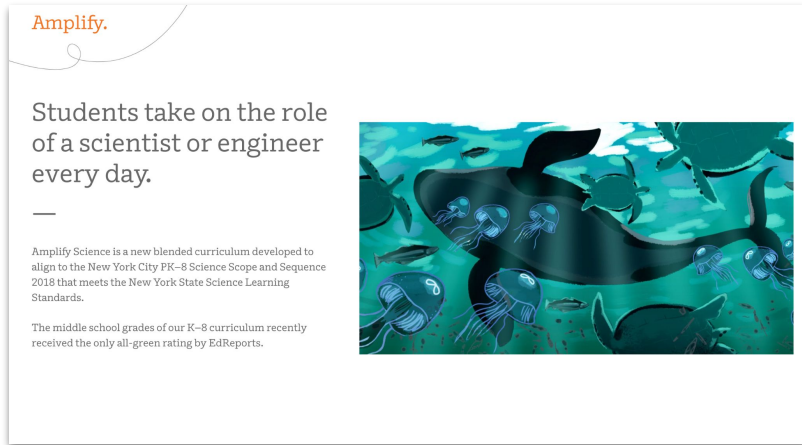


Welcome to Amplify Science!

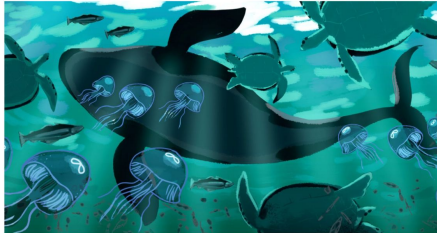
Do Now: Open auto-login site (or use your permanent account credentials) & explore Unit 2 as we wait to begin

Go to <https://amplify.com/amplify-science-nyc-doe-review/>




Amplify.

Students take on the role of a scientist or engineer every day.



Amplify Science is a new blended curriculum developed to align to the New York City PK–8 Science Scope and Sequence 2018 that meets the New York State Science Learning Standards.

The middle school grades of our K–8 curriculum recently received the only all-green rating by EdReports.



Begin your review

Begin your review

- What sets Amplify Science apart?
- The Amplify Science approach
- Components overview
- Review grades K–5
- Review grades 6–8
- Watch an overview
- Ready to order?

Grades K–5

Grades 6–8

What sets Amplify Science apart?

- Aligned to the New York City PK–8 Science Scope and Sequence 2018, and meets New York State Science Learning Standards.

Click your grade band & then follow prompts

Amplify Science

New York City

3-Dimensional Learning in the Amplify Science K-5 Curriculum Grade 4

Date xx

Presented by xx

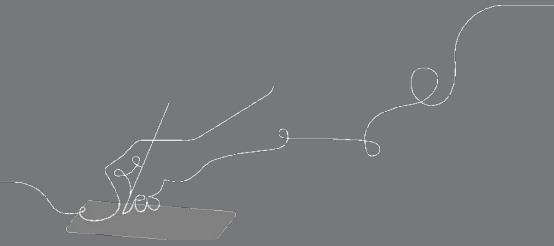


Goals for the session

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

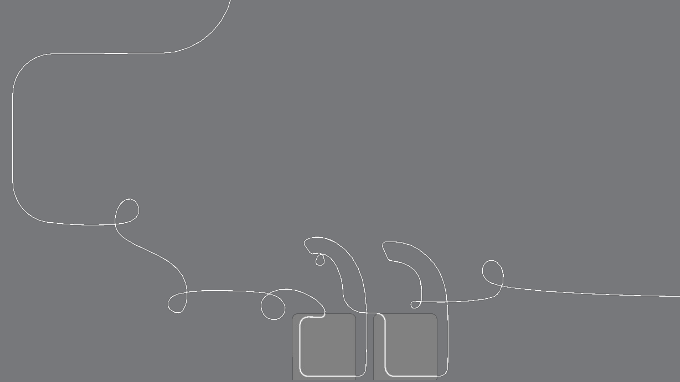
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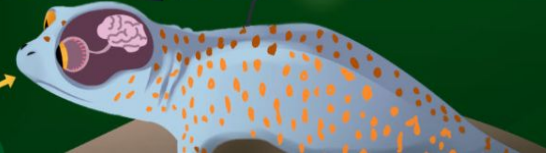


Norms: Establishing a culture of learners

- **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.

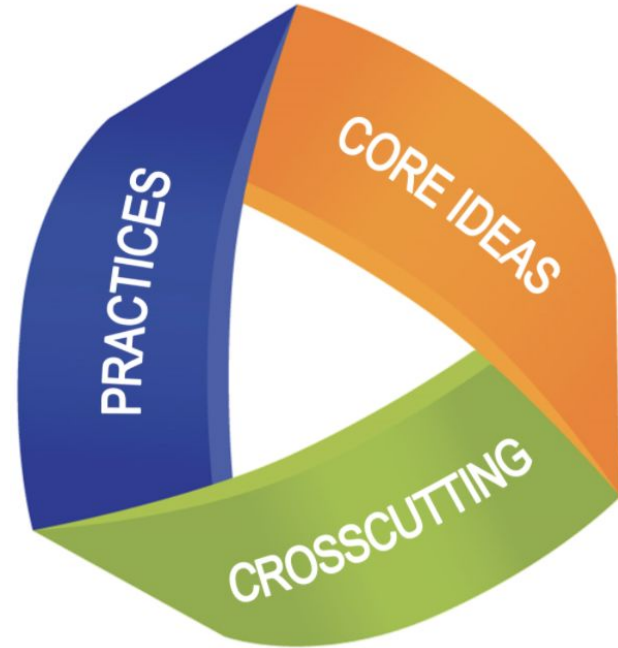
Questions?





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

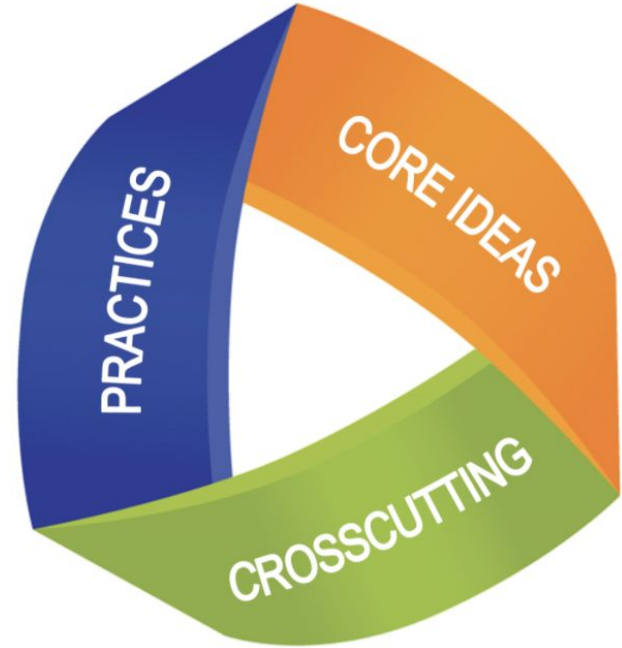
Pulse check: What's your comfort with the digital Teacher's Guide?

- 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.



