# Amplify Science New York City

# Guided Unit Internalization Phase Change

Who's in the Room? Represent for your 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!

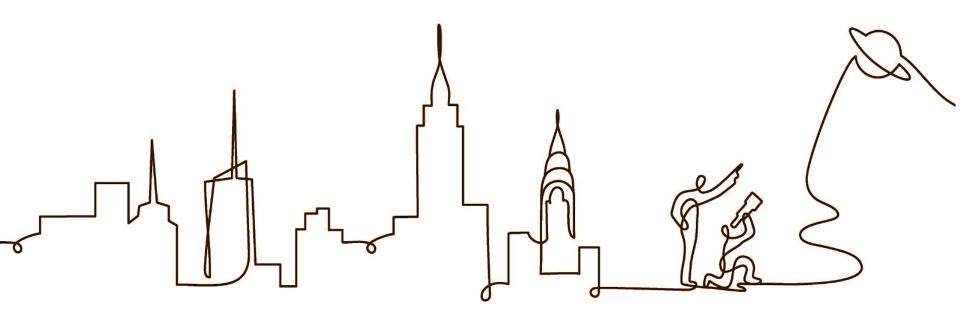
# Workshop Goals

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

- Make instructional decisions about remote or hybrid learning
- Develop a plan for using @Home resources within your class schedule and instructional format.



### **Reflection and Goal Setting**



**Reflect-** then in <u>chat</u> **Choose One**: While teaching through new instructional models (Hybrid/Remote)

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

### Amplify Science New York City

#### Guided Unit Internalization With @Home Resources



Guided Unit Intern Part 1: Unit-level interna			
Unit title:			
What is the phenomenon stu	idents are investigating in your unit?		
Unit Question:		St	udent role:
By the end of the unit, stude	nts figure out		
What science ideas do studer	nts need to figure out in order to exp	lain the phenomenon?	

### Participant Materials

AmplifyScience@Lesson Adaptation Tool (Remote/Hybrid)

Lesson:	Date:
esson purpose: Lesson Brief: Overview]	3-D connections and formative assessment opportunities:
What the students will learn in this lesson and potential challenges.	How will the students be practicing the multiple modalities during this lesson?

# Plan for the day

- Framing the day
- Unit Internalization
- Amplify Science @Home
- Planning
- Reflection and closing



### **Amplify**Science

#### NYC Middle School Unit Pacing Calendar 20-21\*



\*Updated Sequence for the 2020-2021 School Year

#### Middle School Curriculum New York City Edition

#### 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

**Amplify**Science



Unit	@Home Unit Release	@Home Videos Release
Chemical Reactions	January 15	December 11
Earth's Changing Climate	March 13	March 26
Earth, Moon, and Sun	January 10	December 11
Evolutionary History	February 26	March 26
Light Waves	December 17	October 26
Magnetic Fields	November 15	N/A (already posted)
Matter and Energy in Ecosystems	March 21	March 26
Natural Selection	February 20	February 12
Ocean, Atmosphere, and Clime	January 17	December 11
Phase Change	December 19	October 26
Populations and Resources	February 20	February 12
Rock Transformations	November 6	N/A (already posted)
Thermal Energy	December 13	October 26
Traits and Reproduction	November 4	N/A (already posted)
Weather Patterns	February 17	February 12

### Amplify Science@Home Schedule



Written by Amplify Updated over a week ago

# @Home Resources Release Dates

https://my.amplify.com/help/en/articles/4562101-am plify-science-home-schedule



### **Classroom Slides Release Dates**

#### https://my.amplify.com/help/en/articles/4004263-amplify-science-classroom-slides-for-grades-6-8

#### 1st and 2nd unit of each grade: August 2020

- Microbiome
- Geology on Mars
- Harnessing Human Energy
- Metabolism
- Plate Motion
- Force and Motion

#### 3rd unit of each grade: September 2020

- Metabolism Engineering Internship
- Plate Motion Engineering Internship
- Force and Motion Engineering Internship

