Amplify.

Welcome to Amplify Science!

This site contains supporting resources designed for the Los Angeles Unified School District Amplify Science adoption for grades TK–8.

All LAUSD schools have access to Amplify Science resources at this time.

Click here for Remote Learning Resources for Amplify Science

Click here to go back to the LAUSD homepage.

Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

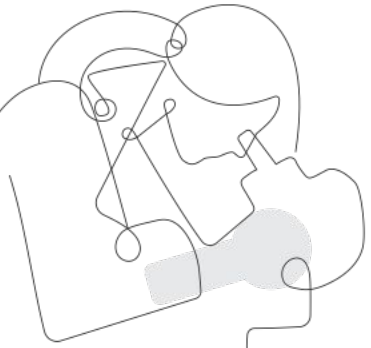
https://amplify.com/lausd-science/

Do Now: *Use the link in the chat to add something you love about teaching Amplify Science to the Jamboard.*

Amplify Science

Unit Internalization & Guided Planning

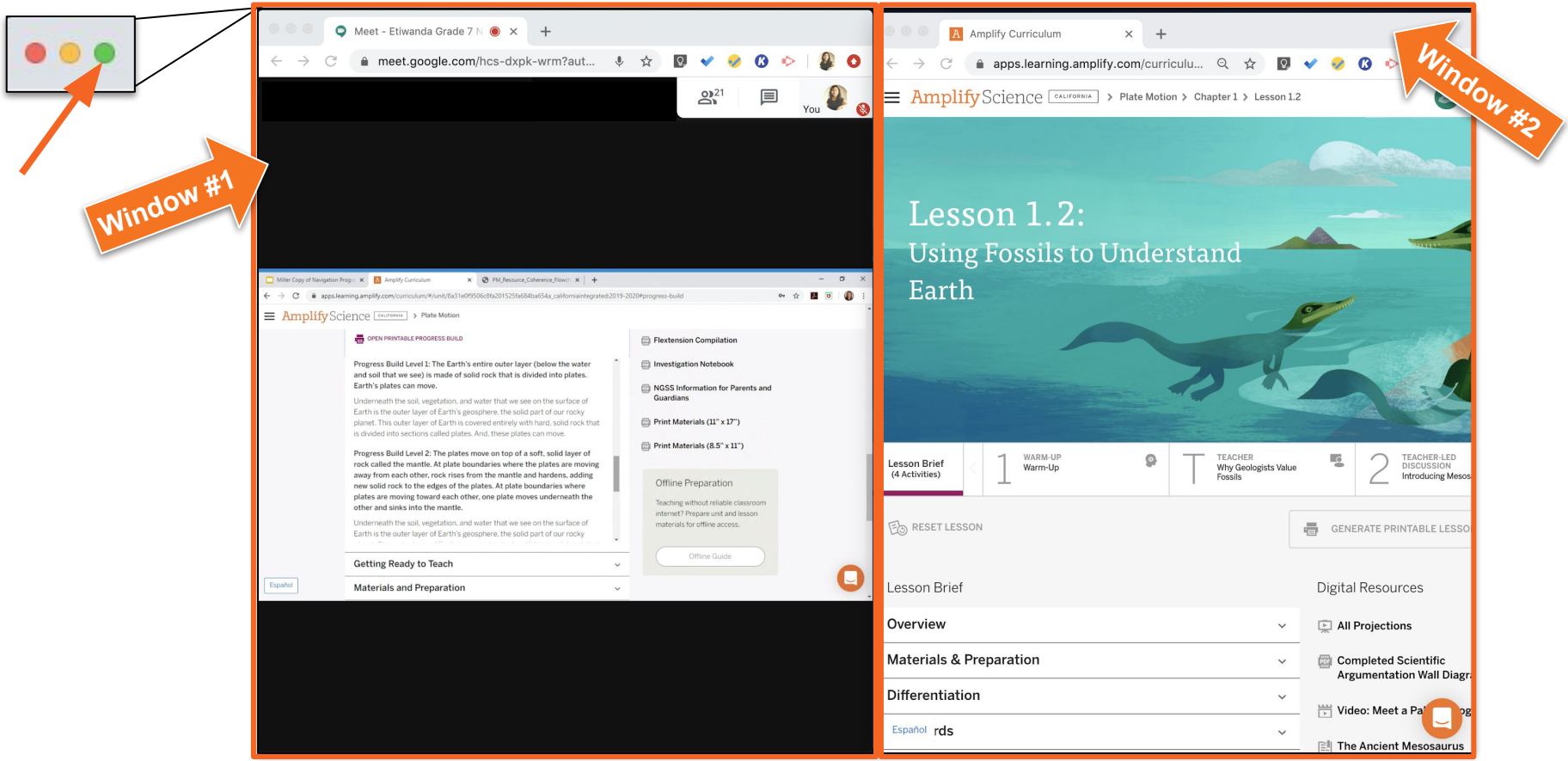
Deep-dive and strengthening workshop
Grade 7, Matter and Energy in Ecosystems



LAUSD
11/14/2020
Presented by Your Name

In a new tab, please log in to your Amplify Science account through Schoology.

Use two windows for today's webinar



Norms: Establishing a culture of learners

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

- *"Where's the chat box? What are these squares at the top of my screen?, where's the mute button?"*

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

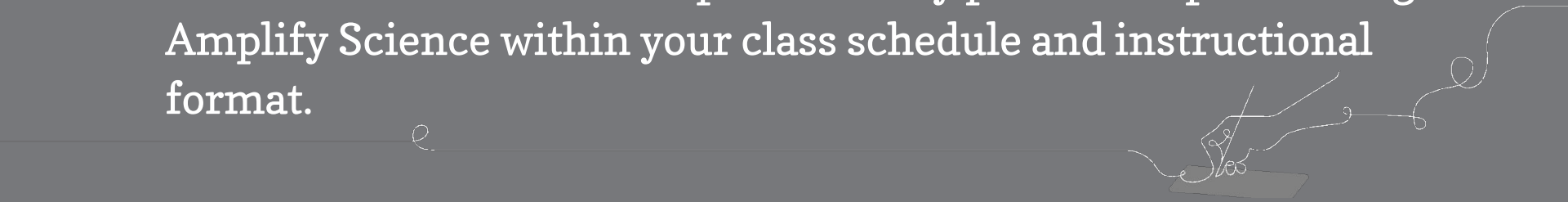
Make sure you have a note-catcher present

Engage at your comfort level - chat, ask questions, discuss, share!

Workshop goals

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

- Internalize your upcoming unit.
- Plan for collecting **evidence of student learning** in order to make instructional decisions to **support diverse learner needs**.
- Gather resources to develop a multi-day plan for implementing Amplify Science within your class schedule and instructional format.



Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- Unit Internalization
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- Reflection and closing

Plan for the day

- **Framing the day**
  - **Amplify Science Refresher**
  - **Instructional Materials**
- Unit Internalization
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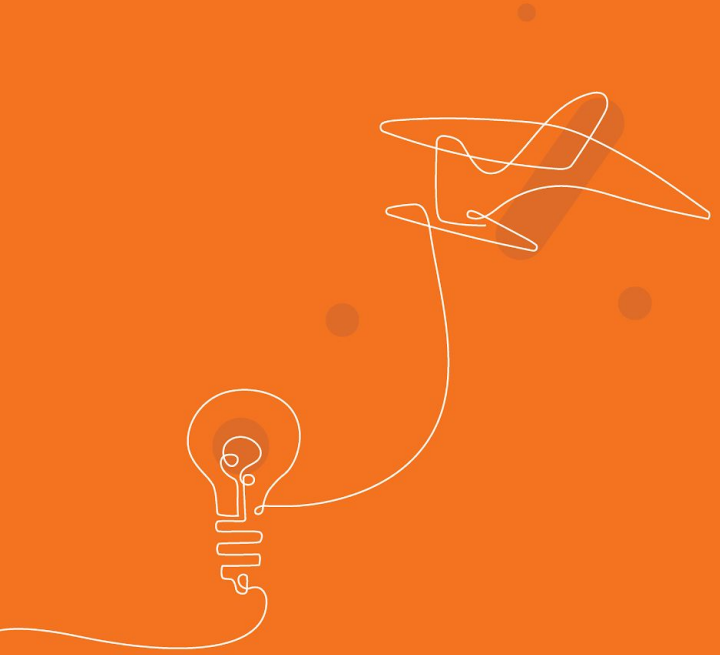
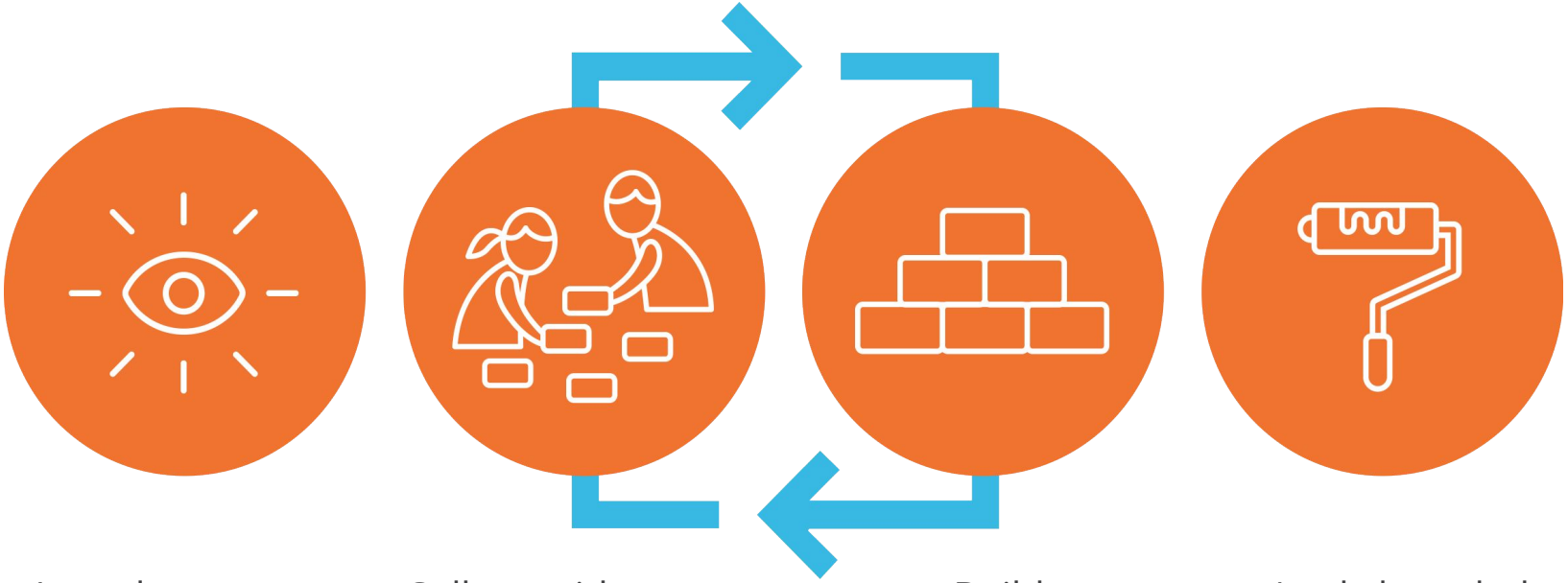


Amplify Science Refresher

Amplify.

Amplify Science Instructional Approach



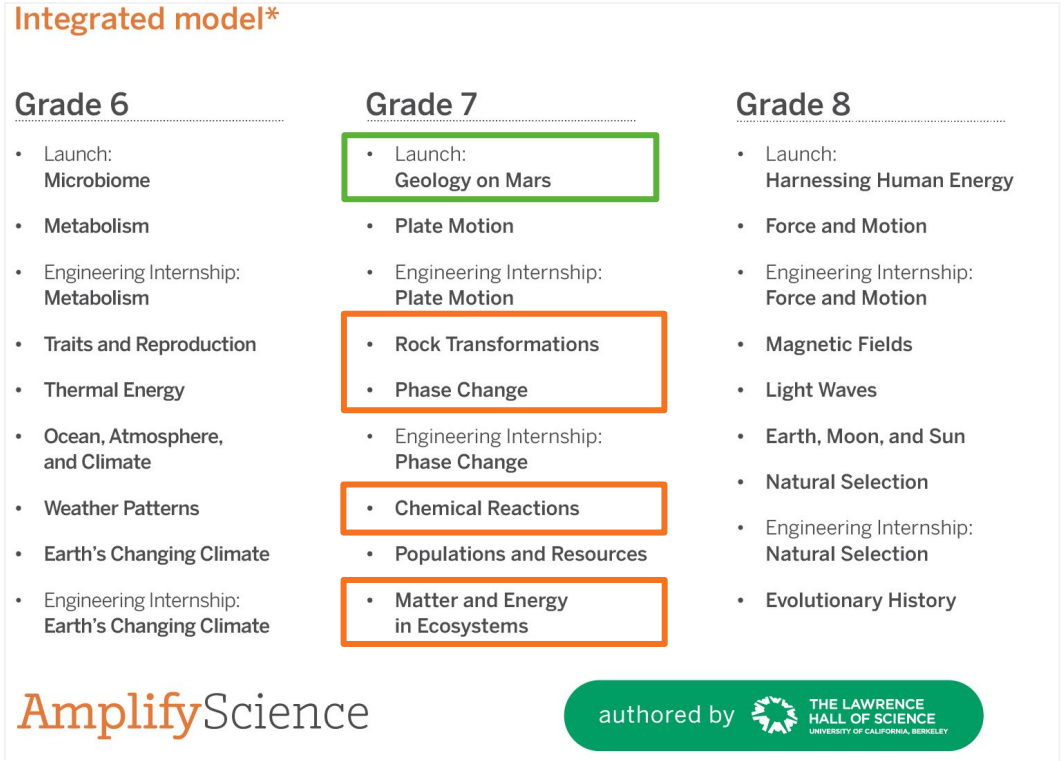
Introduce a phenomenon and a related problem