Plan for the session

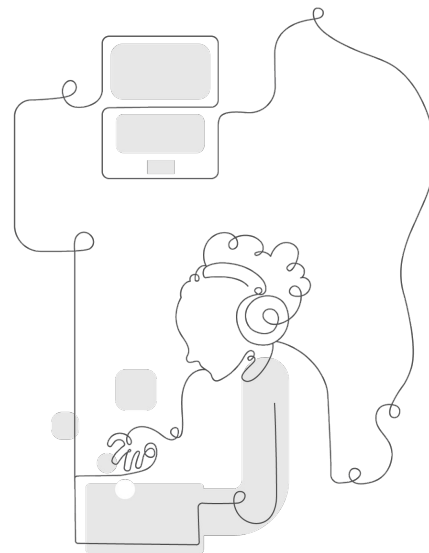
- Opening reflection
- **Navigation refresher**
- NYSSLS & the unit's phenomenon
- Three dimensions of the unit
 - Disciplinary core ideas
 - Science & engineering practices
 - Cross-cutting concepts
- Lesson planning
- Closing



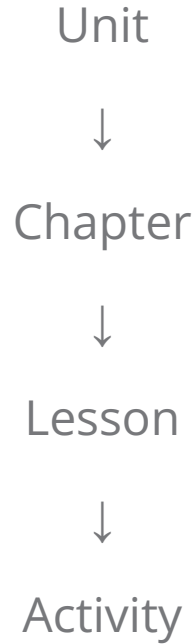
Navigating the standard Amplify Science curriculum

Key aspects of navigating the digital Teacher's Guide

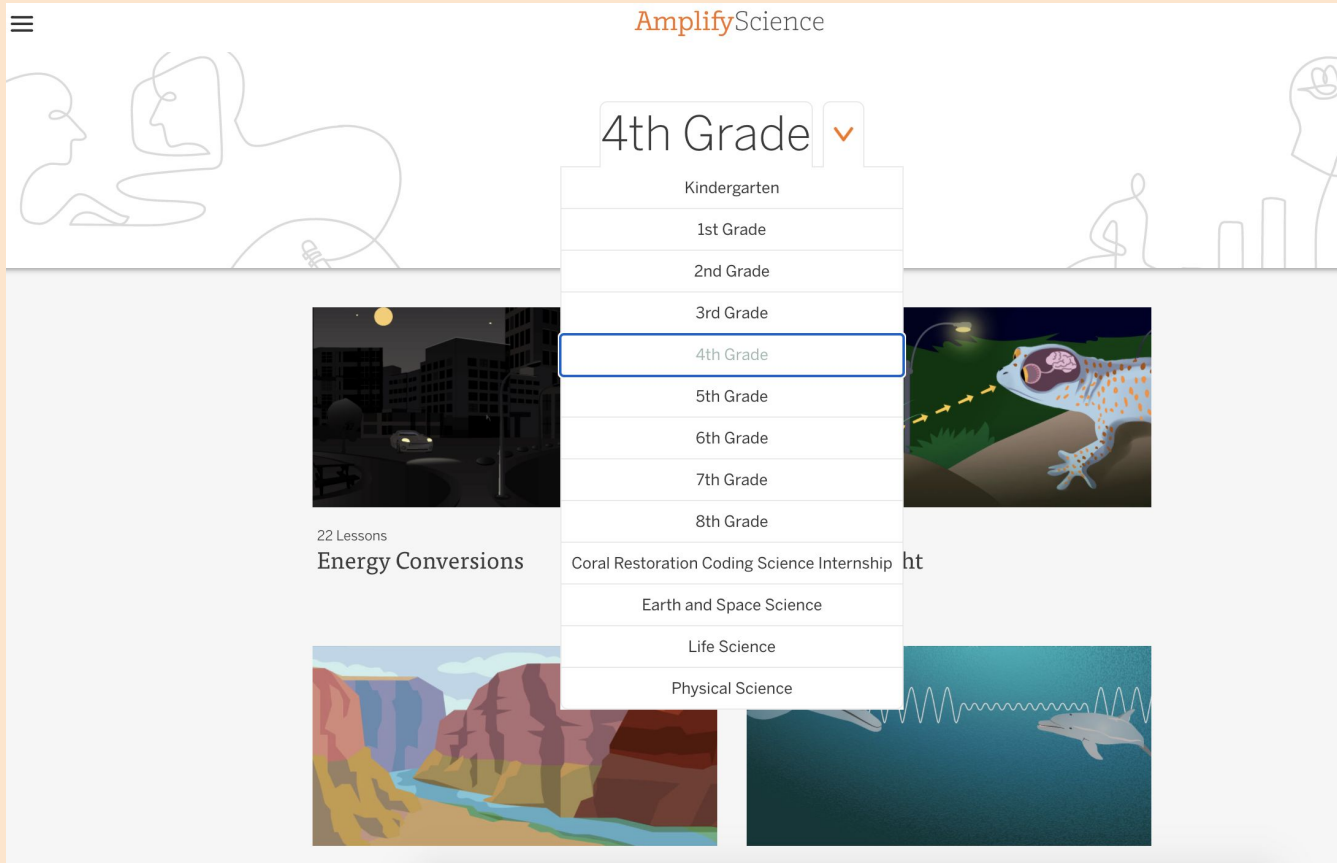
- Navigating to and between lessons
- Familiarity with the Lesson Brief
- Accessing the Unit Guide



Unit structure



Hidden slide: Navigating to your grade level



The screenshot shows the AmplifyScience website interface. At the top, the logo "AmplifyScience" is displayed. A navigation menu is open, showing a list of grade levels from Kindergarten to 8th Grade, with "4th Grade" highlighted. Below the menu, there are three main content areas: "Energy Conversions" (22 Lessons) with a city night scene, "Coral Restoration Coding Science Internship" with a frog illustration, and "Earth and Space Science" with a canyon landscape. The "Life Science" section is partially visible at the bottom right with a dolphin illustration.

AmplifyScience

4th Grade ▾

- Kindergarten
- 1st Grade
- 2nd Grade
- 3rd Grade
- 4th Grade
- 5th Grade
- 6th Grade
- 7th Grade
- 8th Grade

22 Lessons
Energy Conversions

Coral Restoration Coding Science Internship

Earth and Space Science

Life Science

Physical Science

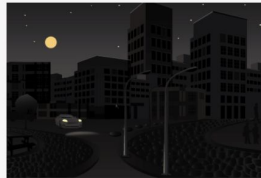
Hidden slide: Unit landing page

22 Lessons

Energy Conversions

☑ JUMP DOWN TO UNIT GUIDE

🖨 GENERATE PRINTABLE TEACHER'S GUIDE



Chapter 1: What happened to the electrical system the night of the...

6 Lessons



Chapter 2: What makes the devices in Ergstown output or fail to output...

4 Lessons



Chapter 3: Where does the electrical energy for the devices in Ergstown...

6 Lessons



Hidden slide: Chapter 1 landing page

Chapter 1: What happened to the electrical system the night of the blackout?