#### 4th unit of each grade: October 2020

- Traits and Reproduction
- Rock Transformations
- Magnetic Fields

5th unit of each grade: November 2020

- Thermal Energy
- Phase Change
- Light Waves

#### 6th unit of each grade: December 2020

- Ocean, Atmosphere, and Climate
- Plate Motion Engineering Internship
- Earth, Moon, and Sun

#### 8th unit of each grade: March 2021

- Earth's Changing Climate
- Populations and Resources
- Natural Selection Engineering Internship

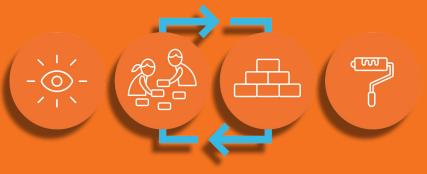
#### 9th unit of each grade: April 2021

- Earth's Changing Climate Engineering Internship
- Matter and Energy in Ecosystems
- Evolutionary History

#### 7th unit of each grade: February 2021

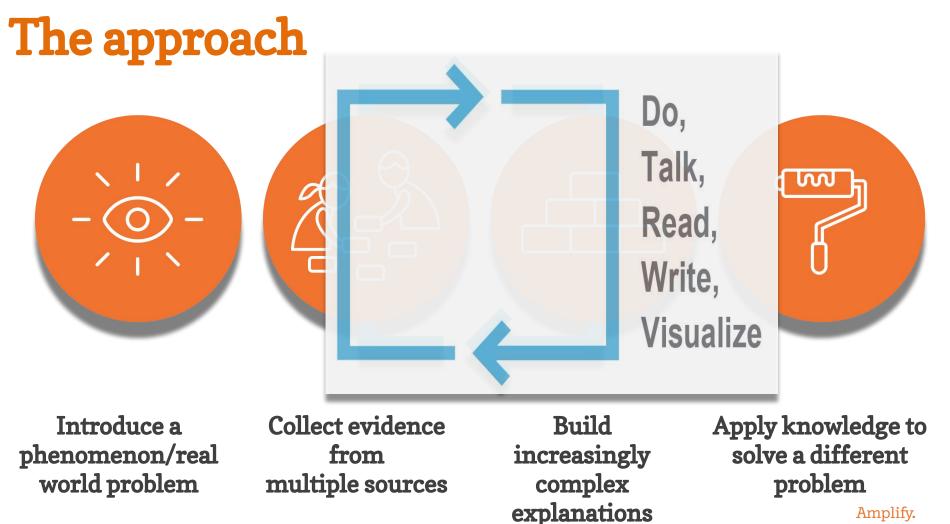
- Weather Patterns
- Chemical Reactions
- Natural Selection

# Revisiting the Amplify Science approach





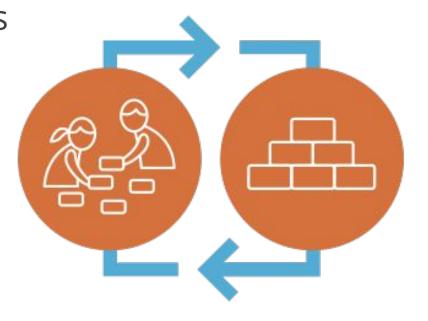
/	Questions Reflections Connections	Unit 2 Planning Notes
		Amplify Science Approach Review:
		Note Taking Opportunities
		A version of this presentation will be available to you.
		However, you may want to
		record some of the
		presenter's comments and suggestions from your
		colleagues!
	-	



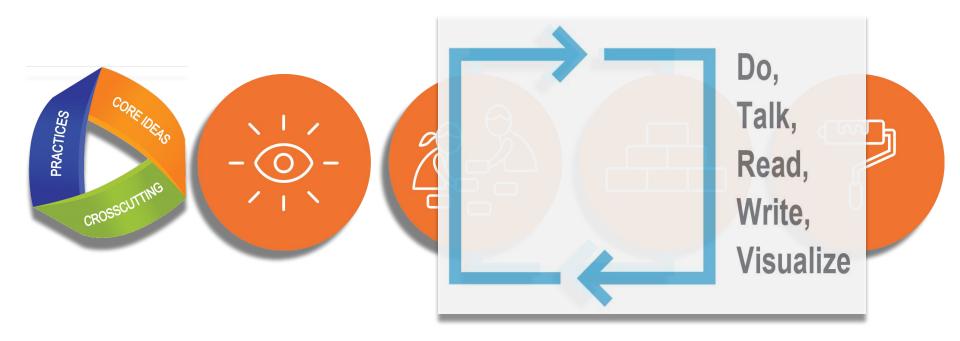
### Multimodal Phenomenon-based approach

The anchor phenomenon drives instruction through a whole unit

Taking on the **roles** of scientists and engineers, students gather evidence and use it to build increasingly complex explanations about a rich, real-world anchoring phenomenon.



