# Welcome to Amplify Science!

Do Now: Open auto-login site (or use your permanent account credentials) & explore Unit 2 as we wait to begin

Go to <a href="https://amplify.com/amplify-science-nyc-doe-review/">https://amplify.com/amplify-science-nyc-doe-review/</a>



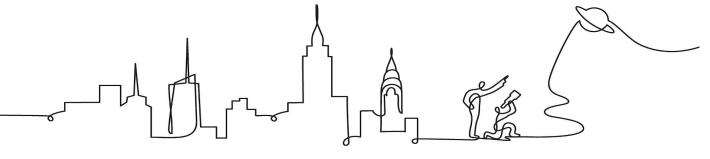
# Amplify Science New York City

3-Dimensional Learning in the Amplify Science K-5 Curriculum

Date xx

Grade 1

Presented by xx



# Goals for the session

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

- Unpack three-dimensional learning across Unit 2
- Analyze how students leverage focal science & engineering practices & cross-cutting concepts to figure out the unit 2 phenomenon & its associated disciplinary core ideas

## Norms: Establishing a culture of learners

- Take risks: Ask any questions, provide any answers.
- Participate: Share your thinking, participate in discussion and reflection.
- Be fully present: Unplug and immerse yourself in the moment.
- Physical needs: Stand up, get water, take breaks.

4

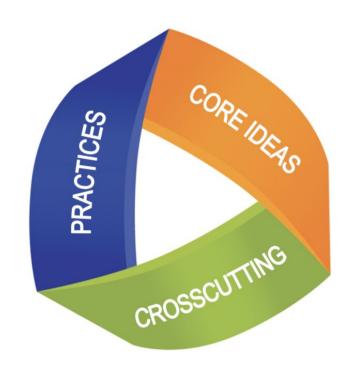
# Questions?





## Plan for the session

- Opening reflection
- Navigation refresher
- NYSSLS & the unit's phenomenon
- Three dimensions of the unit
  - Disciplinary core ideas
  - Science & engineering practices
  - Cross-cutting concepts
- Lesson planning
- Closing



# Opening reflection

Reflect on your experiencing using Amplify Science.

What has gone well for you and/or your students?

What has been challenging?

What have you learned?

What do you wonder?



# Navigating the standard Amplify Science curriculum

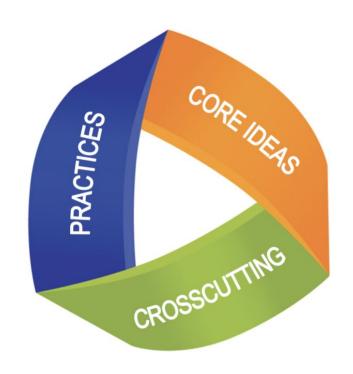
Pulse check: What's your comfort with the digital Teacher's Guide?

- 1: I have rarely or never navigated the digital Teacher's Guide
- 2: I have a little experience but I mostly feel lost
- 3: I can get around the Teacher's Guide but I don't feel that confident
- 4: I know what I'm doing but sometimes it's challenging to find things
- 5: I navigate with automaticity. I'm an expert.



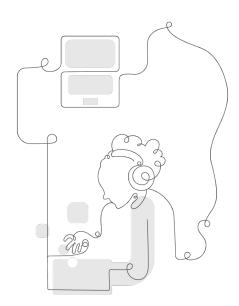
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# Navigating the standard Amplify Science curriculum Key aspects of navigating the digital Teacher's Guide

- Navigating to and between lessons
- Familiarity with the Lesson Brief
- Accessing the Unit Guide