▼ JUMP DOWN TO CHAPTER OVERVIEW

Lesson 1.1:
Pre-Unit Assessment

Lesson 1.2:
Introducing Systems

Lesson 1.3:
Exploring Systems

Lesson 1.4:
Electrical Energy

Lesson 1.5:
Forms of Energy

Lesson 1.6:
Writing an
Argument About the
Blackout

Hidden slide: Lesson 1.1 Lesson Brief



Lesson 1.1: Pre-Unit Assessment



Lesson Brief
(3 Activities)

1

WRITING
Students Write Initial
Explanations



2

TEACHER-LED DISCUSSION
Introducing the Problem



3

TEACHER-LED DISCUSSION
Introducing Investigation
Notebooks



RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

Overview

Materials &
Preparation

Español
Differentiation
Standards

Overview

Students' Initial Explanations

In this unit, students investigate what might cause an electrical system to fail, and they design solutions to improve the electrical

Digital Resources

Classroom Slides 1.1 | PowerPoint

Classroom Slides 1.1 | Google Slides



Hidden slide: Using arrows to navigate between lessons in order



Lesson 1.1: Pre-Unit Assessment



Lesson Brief
(3 Activities)

1 WRITING
Students Write Initial
Explanations

2 TEACHER-LED DISCUSSION
Introducing the Problem

3 TEACHER-LED DISCUSSION
Introducing Investigation
Notebooks

RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

Overview

Materials &
Preparation

Spanish
Differentiation
Standards

Overview

Students' Initial Explanations

In this unit, students investigate what might cause an electrical system to fail, and they design solutions to improve the electrical

Digital Resources

Classroom Slides 1.1 | PowerPoint

Classroom Slides 1.1 | Google Slides



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

AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.1

Lesson 1.1: Pre-Unit Assessment

Lesson Brief (3 Activities) < 1 WRITING Students Write Initial Explanations 2 TEACHER-LED DISCUSSION Introducing the Problem 3 TEACHER-LED DISCUSSION Introducing Investigation Notebooks >

RESET LESSON GENERATE PRINTABLE LESSON GUIDE

Overview

Materials & Preparation

Differentiation

Standards

Overview

Students' Initial Explanations

In this unit, students investigate what might cause an electrical system to fail, and they design solutions to improve the electrical

Digital Resources

- Classroom Slides 1.1 | PowerPoint
- Classroom Slides 1.1 | Google Slides

Español

Preparing to teach a lesson

Lesson Brief

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

The screenshot shows the AmplifyScience interface for Lesson 1.2: Introducing Animal Senses. The header includes the AmplifyScience logo and navigation: Vision and Light > Chapter 1 > Lesson 1.2. The main banner features a blue spotted salamander on a rock against a dark background with green foliage. The title 'Lesson 1.2: Introducing Animal Senses' is centered in the banner. Below the banner is a progress bar with three steps: 1. Identify the Using Senses to Get Information, 2. Identify the Structure and Function, and 3. Prepare the Introduction. Below the progress bar are buttons for 'RESET LESSON' and 'GENERATE PRINTABLE LESSON GUIDE'. The main content area is divided into three columns: 'Overview Materials & Preparation Differentiation Standards Vocabulary Unplugged?', 'Overview' (with a paragraph of text), and 'Digital Resources' (listing Classroom Slides 1.2 | PowerPoint, Classroom Slides 1.2 | Google Slides, All Projections, and Careful Smelling).

Hidden slide: Digital resources

AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.2

Lesson 1.2: Introducing Systems

Lesson Brief (4 Activities) | 1 TEACHER-LED DISCUSSION Reflecting on the Unit Problem | 2 TEACHER-LED DISCUSSION Observing a Simple System | 3 TEACHER-LED DISCUSSION Introduction to Synthesizing | 4 READING Reading: Systems

RESET LESSON | GENERATE PRINTABLE LESSON GUIDE

Overview

To begin to tackle the problem of designing improvements to the Ergstown electrical system, students first set out to understand what a system is. They observe a simple system—a cherry pitter—and identify its parts and their functions. To broaden students' understanding of systems, the teacher introduces the *Systems* book and the reading strategy of synthesizing. Students work in pairs to synthesize their prior knowledge, what they learned from the cherry pitter system demonstration, and what they are reading in the text in order to strengthen their understanding of what a system is. The purpose of this lesson is to introduce students to the concept of systems and to prepare them to investigate the electrical system, its parts, and their functions.

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

Hidden slide: Overview

AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.2

Lesson 1.2: Introducing Systems

Lesson Brief (4 Activities)

- 1 TEACHER-LED DISCUSSION
Reflecting on the Unit Problem
- 2 TEACHER-LED DISCUSSION
Observing a Simple System
- 3 TEACHER-LED DISCUSSION
Introduction to Synthesizing
- 4 READING
Reading: Systems

RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

Overview

To begin to tackle the problem of designing improvements to the Ergstown electrical system, students first set out to understand what a system is. They observe a simple system—a cherry pitter—and identify its parts and their functions. To broaden students' understanding of systems, the teacher introduces the *Systems* book and the reading strategy of synthesizing. Students work in pairs to synthesize their prior knowledge, what they learned from the cherry pitter system demonstration, and what they are reading in the text in order to strengthen their understanding of what a system is. The purpose of this lesson is to introduce students to the concept of systems and to prepare them to investigate the electrical system, its parts, and their functions.

Unit Anchor Phenomenon: Ergstown has frequent blackouts.
Chapter-level Anchor Phenomenon: There was a blackout in

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

Español

Hidden slide: Lesson at a Glance and floating menu

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

Overview
Materials & Preparation
Differentiation
Standards
Vocabulary
Unplugged?

Materials & Preparation

Materials

For the Classroom Wall

- Chapter 1 Question: *What happened to the electrical system the night of the Ergstown blackout?*
- vocabulary: *function, synthesize*

For the Class

- 1 cherry pitter
- 3 cherries*
- paper towels*
- 1 sheet of chart paper*
- masking tape*
- marker*
- optional: Chapter 1 Home Investigation: Blackout Interview copymaster

For Each Pair of Students

- 1 copy of *Systems*

For Each Student

- Energy Conversions* Investigation Notebook (pages 3–5)
- optional: 1 copy of the Chapter 1 Home Investigation: Blackout Interview student sheet

*teacher provided

BACK TO TOP

Español

AmplifyScience > Energy Conversions > Chapter 1 > Lesson 1.2

Overview
Materials & Preparation
Differentiation
Standards
Vocabulary
Unplugged?

Preparation

Before the Day of the Lesson

- Gather the following materials for the classroom wall:
 - Chapter 1 Question: *What happened to the electrical system the night of the Ergstown blackout?*
 - vocabulary: *function, synthesize*
- Read Systems.** Familiarize yourself with the book that students will read in this lesson.
- 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.
- 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.)
- 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
- Prepare for On-the-Fly Assessment.** There is an On-the-Fly Assessment included in this lesson. In Activity 4, the assessment provides an opportunity to informally assess students' first attempts at synthesizing as a reading strategy. Select the

BACK TO TOP

Español

Hidden slide: Differentiation



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.