## Using three dimensions to figure out







# Plan for the day

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

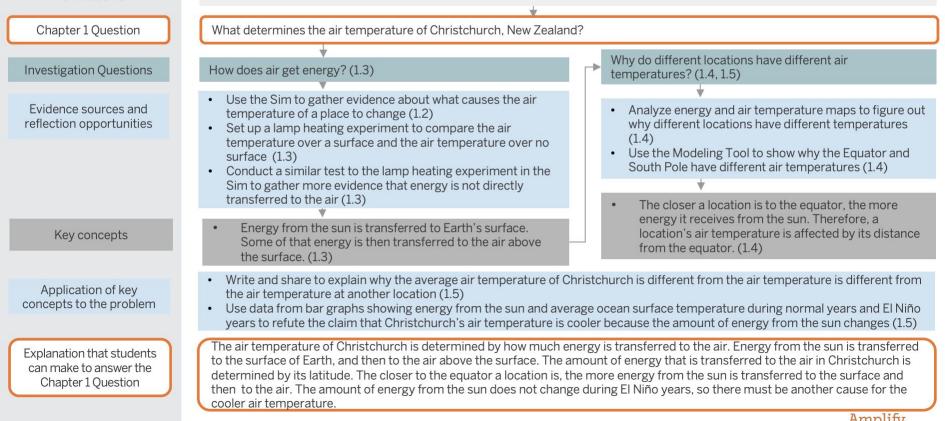
Where do you find all of the Unit Phenomena listed with Unit questions?

Planning for the Unit		Printable Resources
Unit Overview	~	Article Compilation
Unit Map	~	Coherence Flowchart
Progress Build	~	Copymaster Compilation
Getting Ready to Teach	~	Flextension Compilation
Materials and Preparation	~	Investigation Notebook
Science Background	~	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

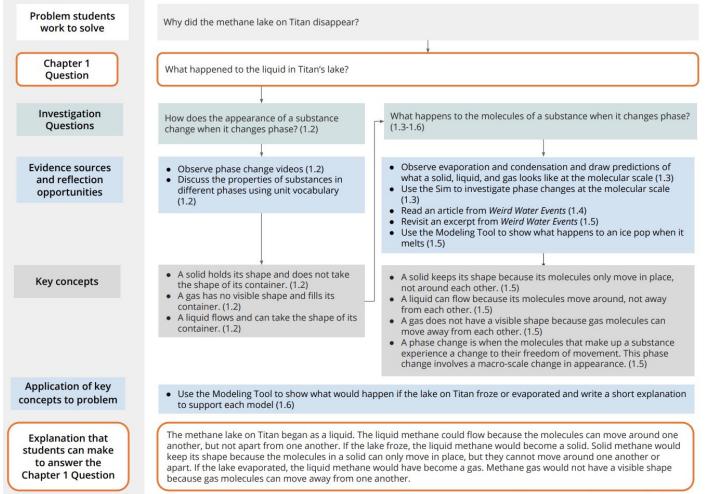
### Ocean, Atmosphere, and Climate: Cold Years in New Zealand

The problem students work to solve

During El Niño years, why is Christchurch, New Zealand's air temperature cooler than usual?



#### Phase Change: Titan's Disappearing Lakes



# Live Navigation

### **Amplify**Science

A new phenomena-based core curriculum for grades K–5











Guided Unit Internalization Part 1: Unit-level internalization			
Unit title:			
What is the phenomenon students are investigating i	n your unit?		
Unit Question:	Studer	nt role:	т.
By the end of the unit, students figure out	l		
What science ideas do students need to figure out in	order to explain the phenomenon?		