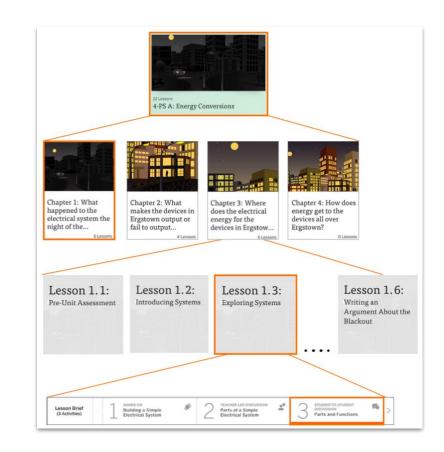
## Unit structure

Unit

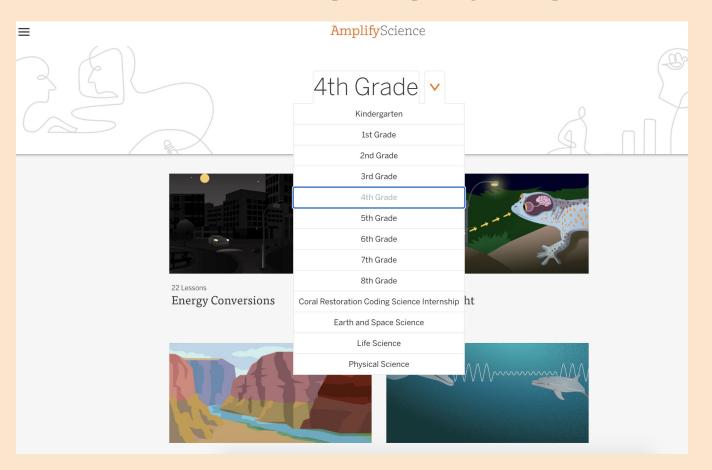
Chapter

Lesson

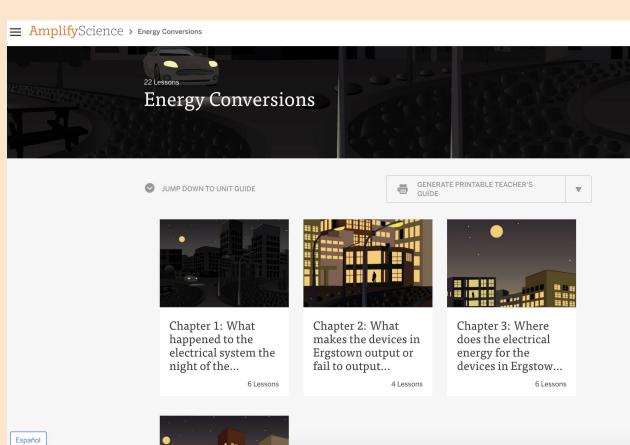
Activity



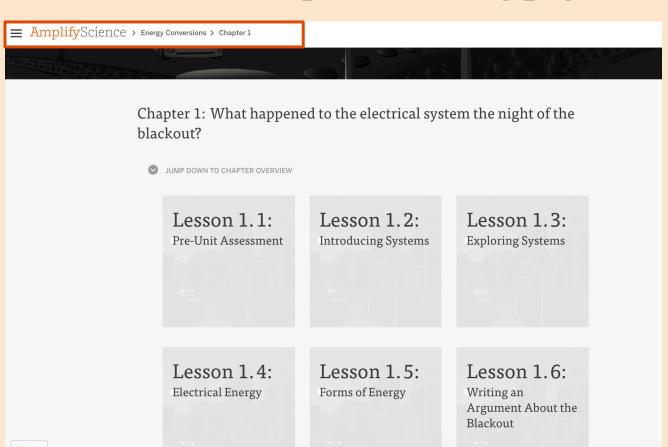
# Hidden slide: Navigating to your grade level