Specific Differentiation Strategies for English Learners

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



Unit Guide

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

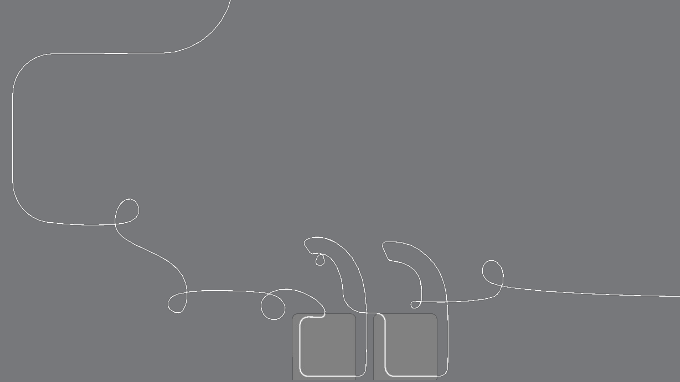
You can access the Unit Guide on the Unit landing page below the chapter buttons.

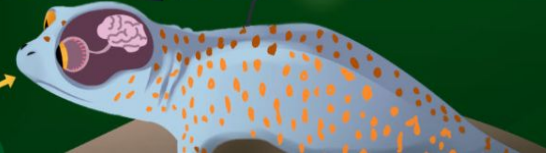
The screenshot displays the AmplifyScience interface for the 'Energy Conversions' unit. The page is organized into several sections:

- Planning for the Unit:** A list of resources with dropdown arrows, including Unit Overview, Unit Map, Progress Build, Getting Ready to Teach, Materials and Preparation, Science Background, and Standards at a Glance.
- Teacher References:** A list of resources including Lesson Overview Compilation, Standards and Goals, 3-D Statements, Assessment System, Embedded Formative Assessments, Books in This Unit, Apps in This Unit, and Flexions in This Unit.
- Printable Resources:** A list of downloadable materials such as 3-D Assessment Objectives, Coherence Flowcharts, Copymaster Compilation, Flexension Compilation, Investigation Notebook, Multi-Language Glossary, NGSS Information for Parents and Guardians, and two versions of Print Materials (8.5" x 11" and 11" x 17").
- Offline Preparation:** A section with the text 'Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.' and a button labeled 'Offline Guide'.

At the bottom left, there is a language selector for 'Español'. At the bottom right, there is a version number '015269BF9DC2782F REV.46678' and a small orange icon.

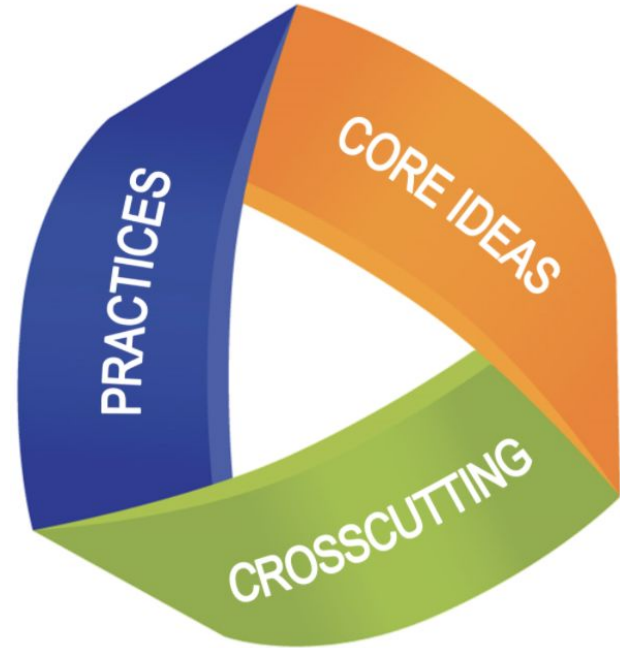
Questions?





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





Summary of unit phenomenon

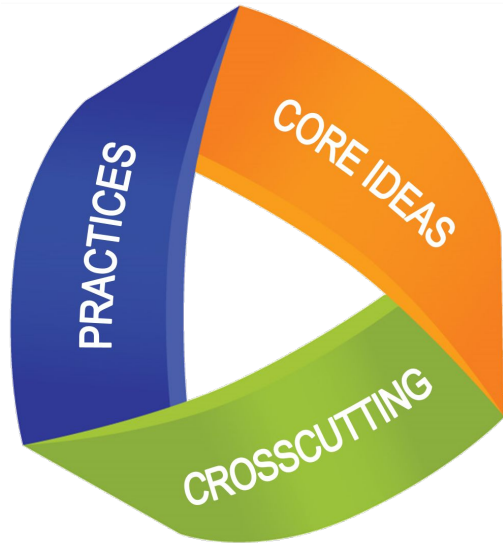
Why is an increase in light affecting the health of Tokay geckos in a Philippine rain forest?

Working as conservation biologists, students figure out why a population of Tokay geckos has decreased since the installation of new highway lights in the rain forest. Students use their understanding of vision, light, and information processing to figure out why an increase in light in the geckos' habitat is affecting the population. Then students turn their attention to humans by designing their own investigations in order to learn more about how our senses help us survive.

NGSS/NYSSLS: KWL Chart

What I Know	What I Want to Know	What I Learned

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.

The image shows a digital interface with a menu of resources. The menu is organized into sections: 'Planning for the Unit', 'Teacher References', and 'Printable Resources'. The 'Standards and Goals' item is highlighted with an orange border. The 'Printable Resources' section includes various PDF documents such as '3-D Assessment Objectives', 'Coherence Flowcharts', and 'Investigation Notebook'. At the bottom right, there is a section for 'Offline Preparation' with a button labeled 'Offline Guide'.

Planning for the Unit	Printable Resources
Unit Overview	3-D Assessment Objectives
Unit Map	Coherence Flowcharts
Progress Build	Copymaster Compilation
Getting Ready to Teach	Crosscutting Concept Tracker
Materials and Preparation	Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds
Science Background	Flexension Compilation
Standards at a Glance	Investigation Notebook
Teacher References	Multi-Language Glossary
Lesson Overview Compilation	NGSS Information for Parents and Guardians
Standards and Goals	Print Materials (8.5" x 11")
3-D Statements	Print Materials (11" x 17")
Assessment System	
Embedded Formative Assessments	
Books in This Unit	
Apps in This Unit	
Flexensions in This Unit	

Offline Preparation

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

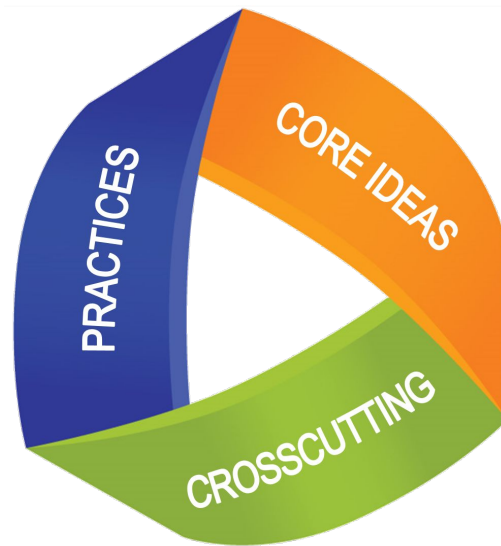
Offline Guide

Focal dimensions of the unit

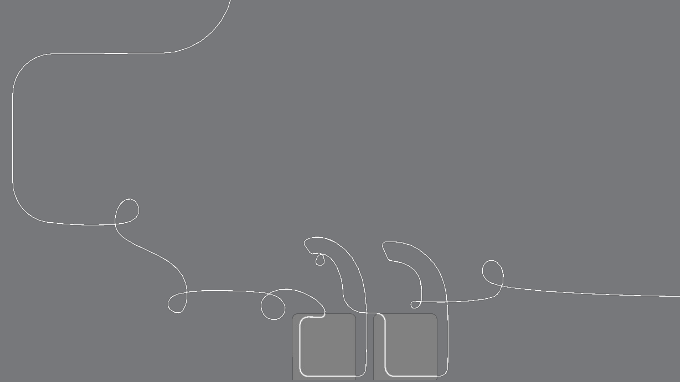
DCIs, SEPs, & CCCs

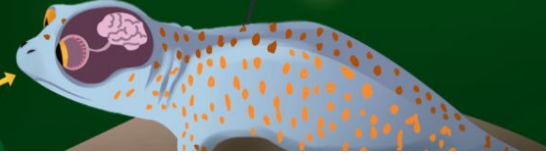
Open the unit's Standards & Goals document.