### Guided Unit Internalization Document

 $\infty$ 

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

Unit title:			
What is the phenomenon	students are investigating in you	r unit?	
Unit Question:			Student role:
By the end of the unit, stu	idents figure out		
What science ideas do stu	idents need to figure out in order		7

Planning for the Unit		Printable Resources
Unit Overview	~	Article Compilation
Unit Map	~	Coherence Flowchart
Progress Build	~	Copymaster Compilation
Getting Ready to Teach	~	Flextension Compilation
Materials and Preparation	~	Investigation Notebook
Science Background	~	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

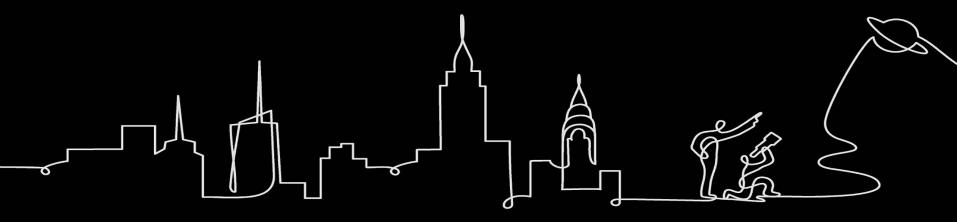


What are the Unit and Chapter Questions unit two?

Unit title:			
What is the phenomenon	students are investigating in your unit	2	
		Student role	
Unit Question:		Student role:	
By the end of the unit, stu			
By the end of the unit, stu	dents figure out		
By the end of the unit, stu	dents figure out		
By the end of the unit, stu	dents figure out		

Planning for the Unit		Printable Resources
Unit Overview	~	Mathematical Article Compilation
Unit Map	~	Coherence Flowchart
Progress Build	~	Copymaster Compilation
Getting Ready to Teach	~	Flextension 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?



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

Student role:
omenon?
omenon?

Planning for the Unit		Printable Resources
Unit Overview	~	Article Compilation
Unit Map	~	Coherence Flowchart
Progress Build	~	Copymaster Compilation
Getting Ready to Teach	~	Flextension 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?

Student role:
phenomenon?

Planning for the Unit		Printable Resources
Unit Overview	~	Article Compilation
Unit Map	~	Coherence Flowchart
Progress Build	~	Copymaster Compilation
Getting Ready to Teach	~	Flextension Compilation
Materials and Preparation	~	Investigation Notebook
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Standards at a Glance	~	Print Materials (8.5" x 11")
Teacher References		Print Materials (11" x 17")
Lesson Overview Compilation	~	Offline Preparation



#### **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** 



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!

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

### Science Seminar: Remote/Hybrid



#### Considering claims and evidence



Participating in the Science Seminar



#### Writing an argument

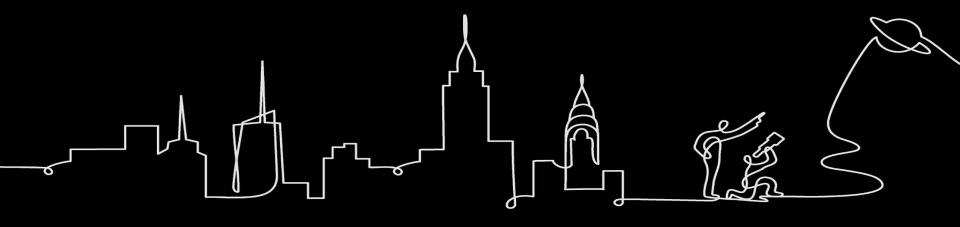








Reflect-Type-Chat! Share and Learn How can you adapt the science seminar for remote and hybrid instructional models?