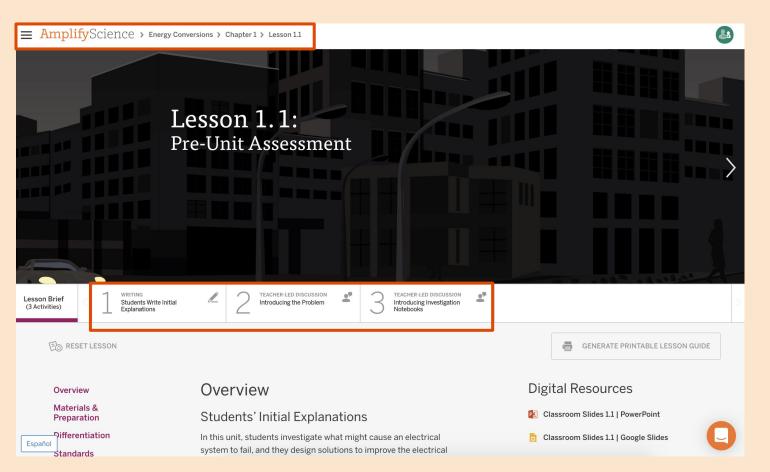
# Hidden slide: Unit landing page



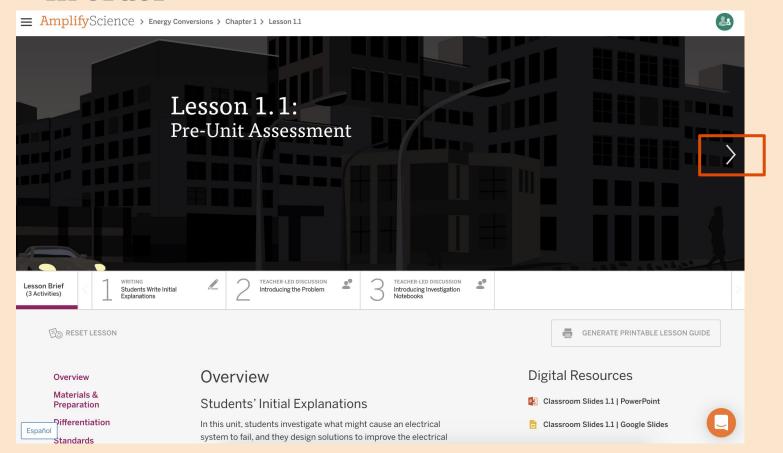
# Hidden slide: Chapter 1 landing page



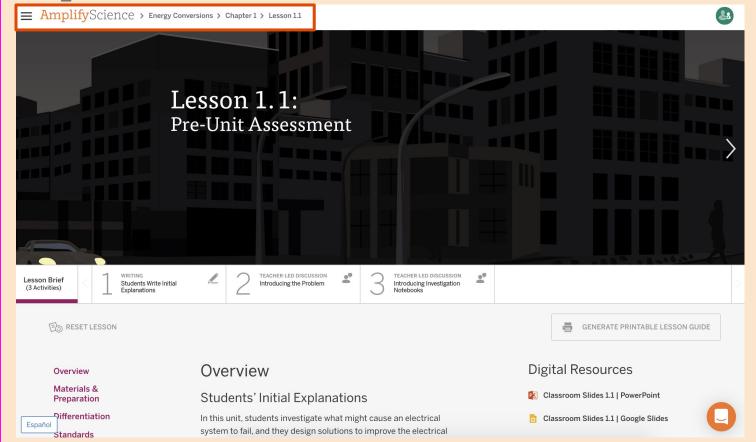
### Hidden slide: Lesson 1.1 Lesson Brief



# Hidden slide: Using arrows to navigate between lessons in order



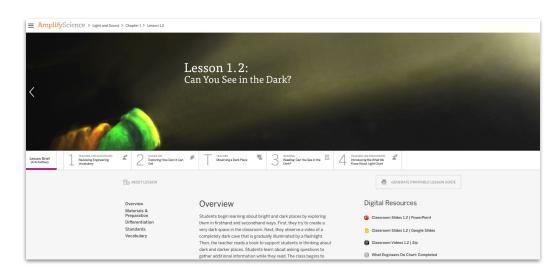
# Hidden slide: Using the breadcrumb trail to navigate to a specific lesson



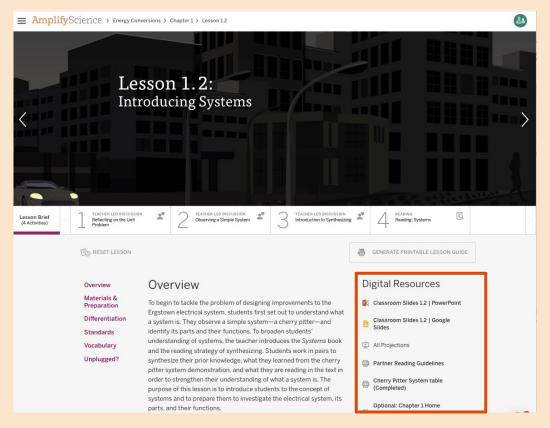
# Preparing to teach a lesson

### Lesson Brief

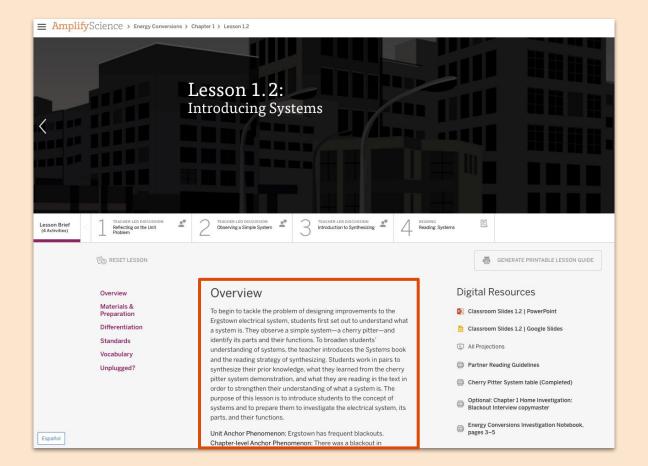
Use the Lesson Brief for information about lesson timing, materials and preparation, and differentiation suggestions.