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



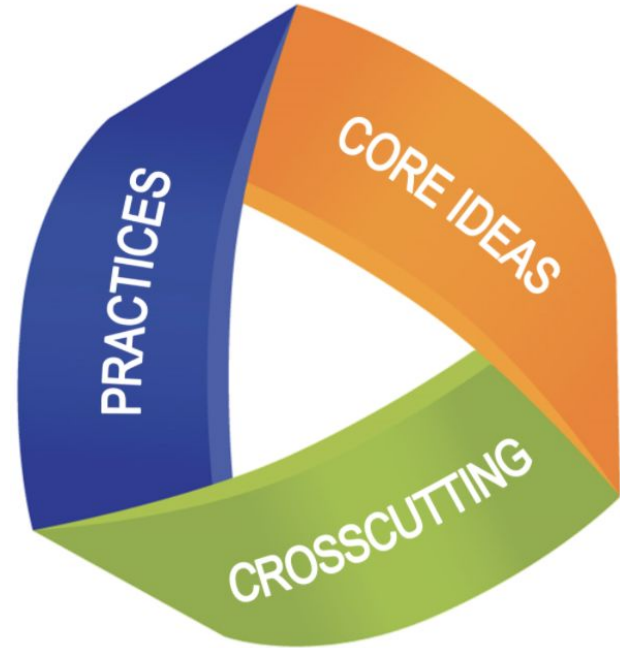
Questions?





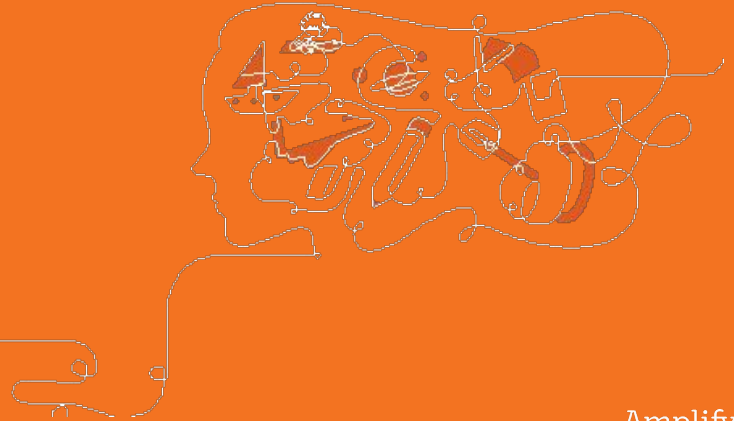
Plan for the session

- 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



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.

The screenshot displays a digital resource interface with a table of contents on the left and a list of printable resources on the right. The 'Science Background' item in the table of contents is highlighted with an orange border. The interface is organized into several sections: 'Planning for the Unit', 'Teacher References', 'Printable Resources', and 'Offline Preparation'.

Planning for the Unit	
Unit Overview	▼
Unit Map	▼
Progress Build	▼
Getting Ready to Teach	▼
Materials and Preparation	▼
Science Background	▼
Standards at a Glance	▼

Teacher References	
Lesson Overview Compilation	▼
Standards and Goals	▼
3-D Statements	▼
Assessment System	▼
Embedded Formative Assessments	▼
Books in This Unit	▼
Apps in This Unit	▼
Flexextensions in This Unit	▼

Printable Resources	
3-D Assessment Objectives	
Coherence Flowcharts	
Copymaster Compilation	
Crosscutting Concept Tracker	
Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds	
Flexextension Compilation	
Investigation Notebook	
Multi-Language Glossary	
NGSS Information for Parents and Guardians	
Print Materials (8.5" x 11")	
Print Materials (11" x 17")	

Offline Preparation

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

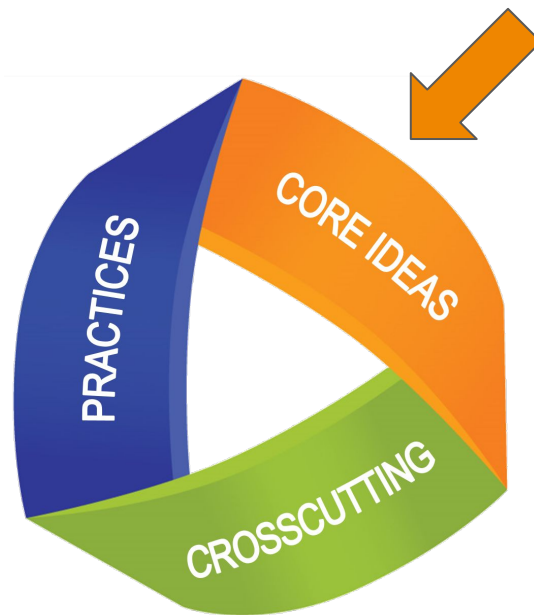
Offline Guide

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.

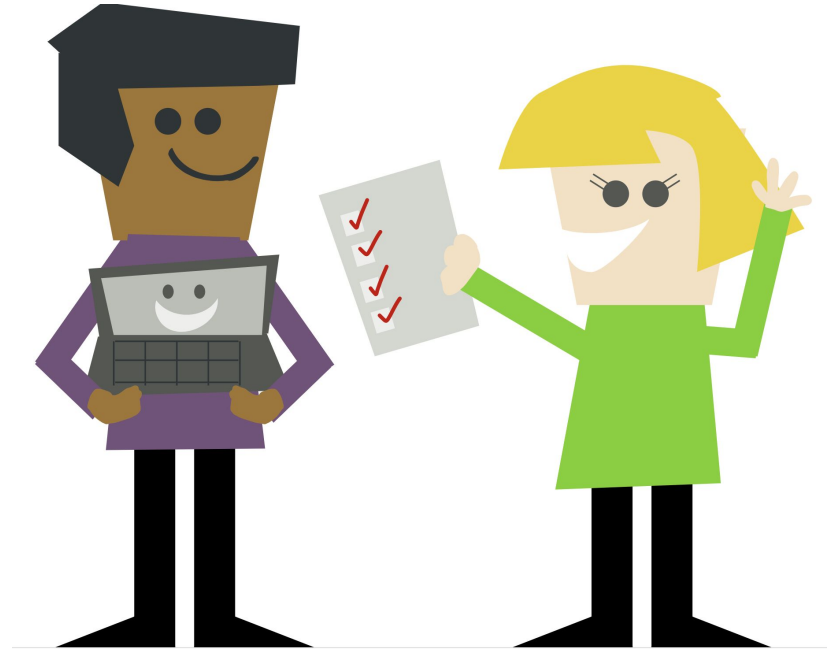


Whole group “presentations”

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.

