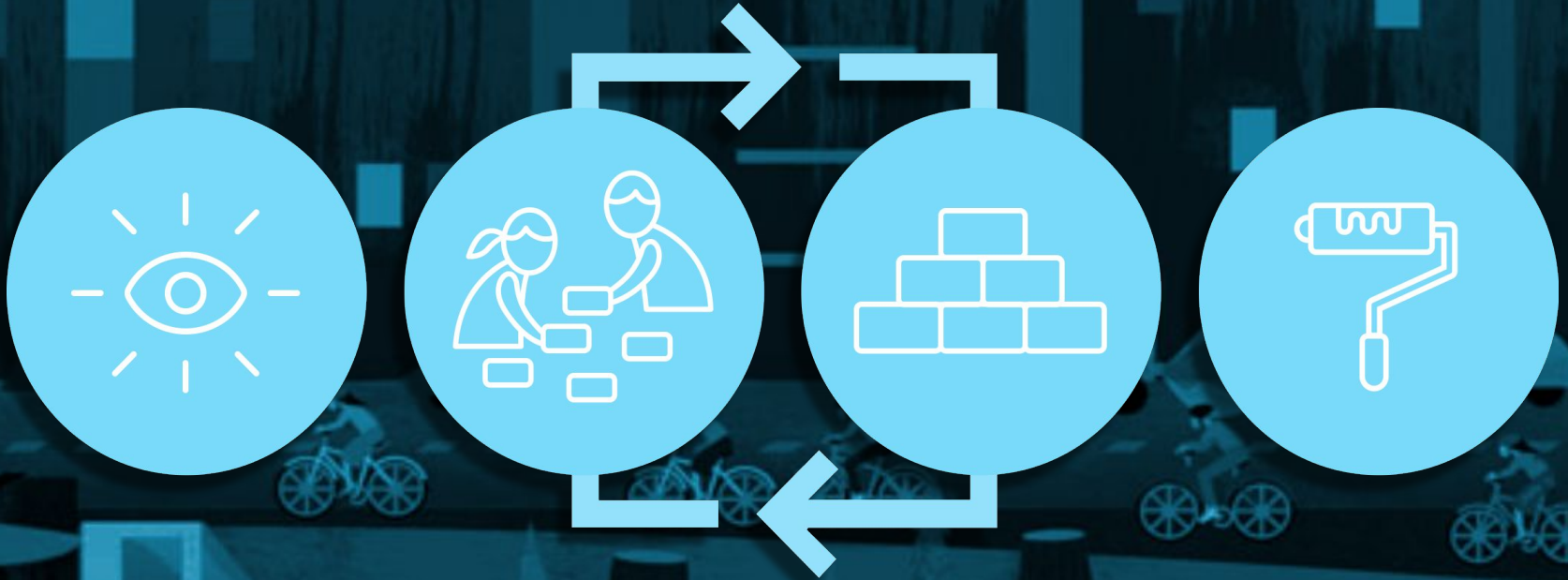
However, you may want to record some of the presenter's comments and suggestions from your colleagues!

Reflect and Share

When you begin planning for an Amplify Science Unit, which resources do you use first and most often?



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.



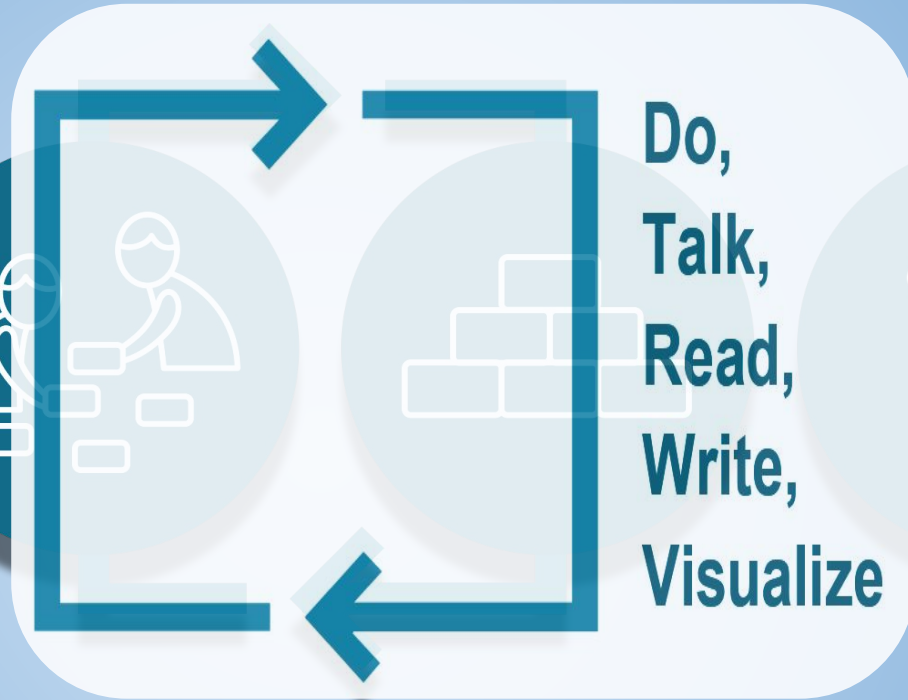
The approach



**Introduce a
phenomenon/real
world problem**



**Collect evidence
from
multiple sources**

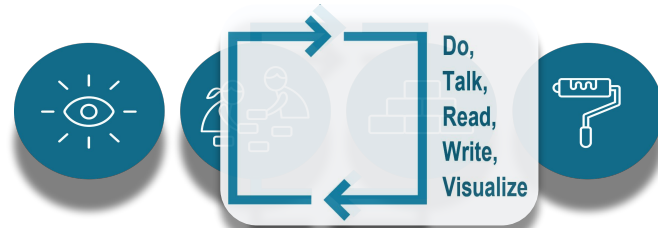


**Build
increasingly
complex
explanations**



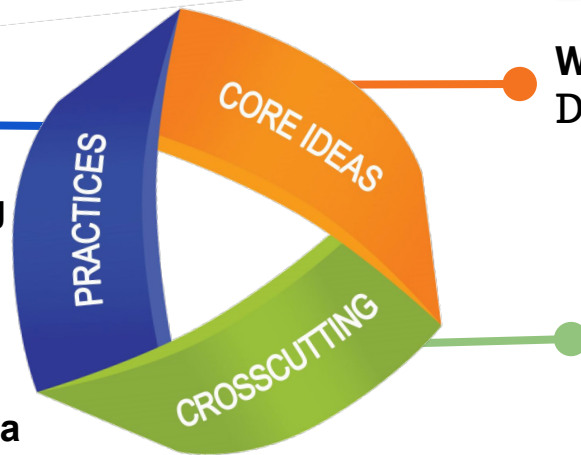
**Apply knowledge to
solve a different
problem**

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

Amplify Science
I'm a chemist.



Amplify Science
I'm a civil engineer.



Amplify Science
We are biologists.



Amplify Science offers students the opportunity to engage in Problem-based deep dives that empower them to 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
I'm a climatologist.