# Hidden slide: Digital resources



### Hidden slide: Overview



# Hidden slide: Lesson at a Glance and floating menu

**■** AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.2

Overview

Materials & Preparation

Differentiation

Standards

Vocabulary

Unplugged?

#### Lesson at a Glance

#### 1: Reflecting on the Unit Problem (5 min.)

To prepare to begin their investigations, students reflect on the unit problem and their role as systems engineers.

#### 2: Observing a Simple System (15 min.)

As a first step toward building an understanding of how electrical systems work, students are introduced to an example of a simple system—a cherry pitter. Students observe the cherry pitter system to identify the parts of the system and their functions.

#### 3: Introduction to Synthesizing (15 min.)

The teacher introduces *Systems*, then introduces and models the reading strategy of synthesizing in order to prepare students to synthesize as they read the book with a partner.

#### 4: Reading: Systems (25 min.)

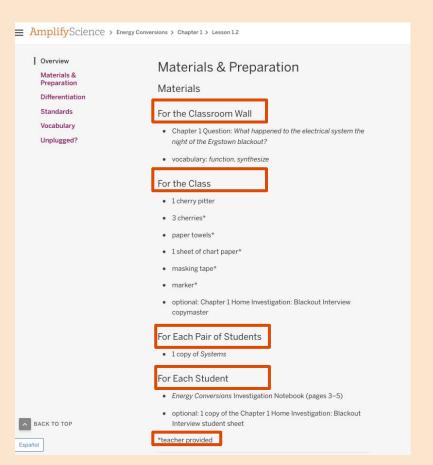
Partners read *Systems* and apply the synthesizing strategy to generate new ideas to help them answer the first Investigation Question: *What is a system?* Post-reading discussion provides students with an opportunity to hear the new ideas about systems that their classmates have generated. This activity also provides an On-the-Fly Assessment of students' developing ability to synthesize information as a reading strategy.

#### **Digital Resources**

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
- All Projections
- Partner Reading Guidelines
- Cherry Pitter System table (Completed)
- Optional: Chapter 1 Home Investigation:
  Blackout Interview copymaster
- Energy Conversions Investigation Notebook, pages 3–5

We'd love to hear from you! Submit your feedback here.

# Hidden slide: Materials and preparation



#### = AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.2 Preparation Overview Materials & Before the Day of the Lesson Preparation Differentiation 1. Gather the following materials for the classroom wall: Standards · Chapter 1 Question: What happened to the electrical system the night of the Ergstown blackout? Vocabulary Unplugged? · vocabulary: function, synthesize 2. Read Systems. Familiarize yourself with the book that students will read in this lesson. 3. Create the Partner Reading Guidelines. On chart paper, create these guidelines. (See Digital Resources for what the poster should look like.) You will keep this posted throughout the unit. If you don't have enough wall space, you'll need to take it down and repost it during the reading lessons. 4. Assign reading partners. Throughout the unit, we recommend that students read with partners. You may choose to assign the same reading partners throughout the unit or switch reading partners with each book. (See the Differentiation section for more recommendations about reading partners.) 5. Prepare for the Observing a Simple System activity, Locate the cherry pitter (in your Energy Conversions kit). In addition, you will need to provide cherries and paper towels. Familiarize yourself with the function of the cherry pitter. You may wish to practice using it to remove a cherry pit before doing so in front of your class. You will need one tray with the following materials: 1 cherry pitter · several cherries · paper towels 6. Prepare for On-the-Fly Assessment, There is an On-the-Fly A BACK TO TOP Assessment included in this lesson. In Activity 4, the assessment provides an opportunity to informally assess students' first Español attempts at synthesizing as a reading strategy. Select the

### Hidden slide: Differentiation

= AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.2



Overview

Materials & Preparation

Differentiation

Standards

Vocabulary

Unplugged?

#### Differentiation

#### Embedded Supports for Diverse Learners

Partner Reading. Reading with a partner provides opportunities for students to assist each other with reading—with using the reading strategy modeled by the teacher, with decoding, and with comprehension. Partner reading encourages discussion of the text during reading, which aids comprehension and engagement.

Supportive visuals in the book. The diagrams and tables in *Systems* are designed to clarify the meaning of the text and should support students' comprehension of concepts and ideas.

#### Potential Challenges in This Lesson

Reading-centered. Reading science texts is challenging, and the strategy of synthesizing may be unfamiliar to many students.