Collect evidence from multiple sources

Build increasingly complex explanations

Apply knowledge to solve a different problem

Middle school course curriculum structure



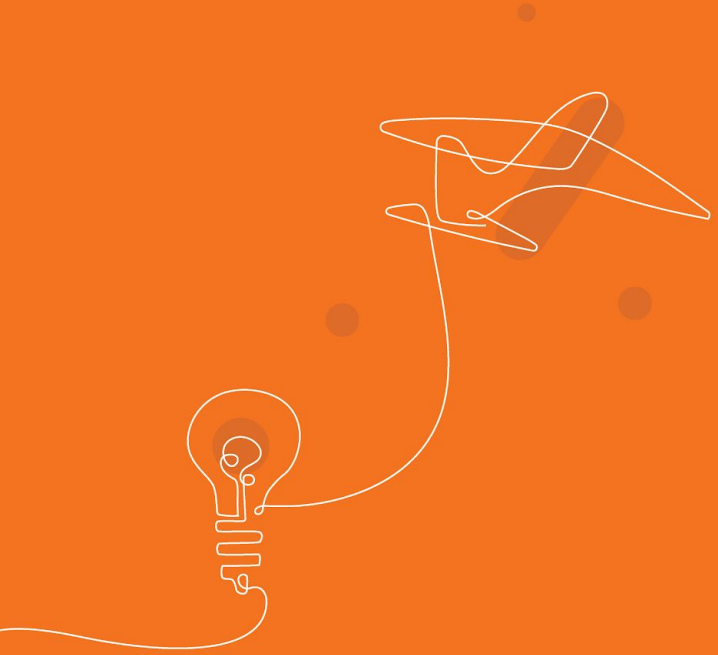
These are the prioritized units for 7th grade.

Launch units

- First unit
- 11 lessons

Core units

- Majority of units
- 19 lessons



Instructional Materials

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Standard Amplify Science Curriculum

Standard Amplify Science Curriculum

The Matter and Energy in Ecosystems unit has **19 lessons** across 4 chapters. Each lesson is written to be **45 minutes** long.

Chapter 1: Photosynthesis

6 Lessons

Chapter 2: Cellular Respiration in Ecosystems

5 Lessons

Chapter 3: Carbon Movement in Ecosystems

4 Lessons

Chapter 4: Science Seminar

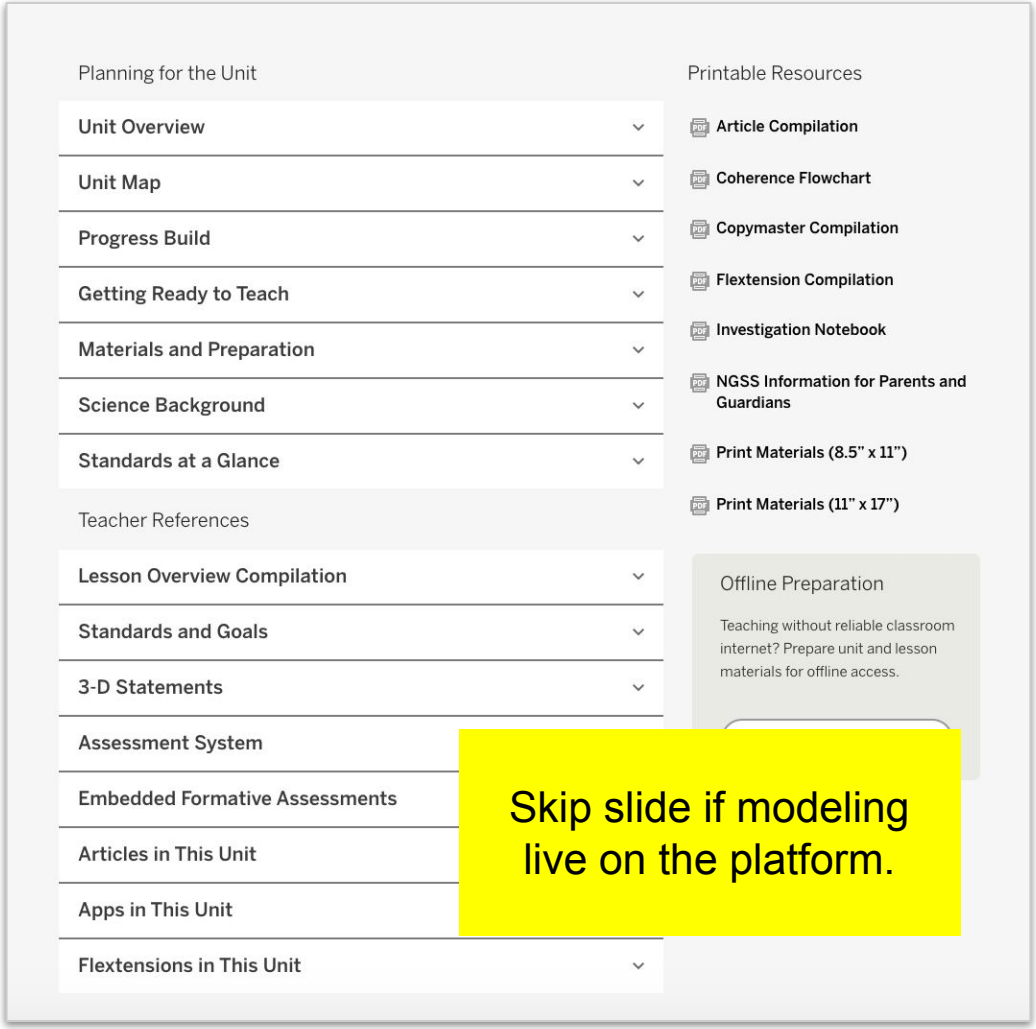
4 Lessons

Skip slide if modeling live on the platform.

Standard Amplify Science Curriculum

Below the chapters you will find the unit guide. This includes all of your key documents for planning for the unit.