Amplify Science
I'm a genetic researcher.



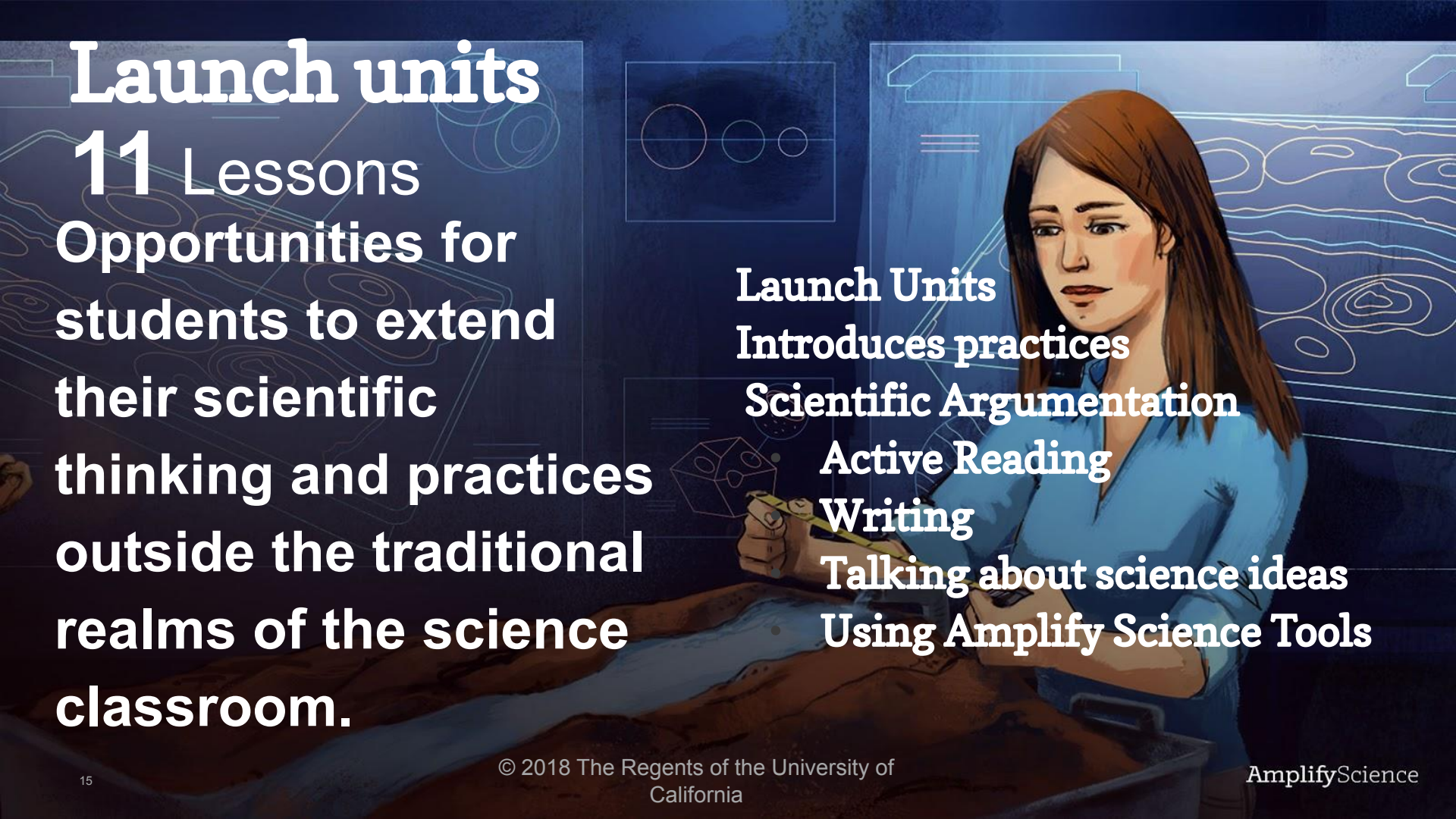
Amplify Science
I'm a spectroscopist.



Launch units

11 Lessons

Opportunities for students to extend their scientific thinking and practices outside the traditional realms of the science classroom.

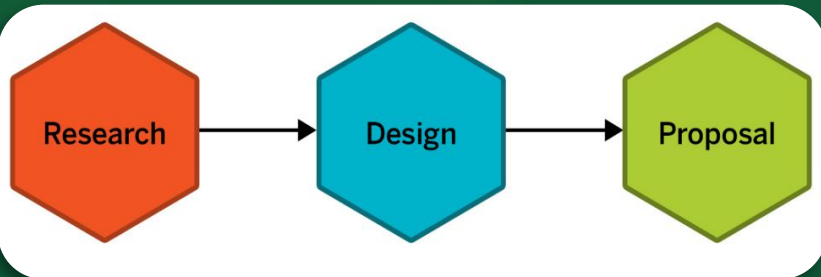


Launch Units
Introduces practices
Scientific Argumentation
Active Reading
Writing
Talking about science ideas
Using Amplify Science Tools

Engineering Internship Units

10 lessons each

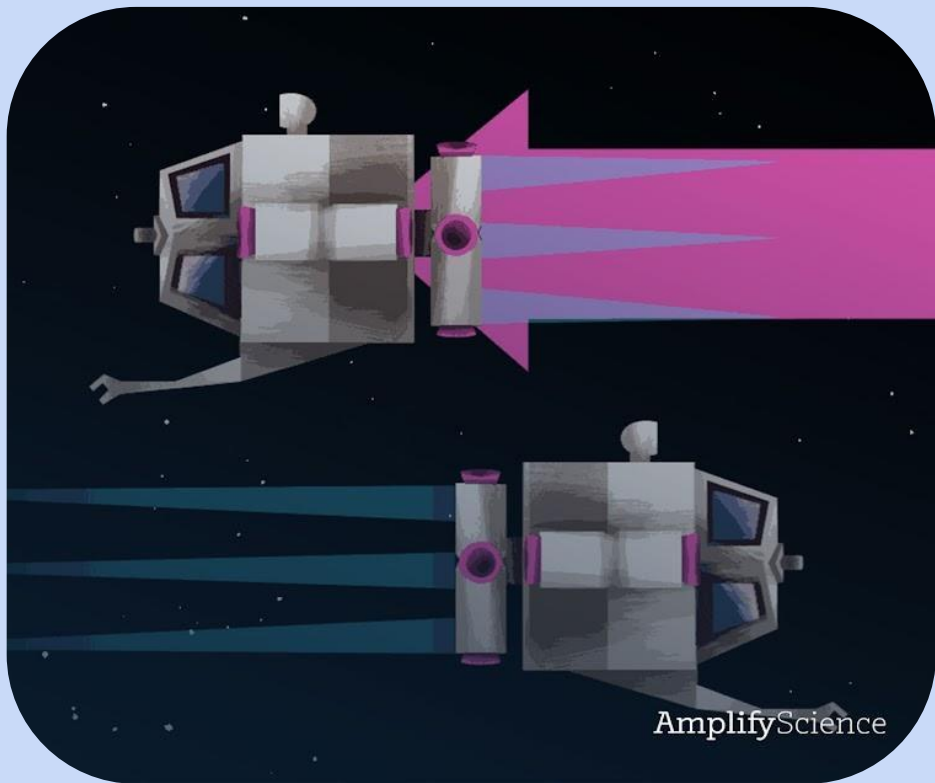
- Students take on the role of interns for the fictional Futura company
- Designing solutions for urgent real-world problems
- Apply and deepen learning from Core Units while cultivating students' responsibility to help others
- Teacher communicates through Futura Workspace



Core Units

19 lessons

- Students work to figure out the unit's anchoring phenomena.
-
- Students gain an understanding of the unit's DCI's utilizing SEP's and CCC's.
- Unit culminates with a Science Seminar: Students apply their learning from the unit to a new real-world problem



Partnership: Amplify-LHS-NYC DOE

Amplify Science

Amplify Science NYC Edition





Questions?