Students who struggle with reading in general may struggle with the reading in this lesson.

Synthesizing across activities. Synthesizing information from a variety of sources is a complex cognitive task and can be challenging for students. The synthesizing reading comprehension strategy may be new to students. Some students may find it difficult to incorporate new information from the reading into their growing understanding of systems. Keep in mind that students will have many opportunities over the course of the unit to learn to use this complex strategy.

#### **Digital Resources**

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
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- Partner Reading Guidelines
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A BACK TO TOP

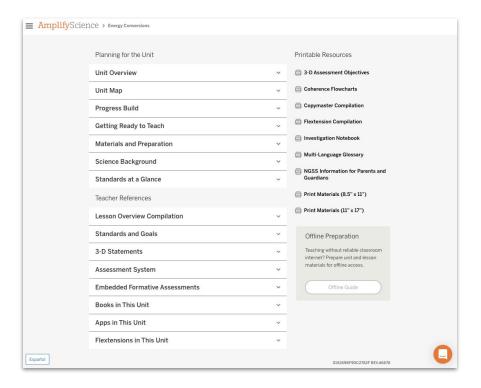
Specific Differentiation Strategies for English Learners



### Unit Guide

The Unit Guide is a collection of resources to support planning and day-to-day instruction in the unit.

You can access the Unit Guide on the Unit landing page below the chapter buttons.



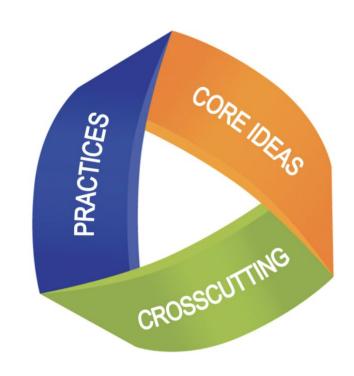
# Questions?





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Light and Sound



# Summary of unit phenomenon

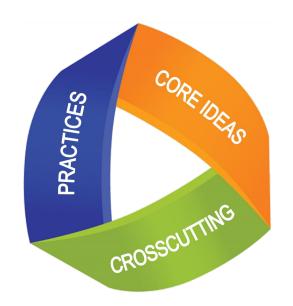
How can we use light and sound to design shadow scenery and sound effects for a puppet theater?

Students take on the dual role of light engineers and sound engineers for a puppet-show company as they investigate cause-and-effect relationships and learn about the nature of light and sound. They apply what they learn to designing shadow scenery and sound effects for a puppet show.

# NGSS/NYSSLS: KWL Chart

What I Know	What I Want to Know	What I Learned
28		Amplify.

## Three dimensions of NYSSLS



### Disciplinary Core Ideas

 Describe core ideas in the science discipline (DCI)

### Science and Engineering Practices

 Describe behaviors scientists and engineers engage in (SEP)

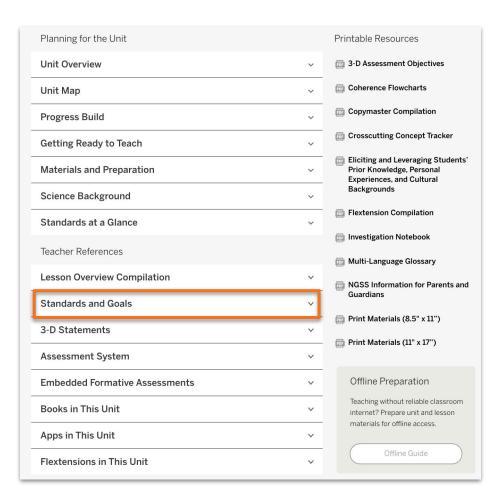
### **Crosscutting Concepts**

 Describe concepts linking the different domains of science (CCC)



# 3-dimensions of this unit Standards & Goals document

This document summarizes opportunities to engage with the science & engineering practices, which core ideas the unit addresses, & how students utilize the cross-cutting concepts in various modalities.

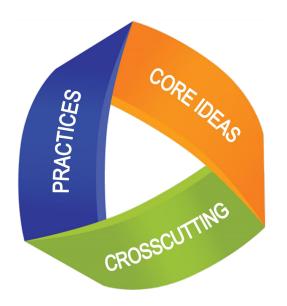


### Focal dimensions of the unit

### DCIs, SEPs, & CCCs

Open the unit's Standards & Goals document.

What are the unit's focal disciplinary core ideas, science & engineering practices, & cross-cutting concept(s)?