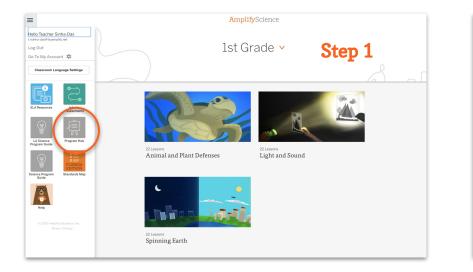


# Plan for the day

- Framing the day
- Unit Internalization
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/	Questions Reflections Connections	Unit 2 Planning Notes	
	Global Navigation		Program Hub Self Study

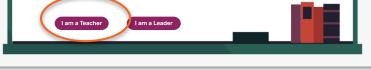


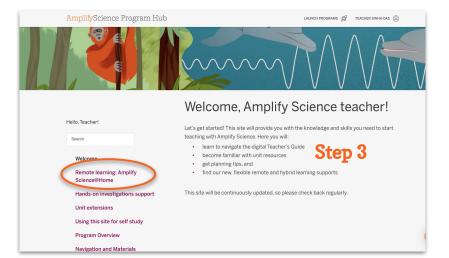
#### Step 2

#### 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:





Hello, Teacher! Search	use each one as a mo	d the @Home Videos directly to students via YouTube links, or odel to prepare for delivering the lesson yourself—live or ne Videos will also be available in English and Spanish.
Welcome	Grade-level reso	urces
Remote learning: Amplify Science@Home	Select your grade below to a distribute these materials ou	ccess the @Home resources. Please do not share or ttside of your district.
About Amplify Science@Home Grade-level resources @Home Resources Orientation Videos Additional resources Hands-on investigations support Unit extensions	<ul> <li>Kindergarten</li> <li>Grade 1</li> <li>Grade 2</li> <li>Grade 3</li> <li>Grade 4</li> <li>Grade 5</li> <li>Grade 6</li> <li>Grade 6</li> <li>Grade 7</li> <li>Grade 8</li> </ul>	<b>Step 4</b> (scroll down and choose your grade)
Using this site for self study Program Overview Navigation and Materials	Phome 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.	

Navigate to your unit on the Program Hub locate and record planning notes on:

# 1. Self-Study

# Resources

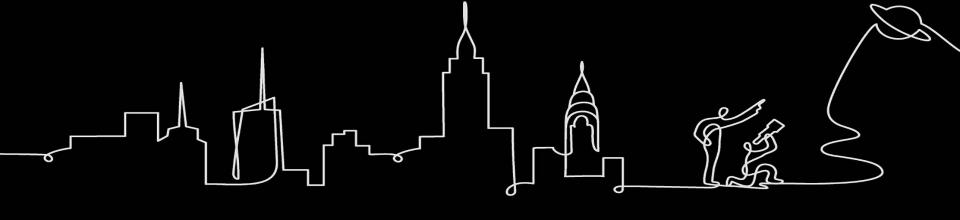
2. @Home Videos for Unit 3





# In Chat What are some possible uses for the Home Videos

Reflect-Type-Chat! Share and Learn Which self-study resource on the Program-Hub will you use most often and why?



## AmplifyScience@Home

**Updated Approach @Home Units** Packet or slide deck versions of Amplify Science units condensed by about 50%

See Updated Approach to Amplify Science @Home Materials! https://my.amplify.com/help/en/articles/460 0152-updated-approach-to-amplify-sciencehome-unit-student-materials





## Suggestions for Online Synchronous Time







#### **Online synchronous time**

Online discussions: It's worthwhile to establish norms and routines for online discussions in science to ensure equity of voice, turn-taking, etc.

**Digital tool demonstrations:** You can share your screen and demonstrate, or invite your students to share their screen and think-aloud as they use a Simulation or other digital tool.

Interactive read-alouds: Screen share a digital book or article, and pause to ask questions and invite discussion as you would in the classroom.

**Shared Writing:** This is a great opportunity for a collaborative document that all your students can contribute to.

**Co-constructed class charts:** You can create digital charts, or create physical charts in your home with student input.