Amplify Science Chat Race

Type the letter for your answer to the questions you see here in chat!

A

Type letter A in
Chat

C

Type letter C in
Chat

B

Type letter B in
Chat

D

Type letter D in
Chat

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

Where can you find login information and NYC scope and sequence?

A

On the NYC
Resource Site

C

In the offline
preparation
guide

B

The Program
Hub

D

The TG on the
Unit Level

Where can you find the mandatory NYC companion lessons?

A

On the NYC
Resource Site

C

In the offline
preparation
guide

B

The Program
Hub

D

The TG on the
Unit Level

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

- Amplify Science NYC
- **Guided Unit Planning**
- Guided Lesson Planning
- Additional Resources
- Reflection and closing



What is phenomenon-based instruction?

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

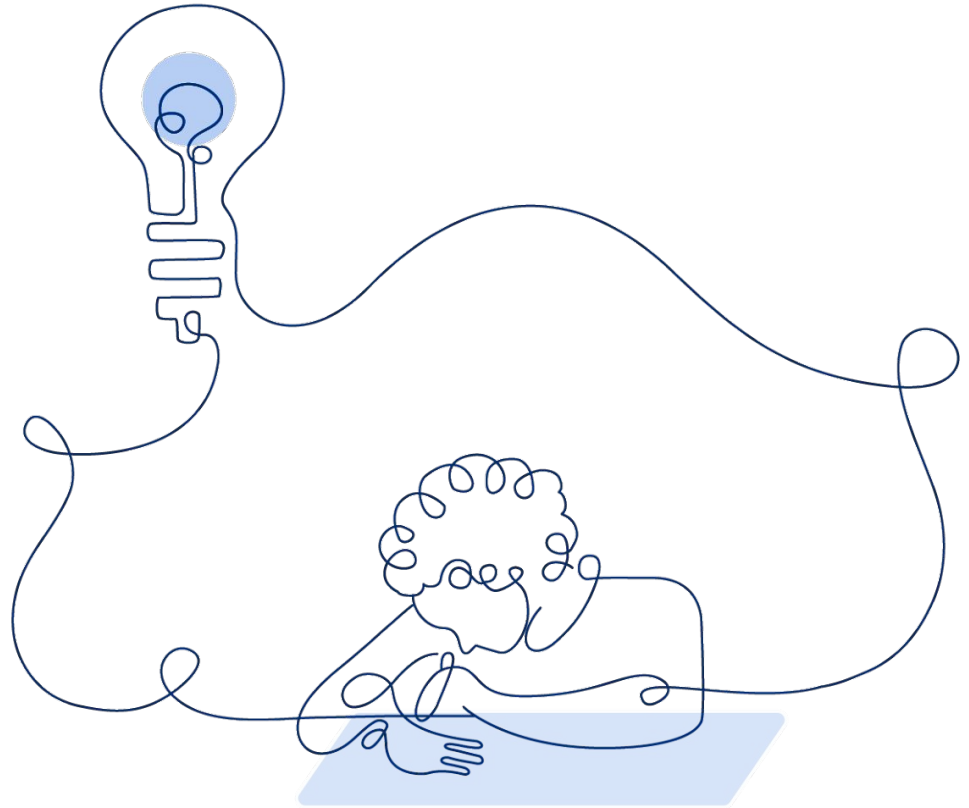


Previewing the unit

Introducing the phenomenon

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

Pay attention to the phenomenon, or observable event, students will figure out in your unit.



An illustration of a person in a blue suit pushing a wheelbarrow. The person is on the right, leaning forward, pushing the wheelbarrow towards the left. The wheelbarrow has a large grey wheel and a smaller front wheel. The background is a gradient of pink and purple. The text "Force and Motion" is overlaid in the center in white.

Force and Motion

I'm a Physicist!

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



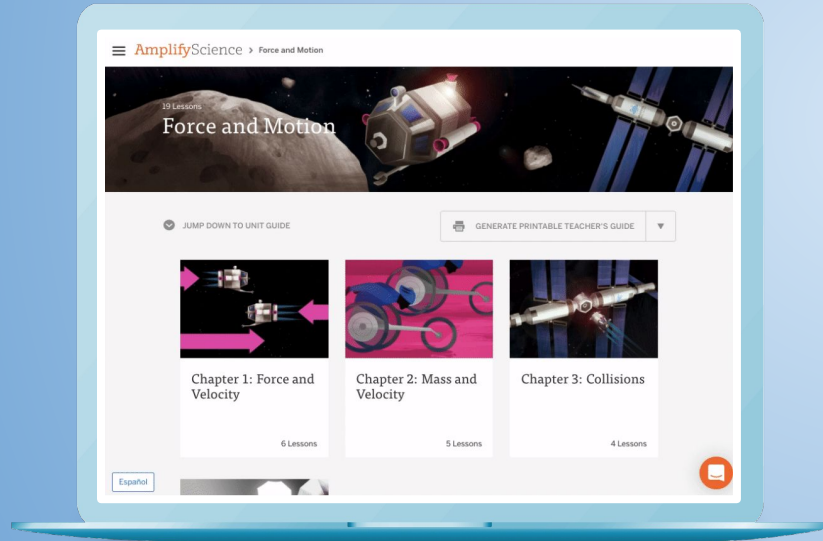
Anchor

Phenomenon:

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



Digital Teacher's Guide

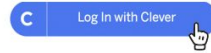


Login to Your Digital Teacher's Guide

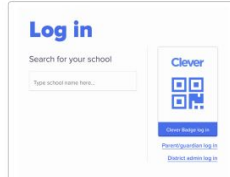
1. Go to learning.amplify.com
 - Reminders:
 - Use the latest version of Safari or Chrome
 - Supported devices: iPad 5 or more recent, MacBooks, Windows laptops or desktops, and Chromebooks
 - **Pro Tip:** Bookmark this url in your browser



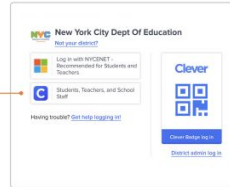
2. Select **Log In with Clever**



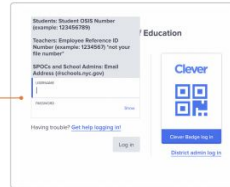
3. Search for and **select your school by name or DBN** (ex. 00M000 - PS/IS School Name)