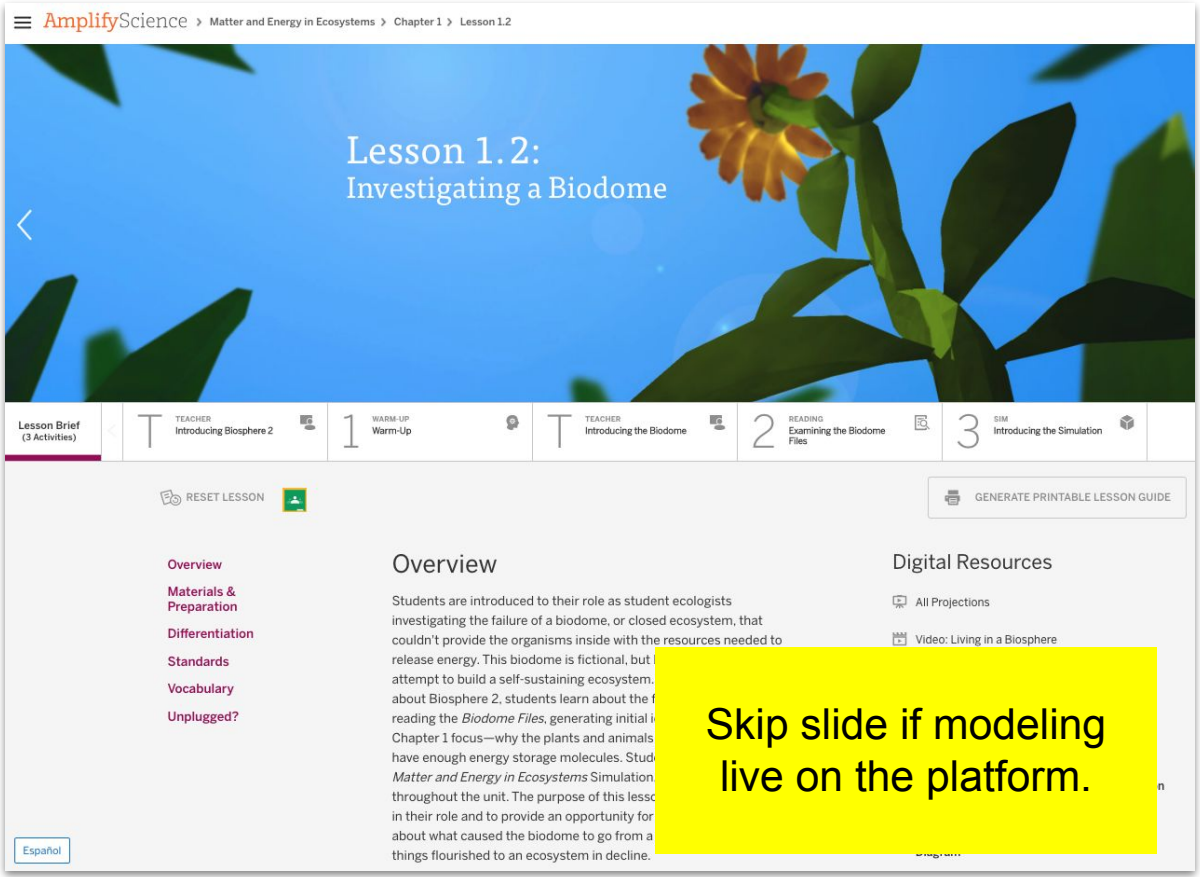
We will be using many of these in today's workshop.

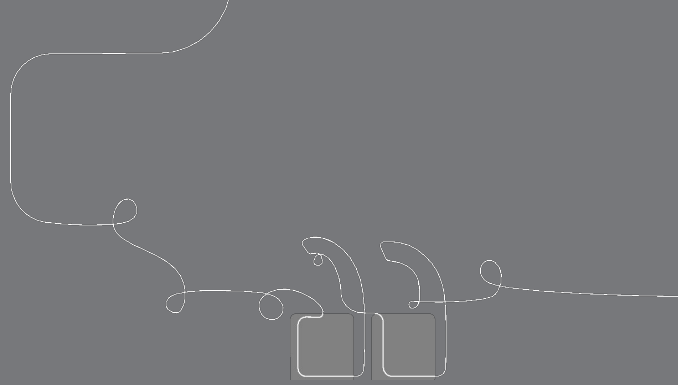


Standard Amplify Science Curriculum

When you click into a lesson, you will find key lesson level information.

We will be navigating to lessons during today's workshop in order to better plan for collecting evidence of student learning in order to plan to meet the needs of diverse learners.



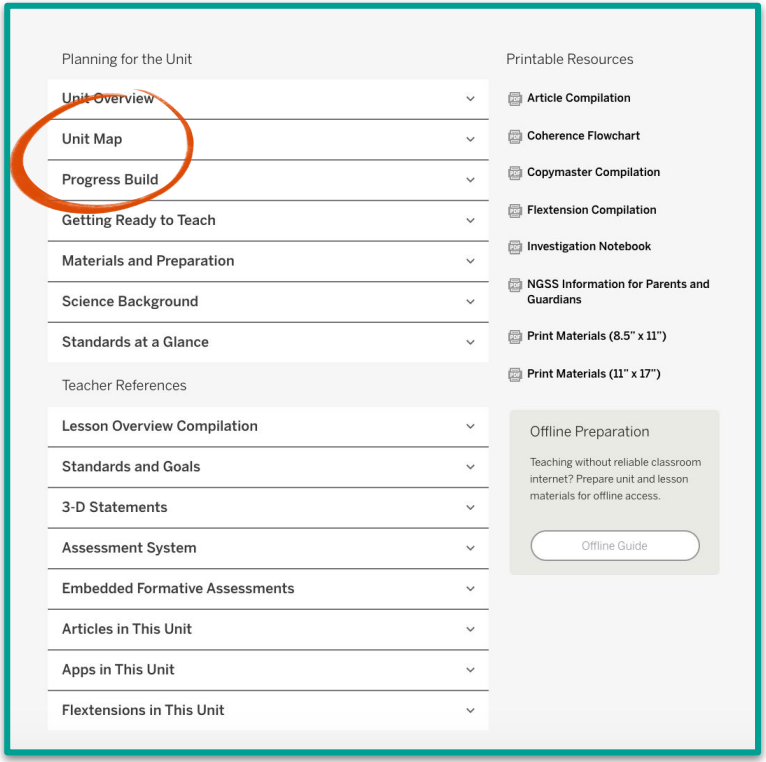


Questions?

Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- **Unit Internalization**
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- Reflection and closing

Unit Guide Resources



Unit Guide resources

Once a unit is selected, select **JUMP DOWN TO UNIT GUIDE** in order to access all unit-level resources in an Amplify Science unit.