#### page 14



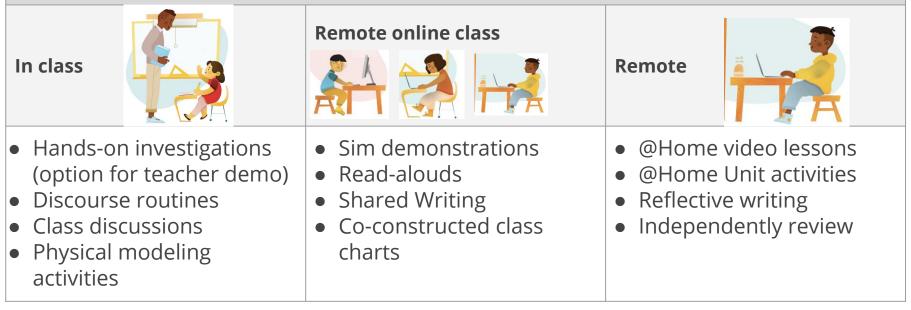
## Plan for the day

- Framing the day
- Unit Internalization
- Amplify Science @Home
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- Reflection and closing

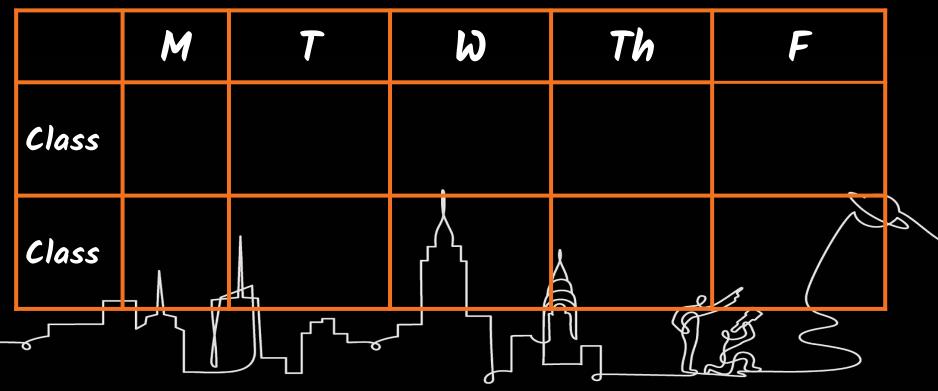


## Sample instructional scenario Hybrid pod model

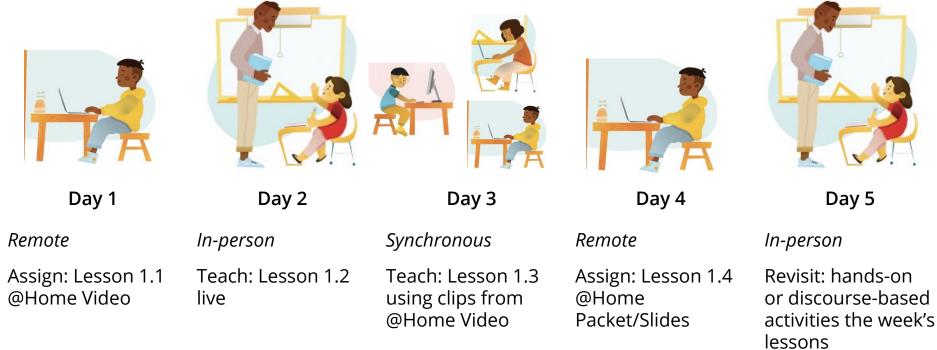
Select 1-2 lessons for the week and decide the best instructional format for the different parts of the lesson



# Think-Type-Chat<br/>Share and LearnTake a moment to think about your current<br/>instructional model. Please share in chat!



## @Home Resources example use case Hybrid Model: Teach live during in-person/synchronous time



# @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

## **Guided Planning**

## **Objectives**

- Use the resources we have explored to compare@Home lessons w/ in-class lessons.
- Use the lesson adaptation tool to adjust an in-class lesson for remote and hybrid learning.



## Lesson Adaptation Considerations

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)