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



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



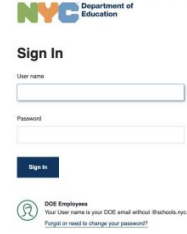
6. Click **Log In**

Clever

TeachHub: Teacher Login Guide



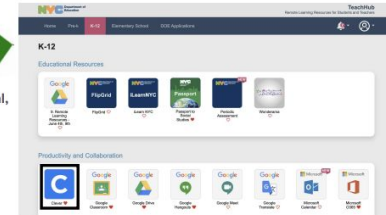
1. Head to the DOE's new Remote Learning portal at teachhub.schools.nyc.gov



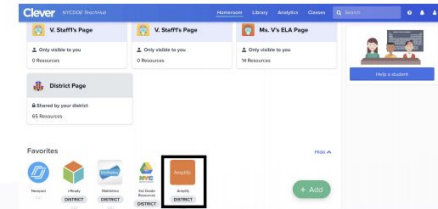
2. Enter your DOE username and password

**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.

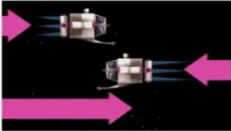
Guided Navigation Unit Level


AmplifyScience > Force and Motion

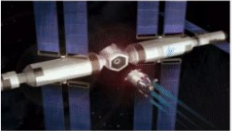
19 Lessons
Force and Motion

☑ 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

Español



Guided Unit Internalization

Part 1: Unit-level internalization

Unit title:

What is the phenomenon students are investigating in your unit?

Unit Question:

Student role:

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 Document

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

Guided Unit Internalization
Part 1: Unit-level Internalization

Unit title: _____









What is the phenomenon students are investigating in your unit?

Unit Questions: _____ Student role: _____

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

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

- 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?

Guided Unit Internalization
Part 1: Unit-level Internalization

Unit title: _____

What is the phenomenon students are investigating in your unit?

Unit Question: _____ Student role: _____

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

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

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?

Guided Unit Internalization
Part 1: Unit-level internalization

Unit title:

What is the phenomenon students are investigating in your unit?

Unit Questions: Student role:

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

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

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

PDF Article Compilation

PDF Coherence Flowchart

PDF Copymaster Compilation

PDF Flextension Compilation

PDF Investigation Notebook

PDF NGSS Information for Parents and Guardians

PDF Print Materials (8.5" x 11")

PDF Print Materials (11" x 17")

Offline Preparation

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

Guided Unit Internalization
Part 1: Unit-level Internalization

Unit title: _____

What is the phenomenon students are investigating in your unit?









Unit Question: _____ Student role: _____

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

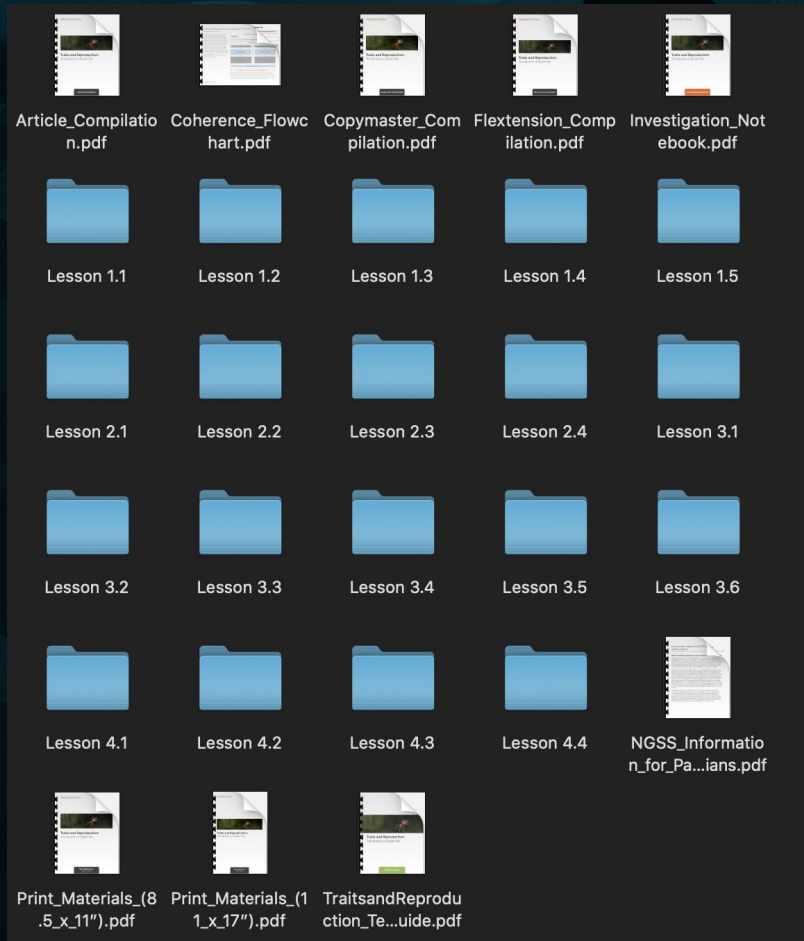
What science ideas do students need to figure out in order to explain the phenomenon?

- 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



Planning Tip!
Remember to
Download the
Offline Guide
Materials

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title:

What is the phenomenon students are investigating in your unit?

Unit Overview

Unit Question:

Lesson Overview Compilation

Student role:

Unit Overview

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

**Unit Map, See also
Progress Build**

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

**Unit Map, Progress Build,
Science Background Document**

**Where to
Look!**

Reflect-Type-Chat! Share and Learn









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



Questions?

Planning Document

Where is the Coherence Flowchart?

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

Force and Motion: Docking Failure in Space

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)

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)

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

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

Skim the Chapter 1 Coherence Flowchart.

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

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



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.