Planning for the unit

Unit Overview	Describes what's in each unit, the rationale, and how students learn across chapters
Unit Map	Provides an overview of what students figure out in each chapter, and how they figure it out
Progress Build	Explains the learning progression of ideas students figure out in the unit
Getting Ready to Teach	Provides tips for effectively preparing to teach and teaching the unit in your classroom
Materials and Preparation	Lists materials included in the unit's kit, items to be provided by the teacher, and briefly outlines preparation requirements for each lesson
Science Background	Adult-level primer on the science content students figure out in the unit
Standards at a Glance	Lists Next Generation Science Standards (NGSS) (Performance Expectations, Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts), Common Core State Standards for English Language Arts, and Common Core State Standards for Mathematics

Teacher references

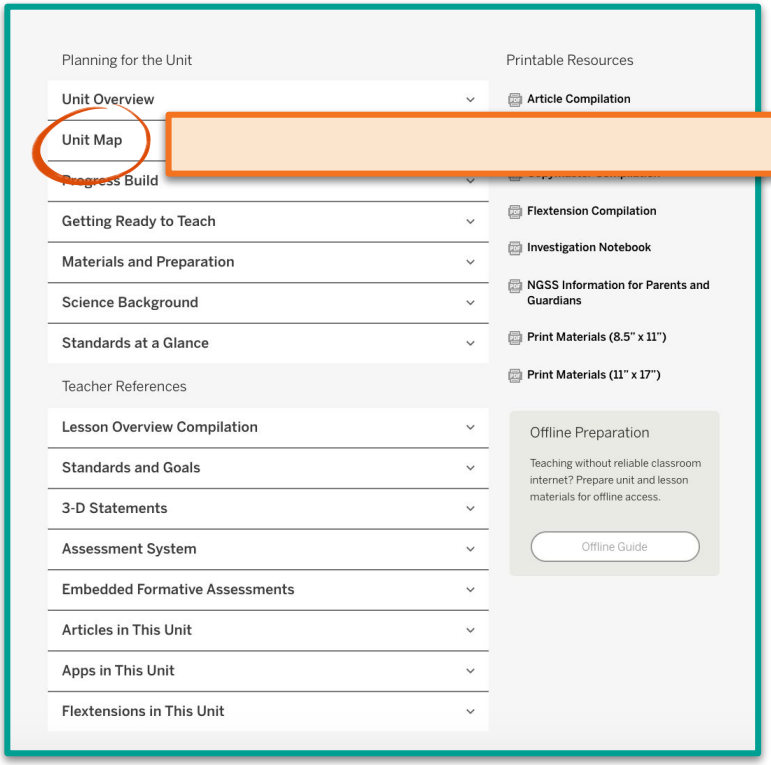
Lesson Overview Compilation	Lesson Overview of each lesson in the unit, including lesson summary, activity purposes, and timing
Standards and Goals	Lists NGSS (Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts) and CCSS (English Language Arts and Mathematics) in the unit, explains how the standards are reached
3-D Statements	Describes 3-D learning across the unit, chapters, and in individual lessons
Assessment System	Describes components of the Amplify Science Assessment System, identifies each 3-D assessment opportunity in the unit
Embedded Formative Assessments	Includes full text of formative assessments in the unit
Books in This Unit	Summarizes each unit text and explains how the text supports instruction
Apps in This Unit	Outlines functionality of digital tools and how students use them (in grades 2-5)

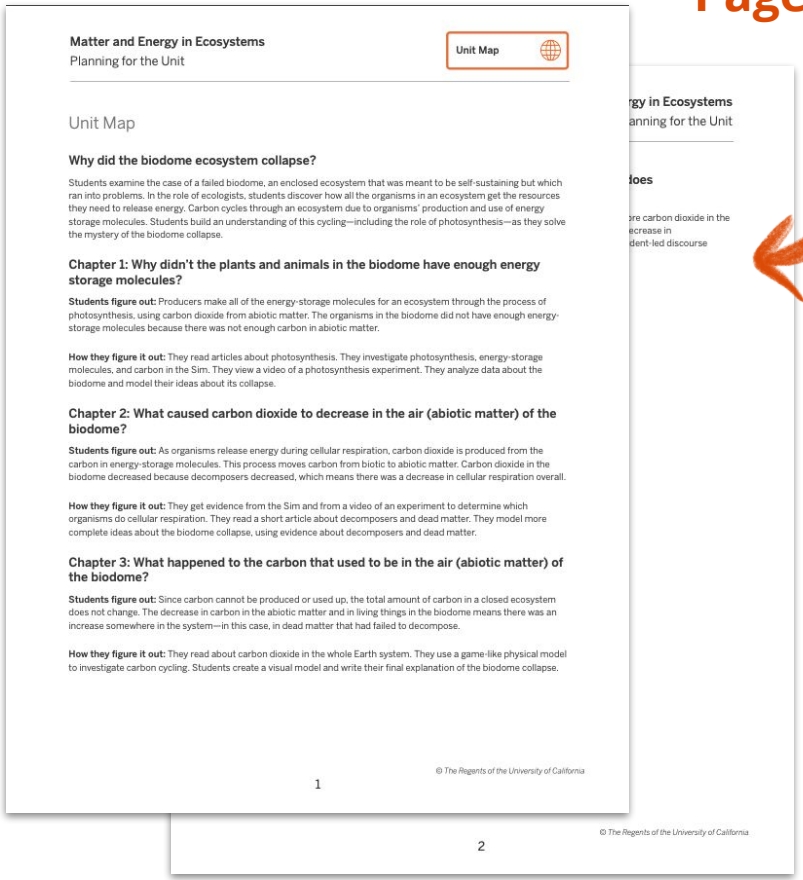
Printable resources

Copymaster Compilation	Compilation of all copymasters for the teacher to print and copy throughout the unit
Investigation Notebook	Digital version of the Investigation Notebook, for copying and projecting
Multi-Language Glossary	Glossary of unit vocabulary in multiple languages
Print Materials (8.5" x 11")	Digital compilation of printed cards (i.e. vocabulary cards, student card sets) provided in the kit
Print Materials (11" x 17")	Digital compilation of printed Unit Question, Chapter Questions, and Key Concepts provided in the kit

Unit Map

Pages 2-3





Matter and Energy in Ecosystems
Planning for the Unit

Unit Map

Unit Map

Why did the biodome ecosystem collapse?

Students examine the case of a failed biodome, an enclosed ecosystem that was meant to be self-sustaining but which ran into problems. In the role of ecologists, students discover how all the organisms in an ecosystem get the resources they need to release energy. Carbon cycles through an ecosystem due to organisms' production and use of energy storage molecules. Students build an understanding of this cycling—including the role of photosynthesis—as they solve the mystery of the biodome collapse.

Chapter 1: Why didn't the plants and animals in the biodome have enough energy storage molecules?

Students figure out: Producers make all of the energy-storage molecules for an ecosystem through the process of photosynthesis, using carbon dioxide from abiotic matter. The organisms in the biodome did not have enough energy-storage molecules because there was not enough carbon in abiotic matter.

How they figure it out: They read articles about photosynthesis. They investigate photosynthesis, energy-storage molecules, and carbon in the Sim. They view a video of a photosynthesis experiment. They analyze data about the biodome and model their ideas about its collapse.