#### AmplifyScience@Lesson Adaptation Tool (Remote/Hybrid)

Lesson:	Date:				
Lesson purpose: [Lesson Brief: Overview]	3-D connections and formative assessment opportunities:	Amplify Science sample lesson planning template cont. Part 2: Getting ready to teach Look at the Classroom Julies, edital tools, and books, as well as the Step-by-Step. T and Possible theoprose table in the Instructional Guide.			
				Teaching notes Consider:	Remote/Hybrid Ac Consider:
				<ul> <li>What will the students experience each activity?</li> <li>How does each activity support students in achieving the purpose the lesson?</li> <li>What do you feel comfortable wit</li> <li>What challenges might you encou in teaching this lesson, and how n you address these challenges?</li> </ul>	Differentiate     Time for lesson     Your classroom inst     Student's access to t     Add a hands on com
			Activity 1		
			Time:		
		_	Activity 2		
What the students will learn in this lesson and potential challenges.	How will the students be practicing the multiple modalities during this lesson?		Time:		
I O	-		Activity 3		
			Time:		
			Activity 4		
			Time:		
			Activity 5		
			Time:		
			L	I	1
			@ 2020	Amplify Education, inc. All trademarks and copyrights are the property o	Ampility or its licensors.
		_			

	Teaching notes	Remote/Hybrid Adaptation notes
	Consider:	Consider:
	What will the students experience in each activity?     How does each activity support students in achieving the purpose of the lesson?     What do you feel comfortable with?     What challenges might you encounter in teaching this lesson, and how might you address these challenges?	Materials will you need to prepare     Differentiate     Time for lesson     Your classroom instructional model     Student's access to technology     Tot party applications     Add a hands on component? (model vi     video Or complete during person     synchronous instruction)
Activity 1		
Time:		
Activity 2		
Time:		
Activity 3		
Time:		
Activity 4		
Time:		
Activity 5		
Time:		

Lesson Adaptation **Tool for Remote and** Hybrid Learning

#### AmplifyScience@Lesson Adaptation Tool (Remote/Hybrid)

Lesson:	Date:
Lesson purpose: [Lesson Brief: Overview]	3-D connections and formative assessment opportunities:
What the students will learn in this lesson and potential challenges.	How will the students be practicing the multiple modalities during this lesson?
	_

## Lesson Adaptation!

Choose a lesson and use the Lesson **Adaptation Tool to** begin recording planning information about the lesson.

#### Amplify Science sample lesson planning template cont.

#### Part 2: Getting ready to teach

Look at the Classroom Slides, digital tools, and books, as well as the Step-by-Step, Teacher Supports, and Possible Responses tabs in the Instructional Guide.

	Teaching notes	Remote/Hybrid Adaptation notes
	Consider:	Consider:
	<ul> <li>What will the students experience in each activity?</li> <li>How does each activity support students in achieving the purpose of the lesson?</li> <li>What do you feel comfortable with?</li> <li>What challenges might you encounter in teaching this lesson, and how might you address these challenges?</li> </ul>	<ul> <li>Materials will you need to prepare</li> <li>Differentiate</li> <li>Time for lesson</li> <li>Your classroom instructional model</li> <li>Student's access to technology</li> <li>3rd party applications</li> <li>Add a hands on component? (model via video Or complete during in person synchronous instruction)</li> </ul>
Activity 1		
Time:		
Activity 2		
Time:		
Activity 3		
Time:		
Activity 4		
Time:		
Activity 5		
Time:		

### **Lesson Adaptation!**

With the Lesson **Adaptation Tool** begin adjusting the lesson for remote and hybrid learning. Note begin with in-class slides

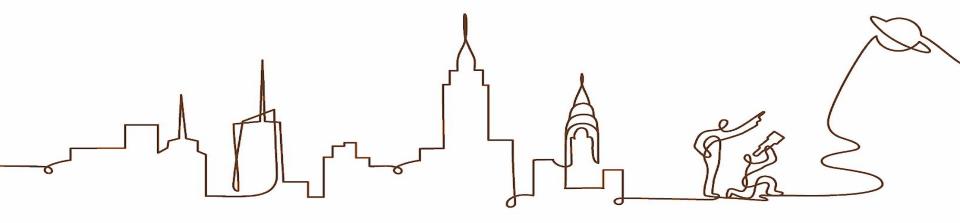
Amplify.

## Lesson Adaptation Considerations

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## **Differentiation** Quick Review of Lesson Level Brief



## Plan for the day

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### NYC Program Guide

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

#### https://my.amplify.com/programguide/ content/national/welcome/nyc/

### **Amplify Help**

Find lots of advice and answers from the Amplify team. **my.amplify.com/help** 





## **Customer Care**

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



scihelp@amplify.com

<u>)</u> 800-823-1969