Teacher References

Lesson Overview Compilation



Standards and Goals



3-D Statements



Assessment System



Embedded Formative Assessments



Books in This Unit



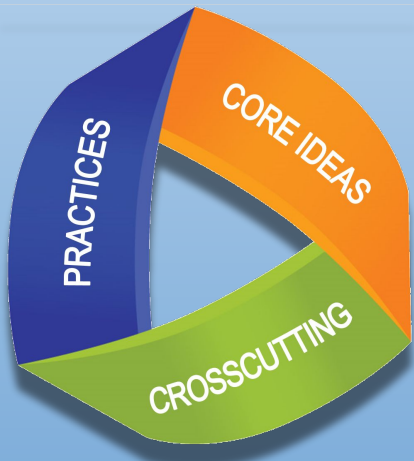
Apps in This Unit



Flexextensions in This Unit



3-D Assessment Connections



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

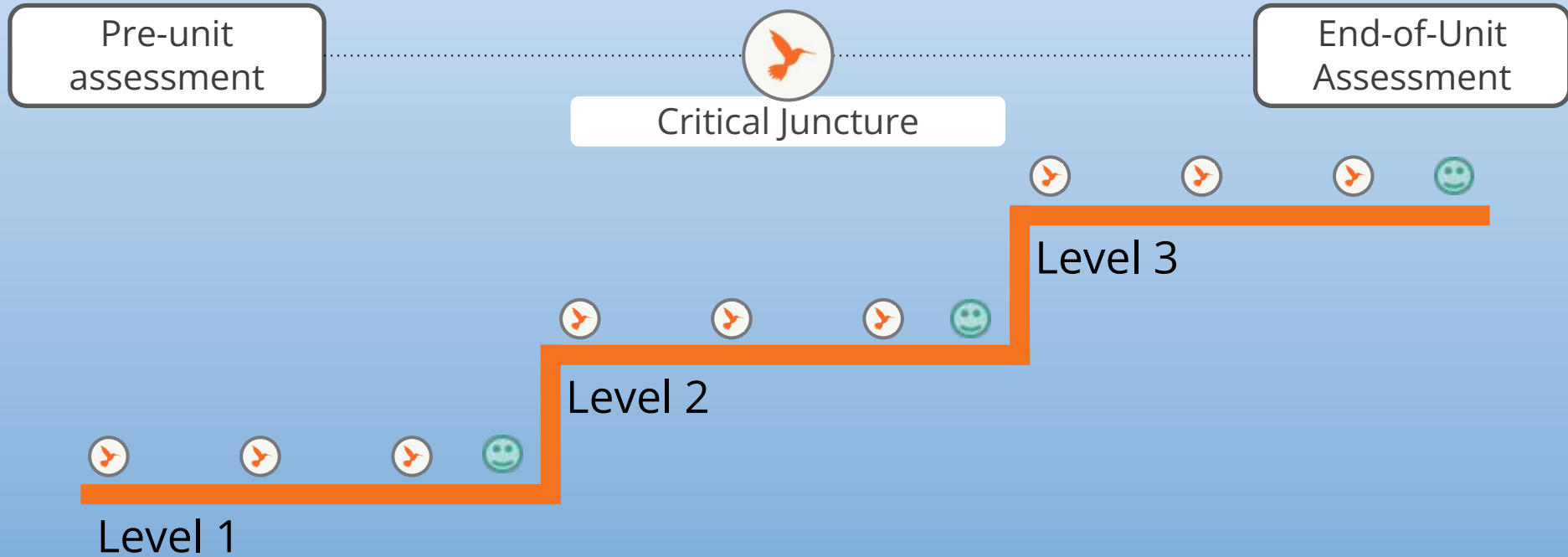
SEPs:

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

CCC:

- Stability and Change

6-8 Assessment System



G8 Force and Motion

1.1

Pre-unit
assessment



Critical Junctures

End-of-Unit
Assessment



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



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



Level 3:
When two objects
collide, both
experience the same
strength force, but
in opposite
directions.

Benchmark Assessments

- Grades 3-8
- 4 Benchmarks per grade
- 14-15 items perform

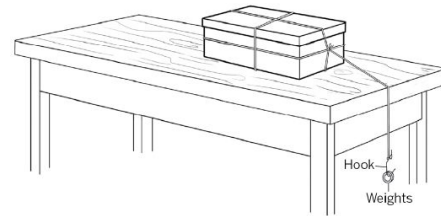
Click to open
Benchmark
Assessment site



Benchmark
Assessments

1

This box is sitting still on a table. You want to understand the changing forces that act on the box. Which of the following investigations would help you do this?



- Describe the direction the box is pushing on the table.
- Observe that the box is not moving. That means there are no forces acting on it.
- Hang weights from the hook. The weights will push on the box.
- Hang weights from the hook. The weights will pull on the box. The box will slide to the end of the table.

2

Vincent wants to move an object using touching forces. Which test will show that touching forces move objects?

- He could drop a feather from several different heights and see how fast it falls.
- He could pull a toy car with a string until it hits another toy car.
- He could rub a balloon on his shirt and hold it over his head to make his hair stand up.
- He could use a magnet to pull a stack of paper clips from one end of the table to another.

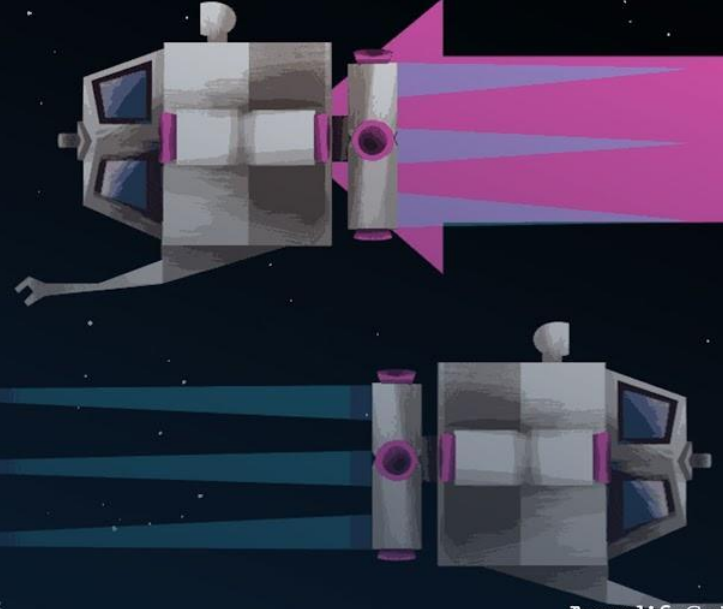
Plan for the day

- Amplify Science NYC
- Guided Unit Planning
- **Guided Lesson Planning**
- Additional Resources
- Reflection and closing