Chapter 2: What caused carbon dioxide to decrease in the air (abiotic matter) of the biodome?

Students figure out: As organisms release energy during cellular respiration, carbon dioxide is produced from the carbon in energy-storage molecules. This process moves carbon from biotic to abiotic matter. Carbon dioxide in the biodome decreased because decomposers decreased, which means there was a decrease in cellular respiration overall.

How they figure it out: They get evidence from the Sim and from a video of an experiment to determine which organisms do cellular respiration. They read a short article about decomposers and dead matter. They model more complete ideas about the biodome collapse, using evidence about decomposers and dead matter.

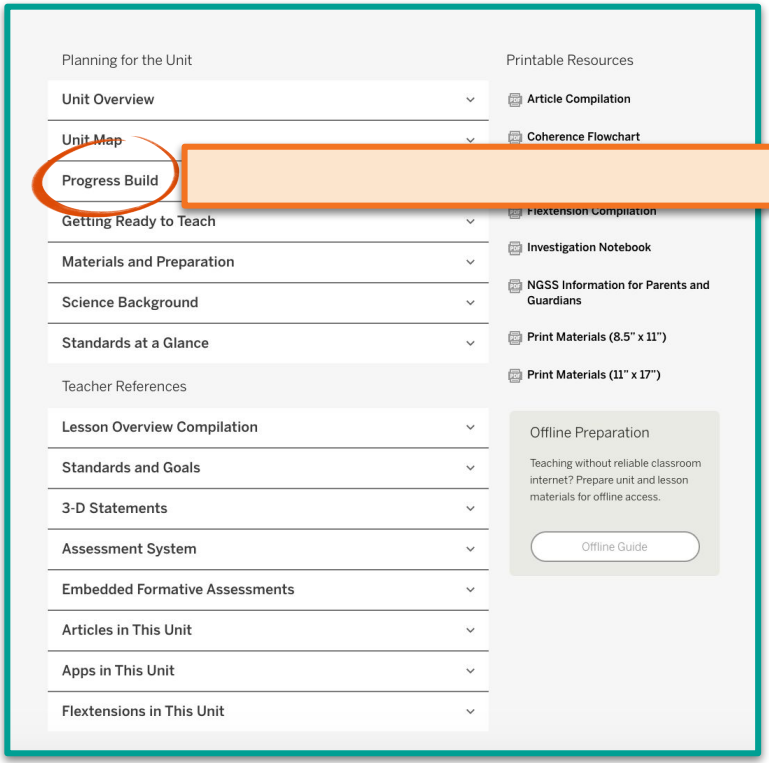
Chapter 3: What happened to the carbon that used to be in the air (abiotic matter) of the biodome?

Students figure out: Since carbon cannot be produced or used up, the total amount of carbon in a closed ecosystem does not change. The decrease in carbon in the abiotic matter and in living things in the biodome means there was an increase somewhere in the system—in this case, in dead matter that had failed to decompose.

How they figure it out: They read about carbon dioxide in the whole Earth system. They use a game-like physical model to investigate carbon cycling. Students create a visual model and write their final explanation of the biodome collapse.

Progress Build

Pages 4-5



Matter and Energy in Ecosystems
Planning for the Unit

Progress Build

Progress Build

Each Amplify Science Middle School unit is structured around a unit-specific learning progression, which we call the Progress Build. The unit's Progress Build describes the way students' explanatory understanding of the unit's focal phenomena is likely to develop and deepen over the course of a unit. It is an important tool in understanding the structure of a unit and in supporting students' learning: it organizes the sequence of instruction (generally, each level of the Progress Build corresponds to a chapter), defines the focus of assessments, and grounds the inferences about student learning progress that guide suggested instructional adjustments and differentiation. By aligning instruction and assessment to the Progress Build (and therefore to each other), evidence about how student understanding is developing may be used during the course of the unit to support students and modify instruction in an informed way.

The *Matter and Energy in Ecosystems* Progress Build consists of three levels of science understanding. To support a growth model for student learning progress, each level encompasses all of the ideas of prior levels and represents an explanatory account of unit phenomena, with the sophistication of that account increasing as the levels increase. At each level, students add new ideas and integrate them into a progressively deeper understanding about how matter and energy flow in an ecosystem. Since the Progress Build reflects an increasingly complex yet integrated explanation, we represent it by including the new ideas for each level in bold.

Prior knowledge (preconceptions). Middle School students will come into this unit with a general understanding that animals eat plants or other animals in order to survive; and that organisms can be generally grouped into plants, animals that eat plants, and animals that eat animals. Students who have first completed the *Populations and Resources* unit will know that organisms get energy by consuming energy storage molecules from their resource populations. This idea is also reviewed at the beginning of the *Matter and Energy in Ecosystems* unit. Students who have first completed the *Metabolism* unit will have learned that organisms release energy from energy storage molecules (such as glucose) through cellular respiration though they are unlikely to have explored how this affects the movement of matter in an ecosystem. While some students may be familiar with the idea that "matter cannot be created or destroyed," they are unlikely to have considered how matter is continually moving through a system. The *Matter and Energy in Ecosystems* Progress Build and unit structure are designed to build upon and refine this experience and prior knowledge.

Progress Build Level 1: Producers make energy storage molecules using the carbon from carbon dioxide.

Energy storage molecules are made by producers through photosynthesis. In photosynthesis, energy from the sun is used to make energy storage molecules using the carbon from carbon dioxide. This process moves carbon from abiotic matter to biotic matter. The amount of energy storage molecules available to supply the energy needs for an ecosystem depends on the amount of sunlight and carbon dioxide available to producers.

Progress Build Level 2: All organisms give off carbon dioxide when they release energy from energy storage molecules.

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Unit Internalization Work Time

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title:

What is the phenomenon students are investigating in your unit?

Unit Question:

Student role:

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

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

Page 6

Matter and Energy in Ecosystems
Planning for the Unit

Unit Map

Unit Map

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Unit Map

Energy in Ecosystems
Planning for the Unit

Why does

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Matter and Energy in Ecosystems
Planning for the Unit

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1

2

Pages 2-5

Unit Guide Document

Unit Map

Lesson Overview Compilation

Progress Buld

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Matter and Energy in Ecosystems

What is the phenomenon students are investigating in your unit?

There is a failed biodome, or closed ecosystem, that couldn't provide the organisms inside with the resources needed to release energy.

Unit Question:

How do all the organisms in an ecosystem get the resources they need to release energy?