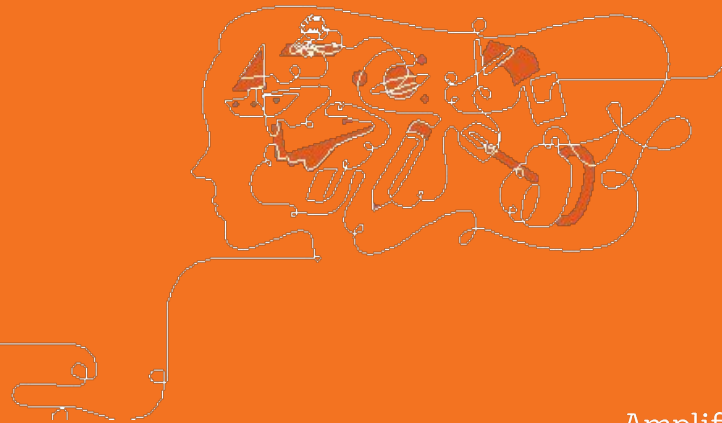


Questions?



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.

The image shows a screenshot of a digital resource menu. The menu is organized into several sections: 'Planning for the Unit', 'Teacher References', 'Printable Resources', and 'Offline Preparation'. The 'Standards and Goals' item under 'Teacher References' is highlighted with an orange border. The 'Printable Resources' section contains several PDF icons and titles, including '3-D Assessment Objectives', 'Coherence Flowcharts', 'Copymaster Compilation', 'Crosscutting Concept Tracker', 'Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds', 'Flextension Compilation', 'Investigation Notebook', 'Multi-Language Glossary', 'NGSS Information for Parents and Guardians', 'Print Materials (8.5" x 11")', and 'Print Materials (11" x 17")'. The 'Offline Preparation' section includes a text box with instructions and an 'Offline Guide' button.

Planning for the Unit	Printable Resources
Unit Overview	3-D Assessment Objectives
Unit Map	Coherence Flowcharts
Progress Build	Copymaster Compilation
Getting Ready to Teach	Crosscutting Concept Tracker
Materials and Preparation	Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds
Science Background	Flextension Compilation
Standards at a Glance	Investigation Notebook
Teacher References	Multi-Language Glossary
Lesson Overview Compilation	NGSS Information for Parents and Guardians
Standards and Goals	Print Materials (8.5" x 11")
3-D Statements	Print Materials (11" x 17")
Assessment System	
Embedded Formative Assessments	
Books in This Unit	
Apps in This Unit	
Flextensions in This Unit	

Offline Preparation

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

Offline Guide

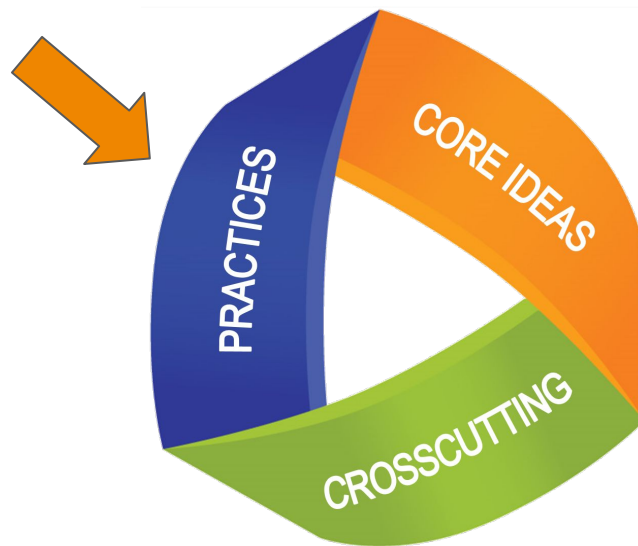
Standards & Goals

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.

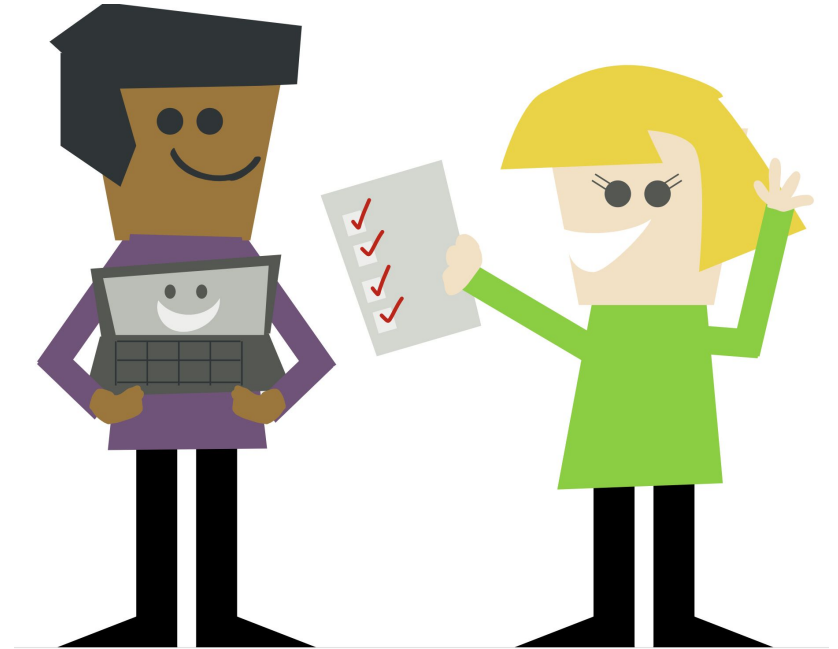


Whole group “presentations”

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?

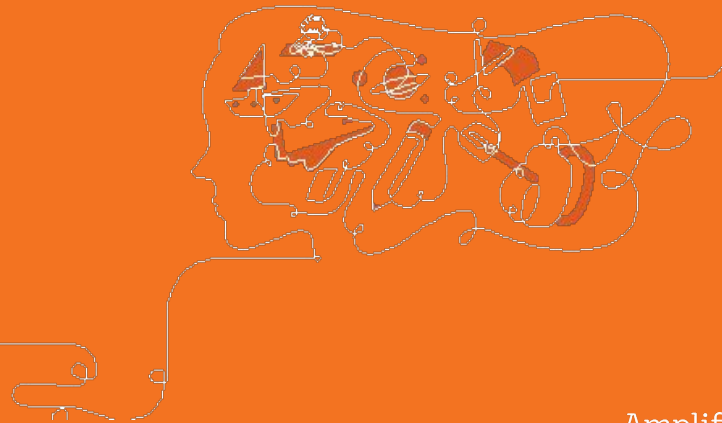


BREAK



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.