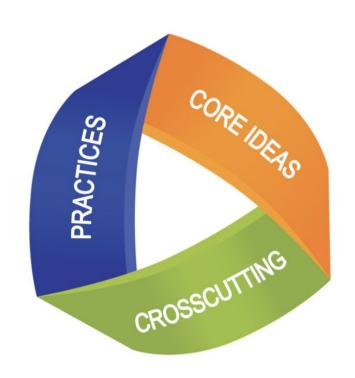
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# Disciplinary Core Ideas in this unit

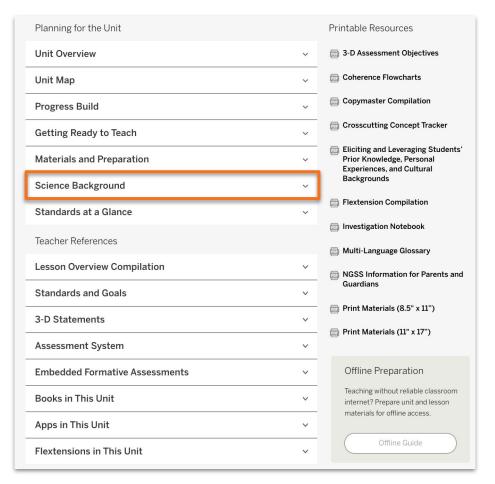
Digging deeper collaboratively



# The Disciplinary Core Ideas

### Science background document

The science background document provides an adult-level primer of key science content that is related to the disciplinary core ideas of the unit.

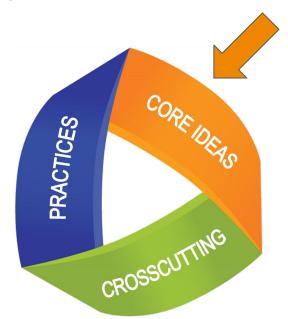


# Science Background

### Digging into the science content further

In breakout rooms, utilize the science background document to create a Google Slide poster of your assigned disciplinary core idea.

Be creative! Assign a spokesperson to "present" to the whole group.

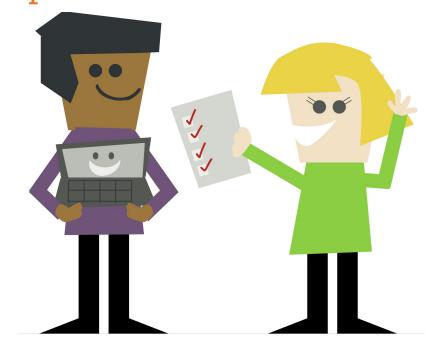


#### Whole group "presentations"

Disciplinary core ideas - digging deeper

Each group will showcase their Google Slides poster & highlight the main conceptual takeaways as it relates to their focal disciplinary core idea.

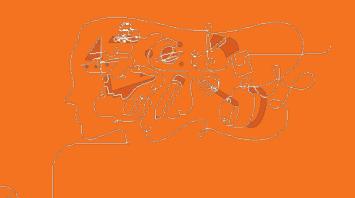
As you listen, take note of concepts you may need some refreshing on.



## Questions?



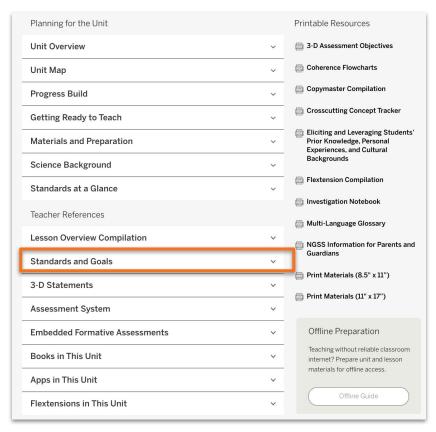
# Science & Engineering Practices in this unit Digging deeper collaboratively



#### The science & engineering practices

#### Standards & Goals document

The standards & goals document outlines the specific opportunities students have to engage with most of the science & engineering practices of the unit.



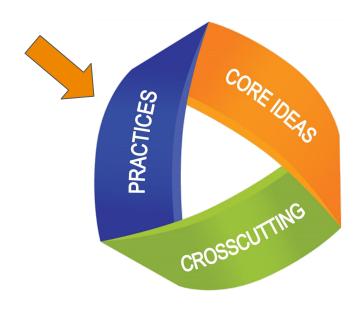
#### Standards & Goals

#### Digging into the science & engineering practices further

In breakout rooms, utilize the standards & goals document to create a visual summary of how students engage with your assigned science & engineering practice in a specific lesson.