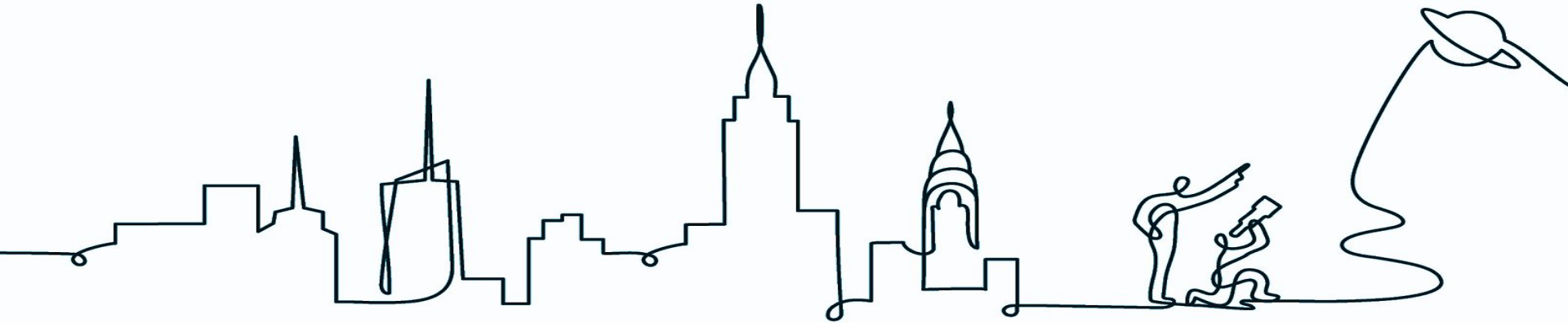


Guided Lesson Exploration and Planning



Differentiation

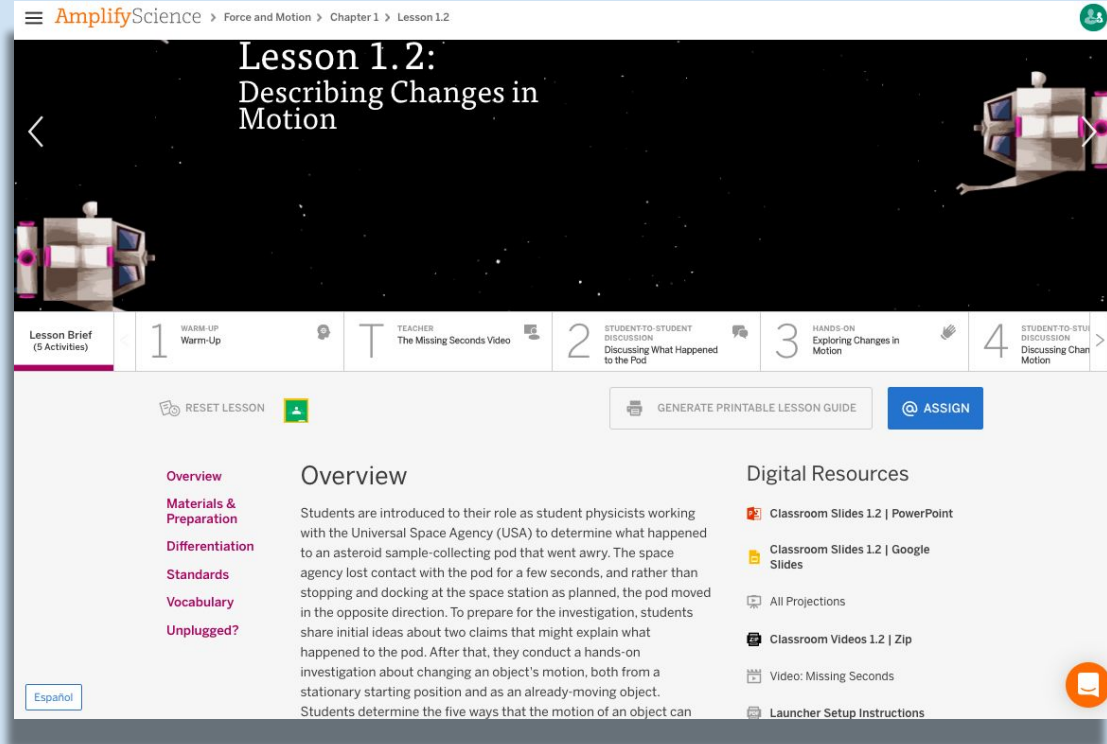
Quick Review of Lesson Level Brief



Lesson Exploration

Use the Lesson Brief for:

1. information about lesson timing
2. materials and preparation
3. differentiation suggestions
4. 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 is part of the "Force and Motion" chapter. The interface includes a navigation bar with a hamburger menu, the AmplifyScience logo, and the page title. Below the title is a navigation bar with four main sections: 1. Lesson Brief (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). The "Lesson Brief" section is currently selected and expanded to show four sub-activities: 1. Warm-Up (Warm-Up), 2. Teacher (The Missing Seconds Video), 3. Student-to-Student Discussion (Discussing What Happened to the Pod), and 4. Student-to-Student Discussion (Discussing Changes in Motion). Below the navigation bar are two buttons: "RESET LESSON" and "GENERATE PRINTABLE LESSON GUIDE". The main content area is divided into three columns: "Overview", "Digital Resources", and "Assign". The "Overview" section contains a paragraph of text describing the lesson's context and objectives. The "Digital Resources" section lists various resources such as Classroom Slides 1.2 (PowerPoint and Google Slides), All Projections, Classroom Videos 1.2 (Zip), Video: Missing Seconds, and Launcher Setup Instructions. The "Assign" section contains a blue "ASSIGN" button. The interface also includes a "Español" language selector in the bottom left corner and a notification icon in the bottom right corner.

AmplifyScience > Force and Motion > Chapter 1 > Lesson 1.2

Lesson 1.2: Describing Changes in Motion

Lesson Brief (5 Activities)

- 1 WARM-UP Warm-Up
- 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

RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

ASSIGN

Overview

Students are introduced to their role as student physicists working with the Universal Space Agency (USA) to determine what happened to an asteroid sample-collecting pod that went awry. The space agency lost contact with the pod for a few seconds, and rather than stopping and docking at the space station as planned, the pod moved in the opposite direction. To prepare for the investigation, students share initial ideas about two claims that might explain what happened to the pod. After that, they conduct a hands-on investigation about changing an object's motion, both from a stationary starting position and as an already-moving object. Students determine the five ways that the motion of an object can

Digital Resources

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
- All Projections
- Classroom Videos 1.2 | Zip
- Video: Missing Seconds
- Launcher Setup Instructions