Student role:

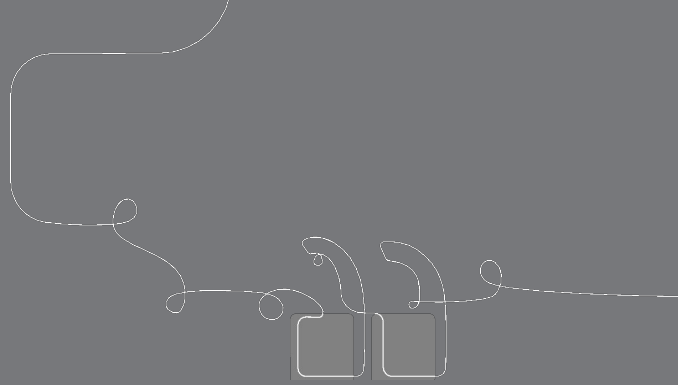
Student ecologists

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

Students discover that a decrease in the amount of carbon in abiotic matter inherently means an increase in the amount of carbon in another part of the ecosystem. In the case of the biodome, as the amount of carbon in the air decreased, the amount of carbon in dead matter increased due to the absence of decomposers.

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

Producers make energy storage molecules using the carbon from carbon dioxide. Through the process of cellular respiration, producers, consumers, and decomposers release energy from energy storage molecules and make carbon dioxide using the carbon in energy storage molecules. When organisms give off carbon dioxide, this moves carbon from biotic matter to abiotic matter, which makes carbon available to producers of photosynthesis. A change in the distribution of carbon in the ecosystem indicates that the movement of carbon (via photosynthesis or cellular respiration) has changed in the ecosystem.



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- Reflection and closing

Unit Map

Why did the biodome ecosystem collapse?

Students examine the case of a failed biodome, an enclosed ecosystem that was meant to be self-sustaining but which ran into problems. In the role of ecologists, students discover how all the organisms in an ecosystem get the resources they need to release energy. Carbon cycles through an ecosystem due to organisms' production and use of energy storage molecules. Students build an understanding of this cycling—including the role of photosynthesis—as they solve the mystery of the biodome collapse.

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How they figure it out: They read articles about photosynthesis. They investigate photosynthesis, energy-storage molecules, and carbon in the Sim. They view a video of a photosynthesis experiment. They analyze data about the biodome and model their ideas about its collapse.

Chapter 1: Photosynthesis

JUMP DOWN TO CHAPTER OVERVIEW

Lesson 1.1:
Pre-Unit Assessment

SETTINGS

Lesson 1.2:
Investigating a Biodome

Lesson 1.3:
Sunlight and Life

Lesson 1.4:
How Energy Storage Molecules Are Made

Lesson 1.5:
Photosynthesis in Ecosystems

Lesson 1.6:
Examining Data from the Biodome

Overview

Students are introduced to their role as student ecologists investigating the failure of a biodome, or closed ecosystem, that couldn't provide the organisms inside with the resources needed to release energy. This biodome is fictional, but Biosphere 2 was a real attempt to build a self-sustaining ecosystem. After watching a video about Biosphere 2, students learn about the fictional biodome by reading the *Biodome Files*, generating initial ideas about their Chapter 1 focus—why the plants and animals in the biodome didn't have enough energy storage molecules. Students then explore the *Matter and Energy in Ecosystems* Simulation, which they will use throughout the unit. The purpose of this lesson is to engage students in their role and to provide an opportunity for them to make claims about what caused the biodome to go from a place where living things flourished to an ecosystem in decline.

Anchor Phenomenon: The biodome ecosystem has collapsed.

Students learn:

- A system is a set of interacting parts, forming a complex whole.
- Ecosystems are made up of living and nonliving things that interact in a particular area.
- The organisms in an ecosystem cannot grow or reproduce if they do not have enough energy storage molecules.

Lesson at a Glance

(Teacher Only) Introducing Biosphere 2
A video introduces students to Biosphere 2, an actual biodome experiment and realistic backdrop for the mission that students will undertake in this unit.

1: Warm-Up (5 min.)
Students respond to the video about Biosphere 2, providing an opportunity for students to take an interest in this unit's content.

(Teacher Only) Introducing the Biodome (5 min.)
Students are introduced to their role as student ecologists who are determining why the organisms in the biodome no longer had the resources they needed to release energy.

2: Examining the Biodome Files (20 min.)
Students read a chapter of their choice from the *Biodome Files* in order to help them brainstorm some initial ideas about why the organisms in the biodome did not have enough energy storage molecules.

3: Introducing the Simulation (15 min.)
An introduction to the *Matter and Energy in Ecosystems* Simulation allows students to become familiar with the tool they will be using to collect evidence throughout the unit.

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A video introduces students to Biosphere 2, an actual biodome experiment and realistic backdrop for the mission that students will undertake in this unit.

1: Warm-Up (5 min.)
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(Teacher Only) Introducing the Biodome (5 min.)
Students are introduced to their role as student ecologists who are determining why the organisms in the biodome no longer had the resources they needed to release energy.

2: Examining the Biodome Files (20 min.)
Students read a chapter of their choice from the *Biodome Files* in order to help them brainstorm some initial ideas about why the organisms in the biodome did not have enough energy storage molecules.

3: Introducing the Simulation (15 min.)
An introduction to the *Matter and Energy in Ecosystems* Simulation allows students to become familiar with the tool they will be using to collect evidence throughout the unit.