The coherence flowchart may be useful in locating a specific lesson.

Be creative! Assign a spokesperson to "present" to the whole group.

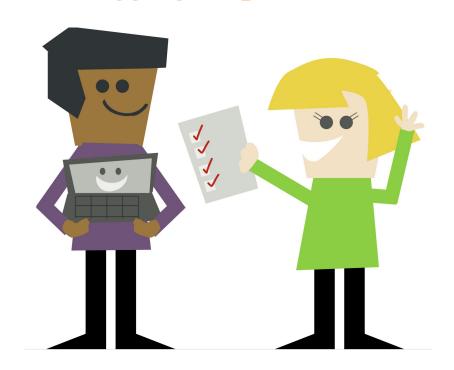


#### Whole group "presentations"

#### Science & engineering practices (SEP) - digging deeper

Each group will showcase their visual summary of their chosen lesson & highlight the main takeaways as it relates to the incorporation of their assigned science & engineering practice.

As you listen, take note of how you may consider scaffolding students' engagement in this SEP for the lesson presented.



## Questions?



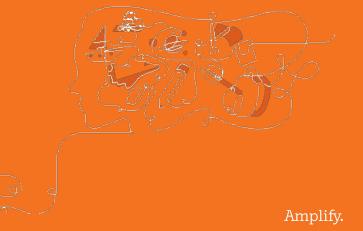
#### **BREAK**





## Cross-cutting concepts in this unit

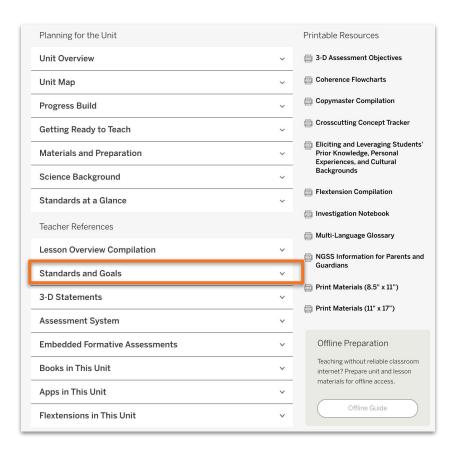
Digging deeper collaboratively



#### The cross-cutting concepts

#### Standards & Goals document

The standards & goals document describes how students utilize the focal cross-cutting concept in a variety of modalities throughout the unit.



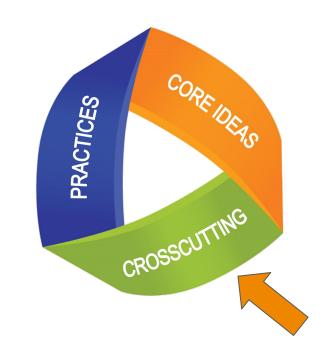
#### Standards & Goals

#### Digging into cross-cutting concepts further

In breakout rooms, utilize the standards & goals document to create a visual graphic organizer of how students engage with your assigned modality as it relates to the CCC in a specific lesson.

The coherence flowchart may be useful in locating a specific lesson.

Be creative! Assign a spokesperson to "present" to the whole group.

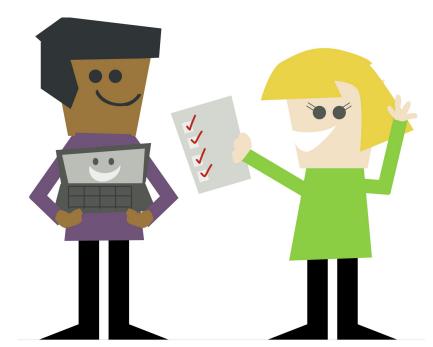


#### Whole group "presentations"

#### Cross-cutting concepts (CCC) - digging deeper

Each group will showcase their visual graphic organizer of their chosen lesson & highlight the main takeaways as it relates to student utilization of the CCC in the specific assigned modality.

As you listen, take note of how you may consider scaffolding students' utilization of the CCC for the lesson presented.



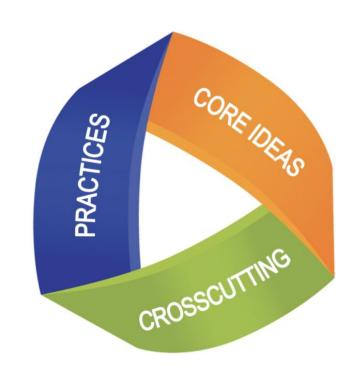
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#### Lesson planning

#### Individual work-time

We were able to get a preview of some lessons in this unit, specifically as they relate to the focal 3-dimensions of the NYSSLS.