Español

Science Seminar: Remote/Hybrid



Considering claims and evidence

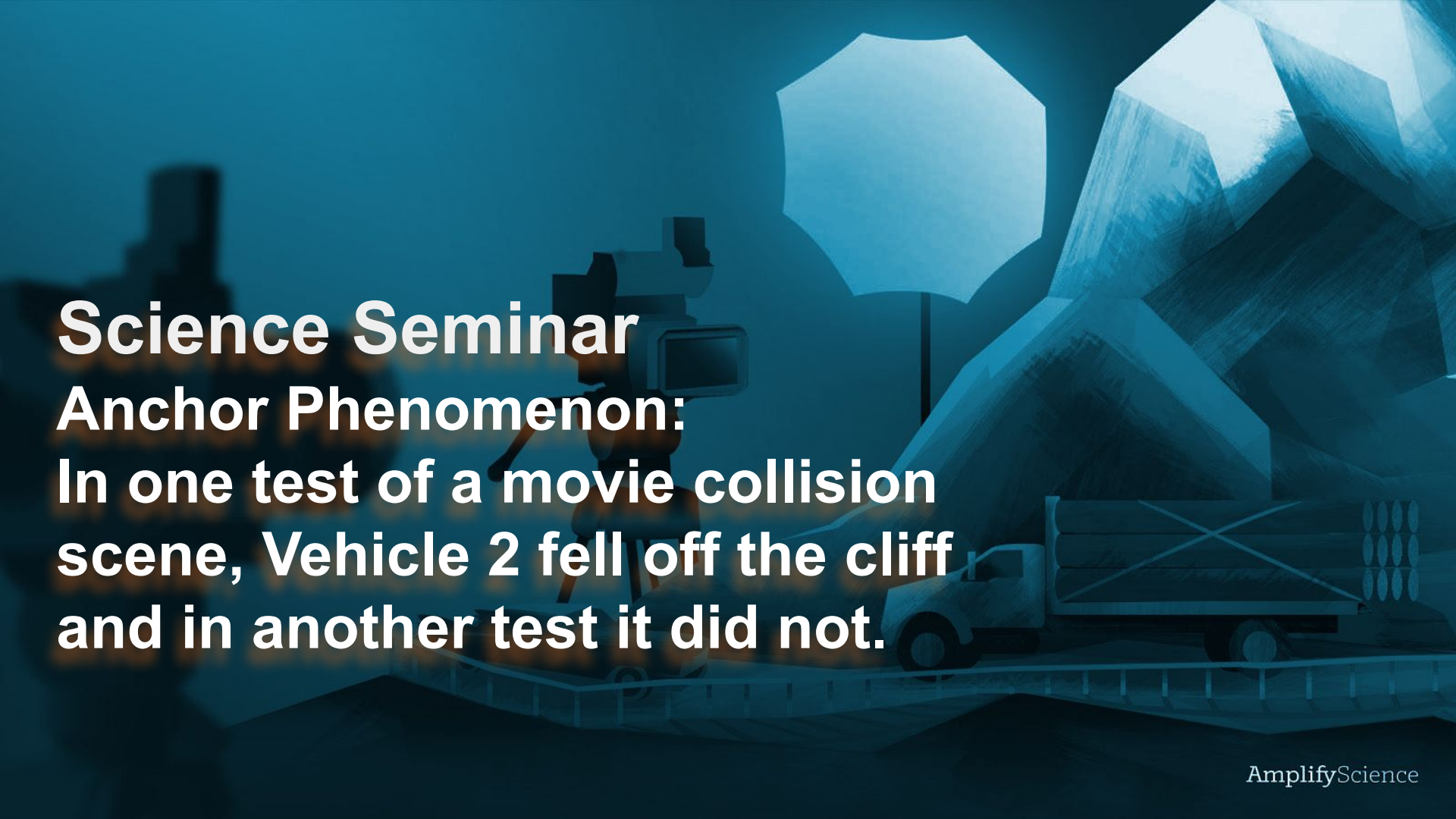


Participating in the Science Seminar



Writing an argument





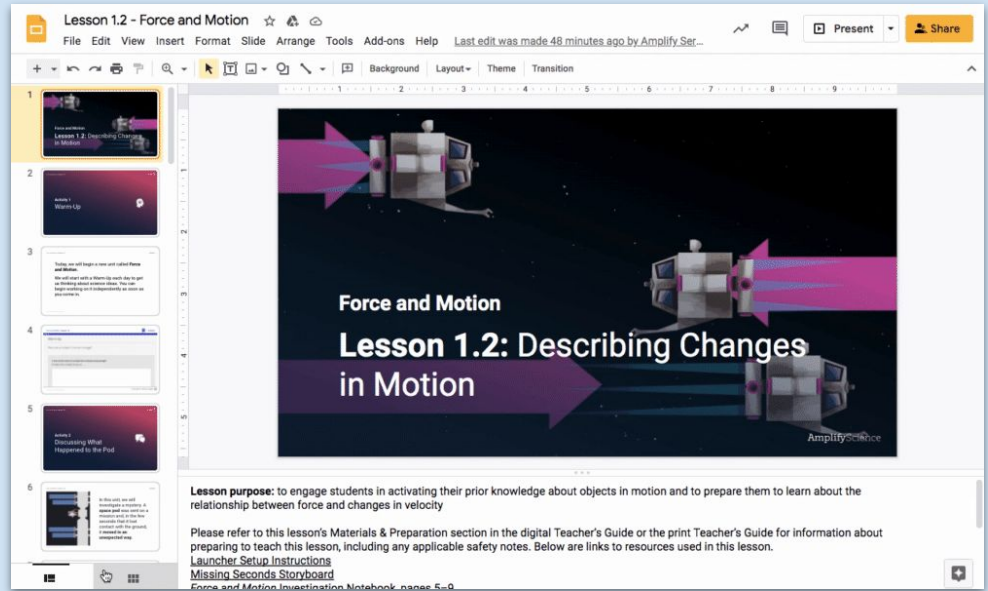
Science Seminar
Anchor Phenomenon:
In one test of a movie collision scene, Vehicle 2 fell off the cliff and in another test it did not.

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. Record your planning observations/notes!



The screenshot shows a digital presentation interface for "Lesson 1.2 - Force and Motion". The main slide features a dark background with a 3D model of a rocket engine and a purple arrow pointing to the right. The text on the slide reads "Force and Motion" and "Lesson 1.2: Describing Changes in Motion". Below the slide, there is a "Lesson purpose" section and a list of resources. The interface includes a top menu bar with options like "File", "Edit", "View", "Insert", "Format", "Slide", "Arrange", "Tools", "Add-ons", "Help", and a "Present" button. A sidebar on the left shows a list of slides, with slide 1 selected.

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](#)



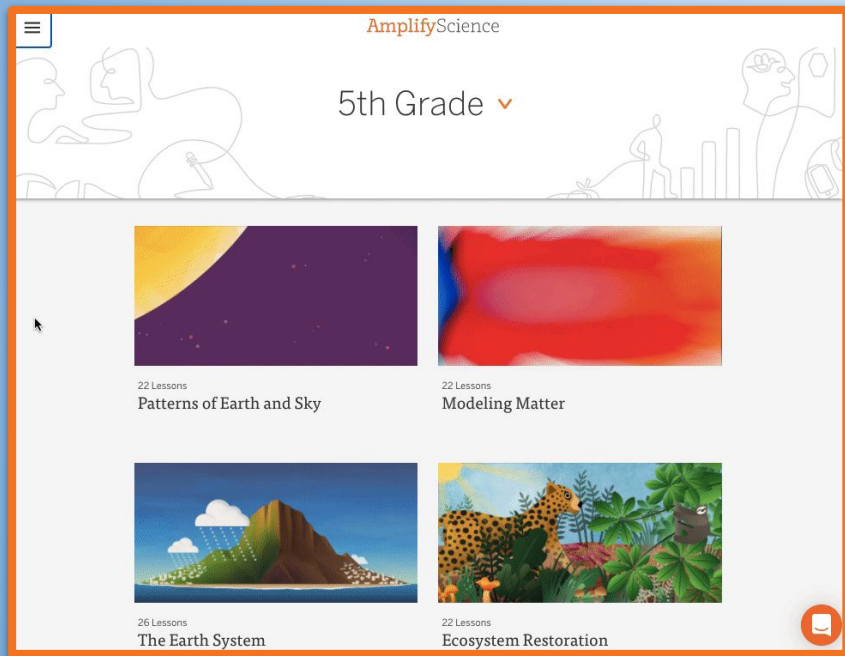
Questions?

Plan for the day

- Amplify Science NYC
- Guided Unit Planning
- Guided Lesson Planning
- **Additional Resources**
- Reflection and closing



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?