The image shows a digital interface with a menu of resources. The menu is organized into several sections: 'Planning for the Unit', 'Teacher References', 'Printable Resources', and 'Offline Preparation'. The 'Standards and Goals' item is highlighted with an orange border. The 'Printable Resources' section contains several PDF icons and titles, including '3-D Assessment Objectives', 'Coherence Flowcharts', 'Copymaster Compilation', 'Crosscutting Concept Tracker', 'Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultural Backgrounds', 'Flextension Compilation', 'Investigation Notebook', 'Multi-Language Glossary', 'NGSS Information for Parents and Guardians', 'Print Materials (8.5" x 11")', and 'Print Materials (11" x 17")'. The 'Offline Preparation' section includes a text box and a button labeled 'Offline Guide'.

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Unit Overview	3-D Assessment Objectives
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Embedded Formative Assessments	Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.
Books in This Unit	Offline Guide
Apps in This Unit	
Flextensions in This Unit	

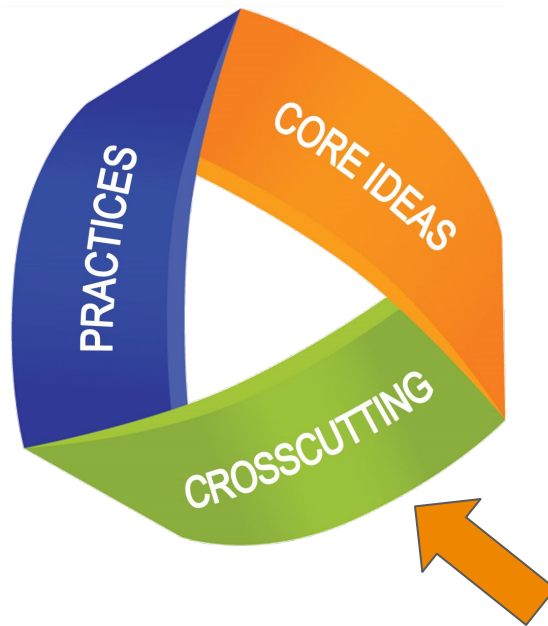
Standards & Goals

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.

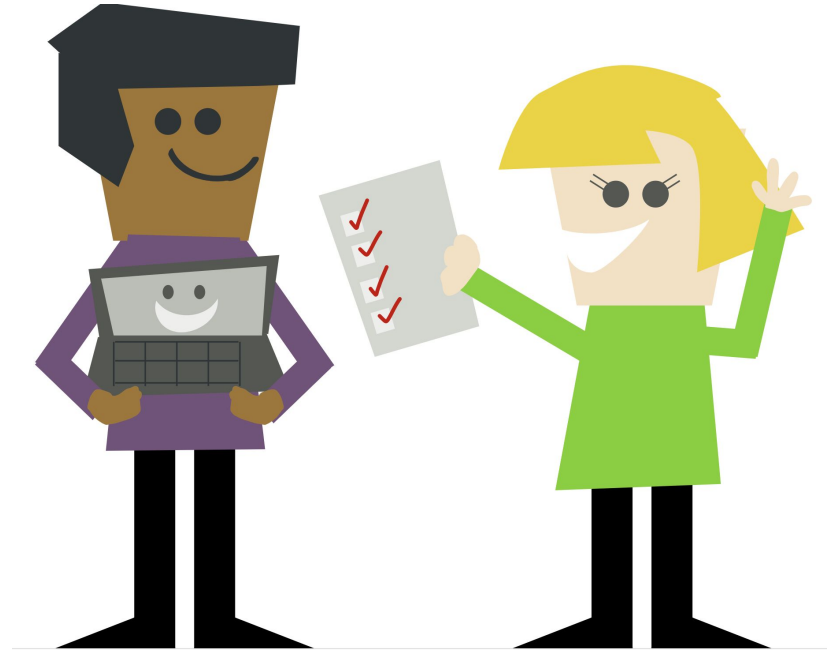


Whole group “presentations”

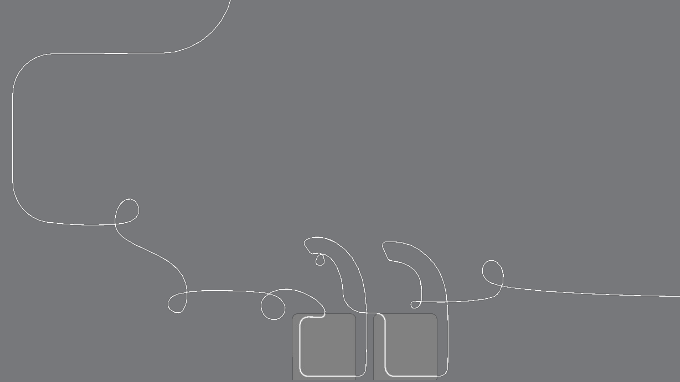
Cross-cutting concepts (CCC) - digging deeper

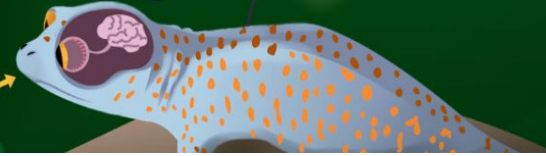
Each group will showcase their visual graphic organizer of their chosen lesson & highlight the main takeaways as it relates to student utilization of the CCC in the specific assigned modality.

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



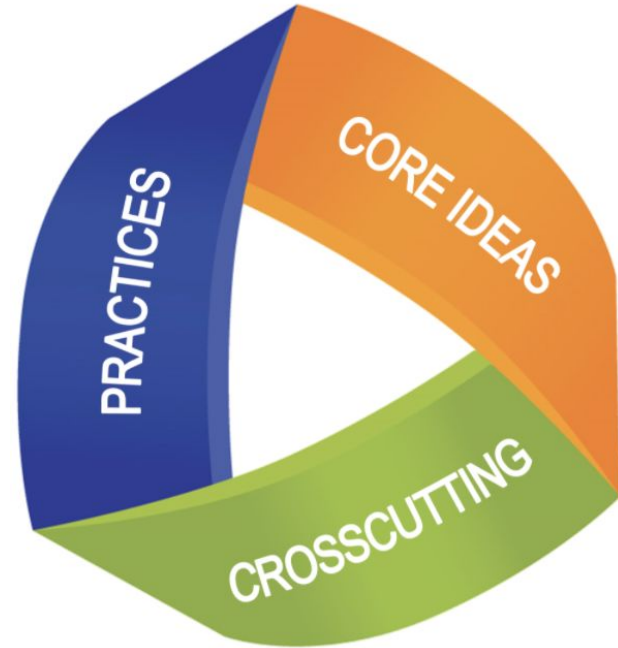
Questions?





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



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.

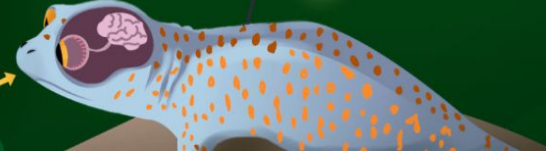
Now it's time to take a look at other lessons of your choice.

Feel free to use the lesson planning template provided.