Now it's time to take a look at other lessons of your choice.

Feel free to use the lesson planning template provided.

								_	
Unit:	Lesson:		Date:						
Unit Phenomenon:	Chapter Question:		Investigation Question:						
Besource: Lesson Brief (Overview, Standardoj) Lesson Purpose: How do the activities in this lesson fit toget	(Resources: Lesson Brief (Materials What materials do you ne		1	desources]] tou need to project?	Will student	nns need digital devices?			
now go the activities in this ressort fit toget		prepare to teach in	the format t	hat best fits your needs: 1) write			plate below, 2) download and		
How does this lesson engage students in the	Lesson Activity	How does each a support students answering the Im Question (or appi concepts to the C Question?	in estigation ying the key	What teacher moves will you need to add to support students in your classroom (partner or grouping structures, additional modeling or scaffolding, space considerations)?	What might be for your studer additional sup plan for indivic [Resources: Lesson (Differentiation)]	nts? What ports can you dual students?	Is there an opportunity to collect data about student understanding to inform instruction? How will you organize the data you collect?		Is there an opportunity to collect data about student understanding to inform
	Activity 1								instruction? How will you organize the data you collect?
	Activity 2								
		11							
		Activity 5							
		How will te	ching this le	n ta Glünce), Lesson Overview Comp esson fit into your class schedu n into activities over several da	e? Will you ys?	If the lesson is opportunity to	divided into activities over sev make sense of the evidence or uuestion and/or Chapter Quest	ollected	ys, when will students have the and apply it back to the

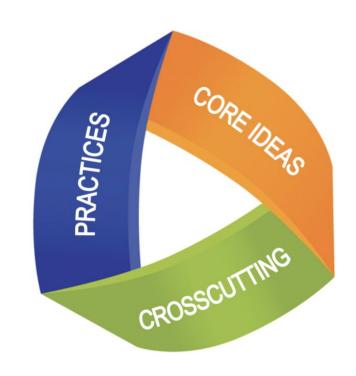
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- Unpack three-dimensional learning across Unit 2
- Analyze how students leverage focal science & engineering practices & cross-cutting concepts to figure out the unit 2 phenomenon & its associated disciplinary core ideas

#### Closing reflection

Based on our work today, share:

Head: something you'll keep in mind

**Heart:** something you're feeling

Feet: something you're planning to do

#### Additional resources and ongoing support

#### **Customer Care**

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-10PM EST and weekends 10AM-6PM EST.



help@amplify.com



800-823-1969



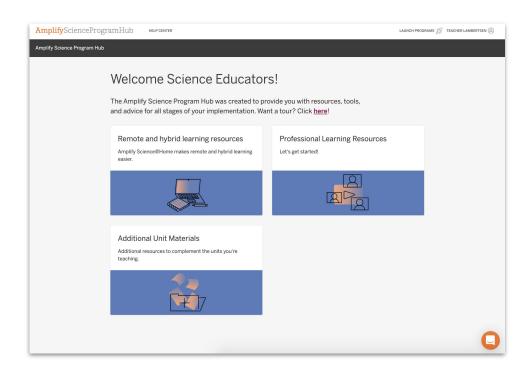
Amplify Chat



#### Program Hub

Use the Amplify Science Program
Hub to find useful resources for
implementing Amplify Science,
including unit overview videos and
planning tools.

The Program Hub also contains remote and hybrid learning resources.



#### New York City Resources Site

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



#### Amplify.

#### Amplify Science Resources for NYC (K-5)

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

UPDATE: Summer 2020

Introduction

Getting started resources

Planning and implementation resources

Admin resources

Parent resources

COVID-19 Remote learning resources 2020

Professional learning resources

Questions

#### UPDATE: Summer 2020

Account Access: It's an exciting time for Amplify Schave access to the many updates and upgrades in or your regular credentials to login and begin your sur curriculum until late August/early September whe rosters from STARS.

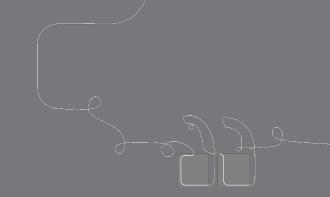
#### **Site Resources**

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

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

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





#### Please provide us feedback!

**URL:** https://www.surveymonkey.com/r/5DQW2T6

**Presenter name:** 

**Session Title**: Three-Dimensional Learning in the Amplify

Science K-5 Curriculum



Amplify.

Thank you & be well!