The Amplify Science Program Guide



AmplifyScience

New York City

Welcome

Program developers

Designed for the NGSS

Program components

Scope and Sequence

Phenomena, standards, and progressions

Assessments

Science and literacy

Access and equity

Resources

Welcome

The Program Guide details information about the program, including its authorship, development, themes, and more. It serves as a resource for finding out more about the program's structure, components, supports, how it meets standards, and flexibility.

Navigate through the links on the left-hand side of the page to access more information about the program and to explore resources that can help with your implementation.

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

ACCESS THE DIGITAL CURRICULUM

Resources

Support and FAQs

Technical Support

(800) 823-1969

scihelp@amplify.com

More Amplify Science

Transitional Kindergarten (TK)

Search Site ...



Access and Equity: Amplify Science Program Guide

AmplifyScience

Amplify Science

Welcome

Program developers

Designed for the NGSS

Program components

Scope and Sequence

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ACCESS THE DIGITAL CURRICULUM

Support

[Amplify Help Center](#)

[1-800-823-1969](tel:1-800-823-1969)

scihelp@amplify.com

More Amplify Science

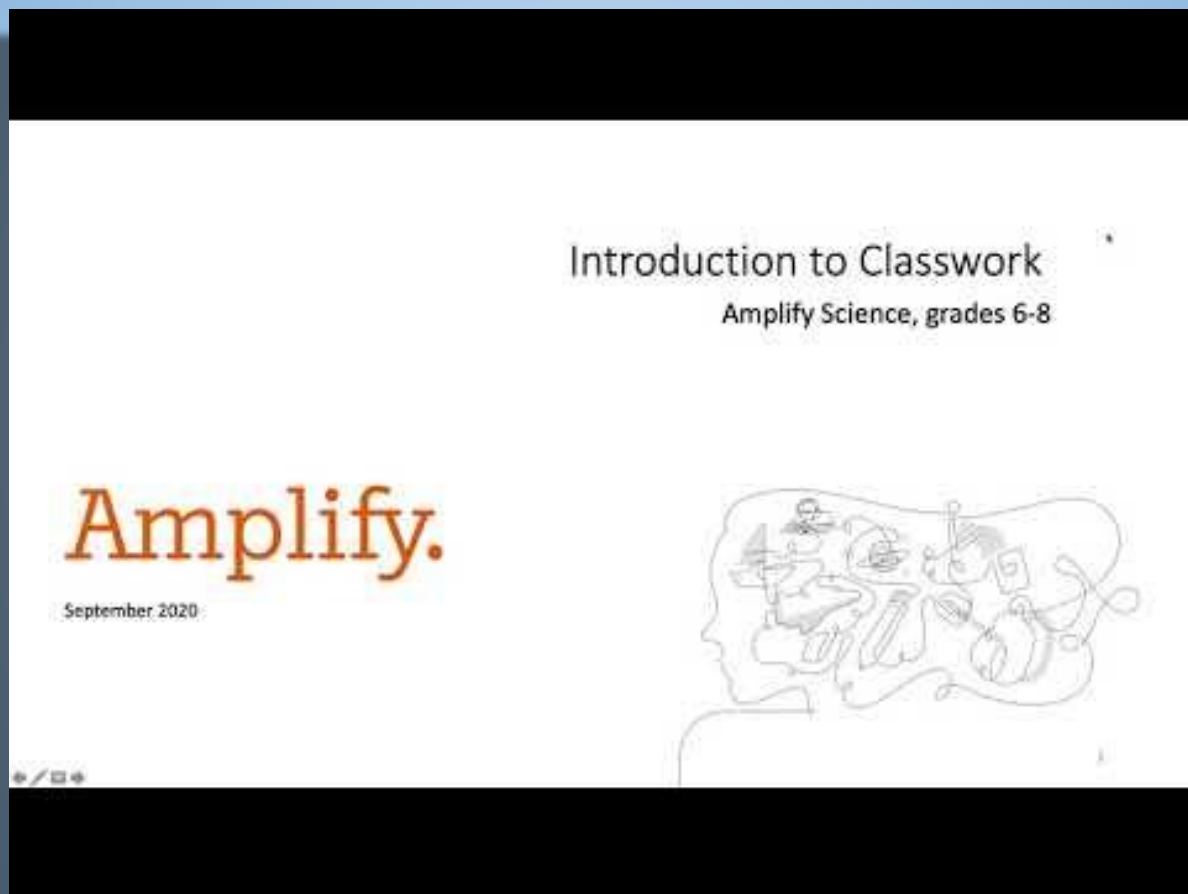
[Transitional Kindergarten](#)

Search Site ...



Record your findings!

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 Amplify Science interface for Lesson 1.2: Describing Changes in Motion. The top navigation bar includes the Amplify Science logo and the path: Force and Motion > Chapter 1 > Lesson 1.2. The main content area features a dark background with the lesson title and navigation arrows. Below this is a progress bar with five segments: Lesson Brief (5 Activities), Student-to-Student Discussion (Discussing Changes in Motion), Homework, and two empty segments. The 'Student-to-Student Discussion' segment is currently active. Below the progress bar are buttons for 'RESET LESSON', 'GENERATE PRINTABLE LESSON GUIDE', and 'ASSIGN'. The 'Overview' section is visible, showing the title 'Overview' and a brief description: 'Students are introduced to their role as student physicists working with the Universal Space Agency (USA) to determine what happened'. A 'Digital Resources' section is also present, listing 'Classroom Slides 1.2 | PowerPoint'. A 'Español' button is located in the bottom left corner, and a notification icon is 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.

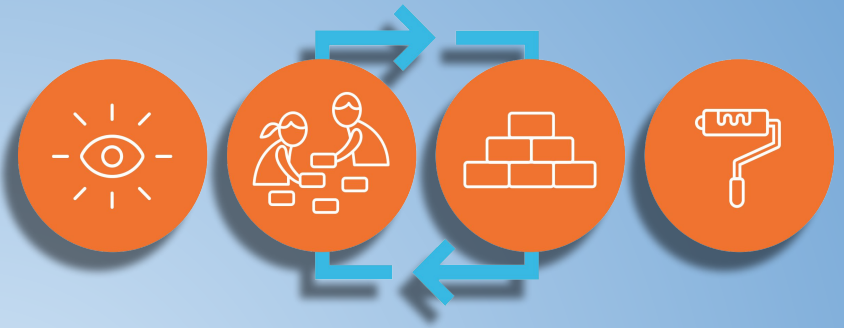
The screenshot shows the AmplifyScience website interface for the 'Force and Motion' unit. At the top, the logo 'AmplifyScience' is followed by a navigation menu with 'Force and Motion' selected. Below the header is a large banner image featuring a moon, a satellite, and a rocket. The text '19 Lessons' and 'Force and Motion' 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: Force and Velocity' (6 Lessons), 'Chapter 2: Mass and Velocity' (5 Lessons), and 'Chapter 3: Collisions' (4 Lessons). Each card has a corresponding image and a mouse cursor icon. At the bottom left, there is a language selector for 'Español'. At the bottom right, there is a circular icon with a white envelope on an orange background.

Plan for the day

- Amplify Science NYC
- Guided Unit Planning
- Guided Lesson Planning
- Additional Resources
- **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

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

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