Unit:	Lesson:	Date:
Unit Phenomenon:	Chapter Question:	Investigation Question:
<small>(Resources: Lesson Brief (Materials and Preparation, Unplugged, Digital Resources))</small>		
<small>(Resources: Lesson Brief (Overview, Standards))</small> Lesson Purpose:	What materials do you need to prepare?	What will you need to project?
How do the activities in this lesson fit together?	Will students need digital devices?	
<small>(Resources: Classroom Slides, Digital or Print Lesson Guide)</small> Use the prompts below to prepare to teach in the format that best fits your needs: 1) write responses directly into the template below, 2) download and annotate the Printable Lesson Guide, or 3) download Classroom Slides and add your responses in the Notes section.		
Lesson Activity	How does each activity support students in answering the Investigation Question (or applying the key concepts to the Chapter Question)?	What teacher moves will you need to add to support students in your classroom (partner or grouping structures, additional modeling or scaffolding, space considerations)?
Activity 1		
Activity 2		
Activity 5		
<small>(Resources: Lesson Brief (Lesson at a Glance), Lesson Overview Compilation, School Schedule)</small> How will teaching this lesson fit into your class schedule? Will you need to divide the lesson into activities over several days?		<small>(Resources: Lesson Brief (Lesson at a Glance), Lesson Overview Compilation, School Schedule)</small> If the lesson is divided into activities over several days, when will students have the opportunity to make sense of the evidence collected and apply it back to the Investigation Question and/or Chapter Question?
		Is there an opportunity to collect data about student understanding to inform instruction? How will you organize the data you collect?

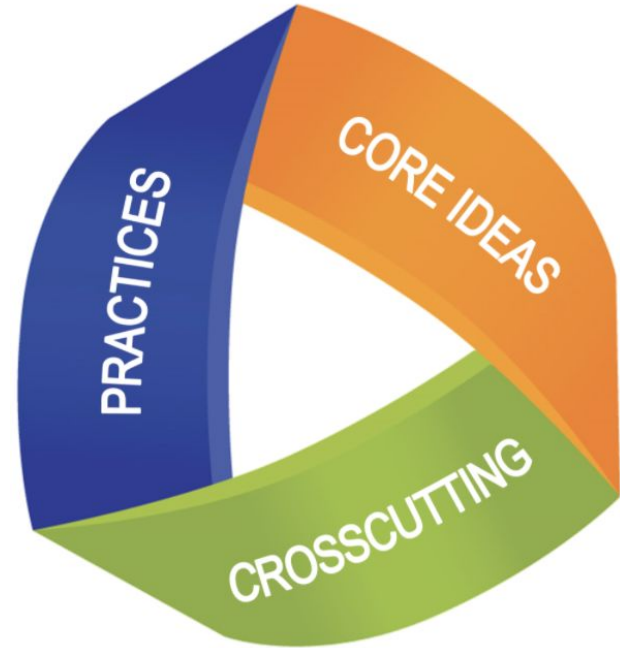
Questions?





Plan for the session

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



NGSS/NYSSLS: KWL Chart

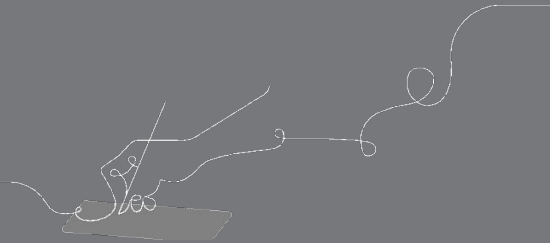
What I Know	What I Want to Know	What I Learned

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

e



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



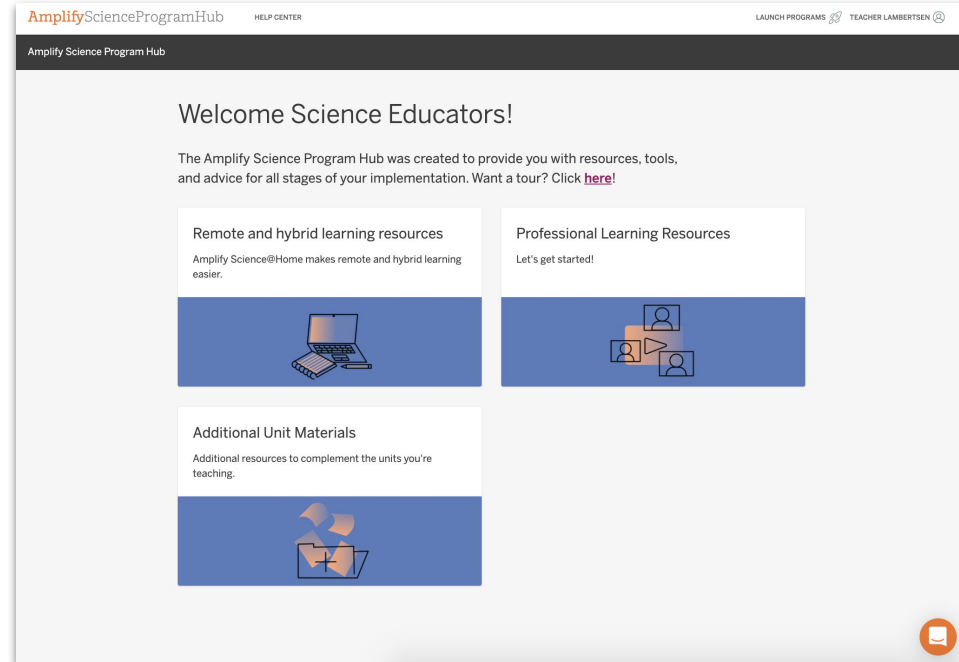
Amplify Chat



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.



The screenshot shows the Amplify Science Program Hub website. The header includes the logo "AmplifyScienceProgramHub", a "HELP CENTER" link, and user information for "LAUNCH PROGRAMS" and "TEACHER LAMBERTSEN". The main content area features a welcome message: "Welcome Science Educators! The Amplify Science Program Hub was created to provide you with resources, tools, and advice for all stages of your implementation. Want a tour? Click [here!](#)". Below this are three resource cards: "Remote and hybrid learning resources" (with a laptop icon), "Professional Learning Resources" (with a group of people icon), and "Additional Unit Materials" (with a folder icon). A small orange notification icon is visible in the bottom right corner.

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 Science! We have access to the many updates and upgrades in our curriculum until late August/early September when we will update our rosters from STARS.

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

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

Site Resources

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

Final questions?



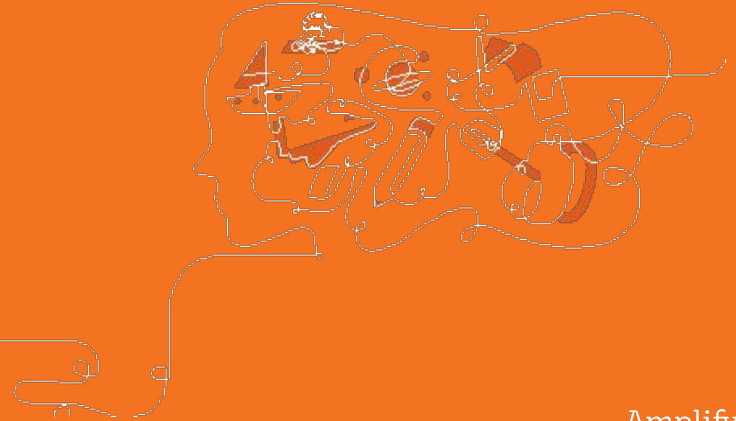
Please provide us feedback!



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!