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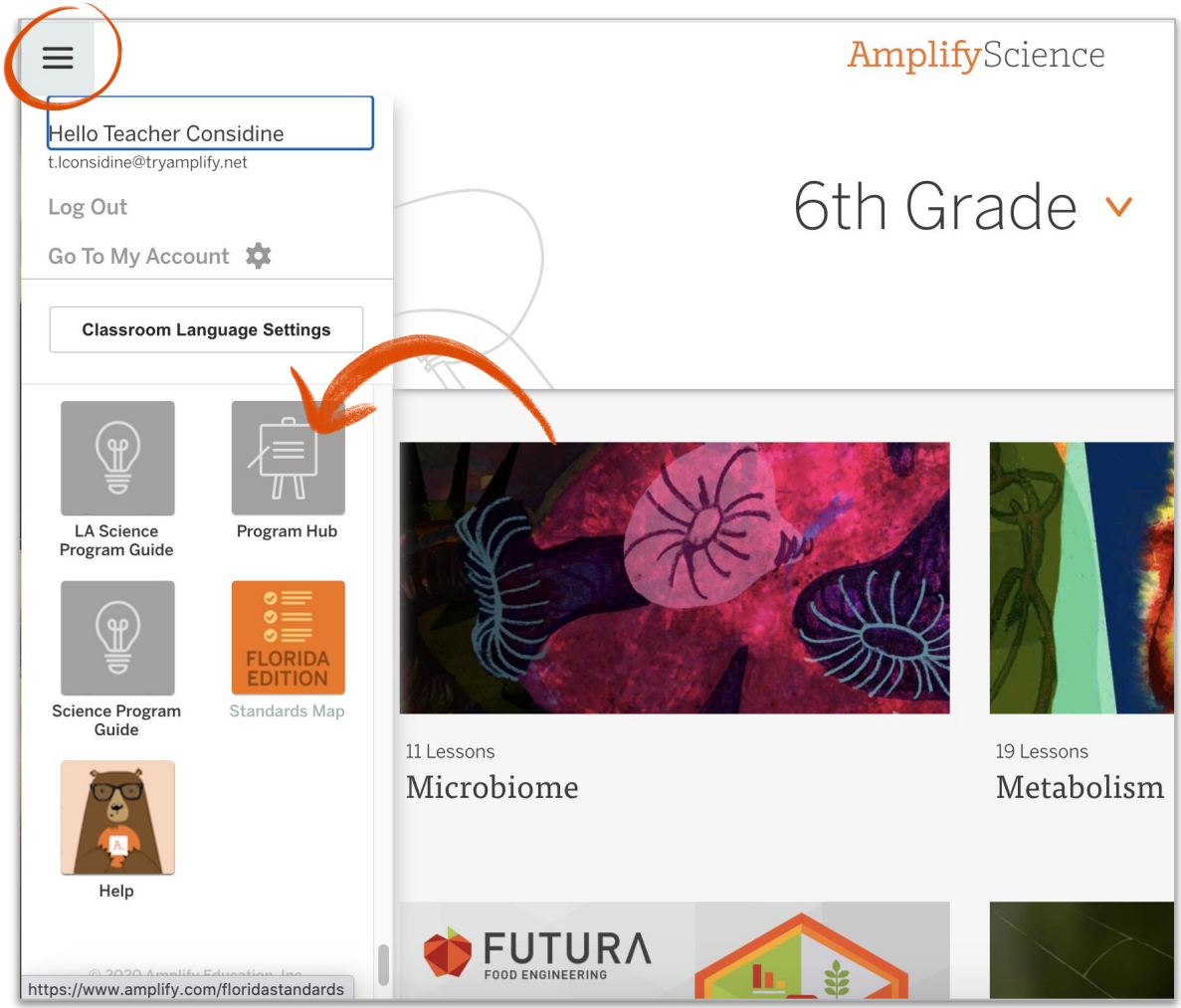
Modifications needed for remote learning:

Classroom wall

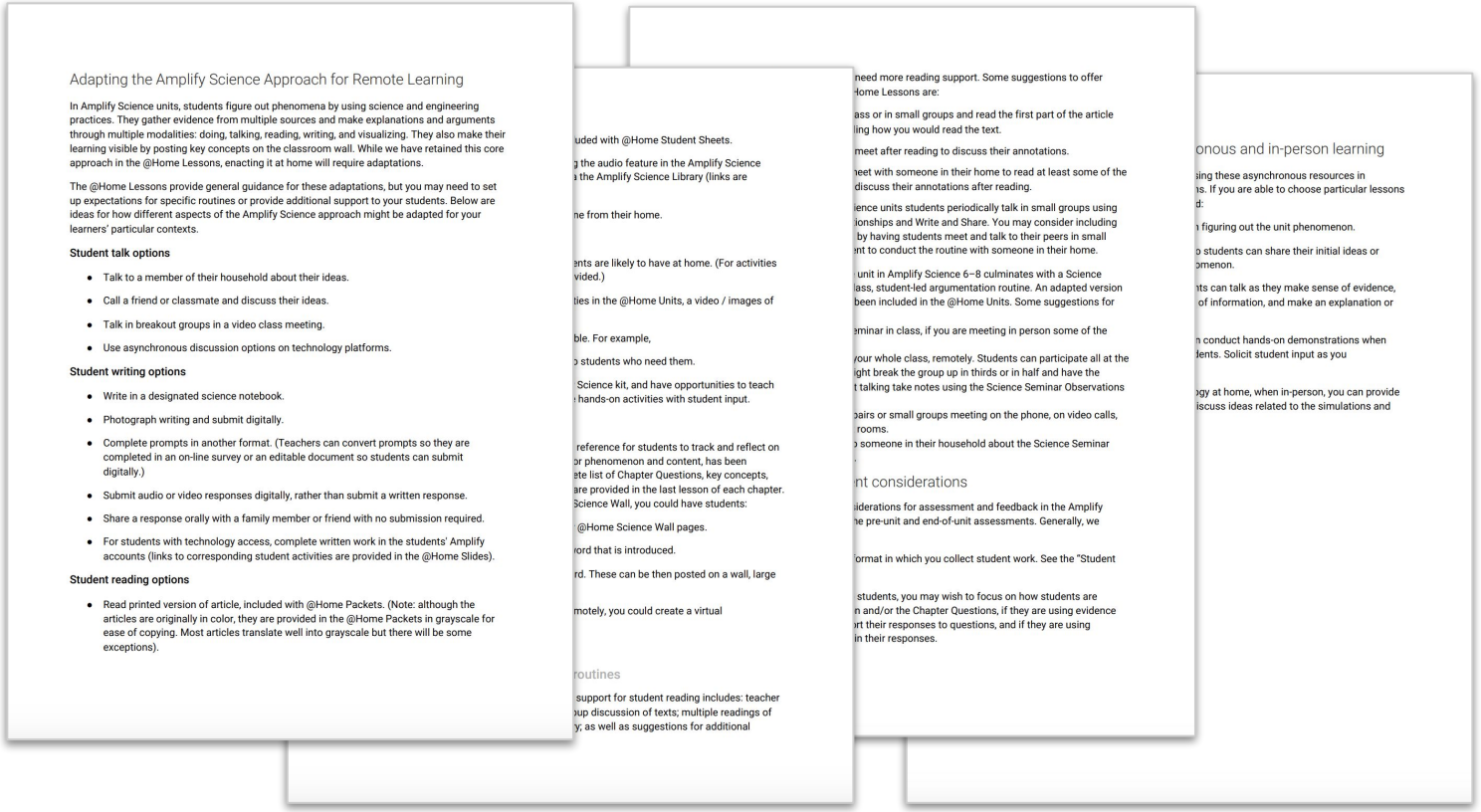
Amplify Science @Home Curriculum

The Teacher Overview document gives suggestions for modifying activities for remote learning.



Pages 15-18

Adapting the Amplify Approach for Remote Learning
(Excerpt from the @Home Teacher Overview)



Adapting the Amplify Science Approach for Remote Learning

In Amplify Science units, students figure out phenomena by using science and engineering practices. They gather evidence from multiple sources and make explanations and arguments through multiple modalities: doing, talking, reading, writing, and visualizing. They also make their learning visible by posting key concepts on the classroom wall. While we have retained this core approach in the @Home Lessons, enacting it at home will require adaptations.

The @Home Lessons provide general guidance for these adaptations, but you may need to set up expectations for specific routines or provide additional support to your students. Below are ideas for how different aspects of the Amplify Science approach might be adapted for your learners' particular contexts.

Student talk options

- Talk to a member of their household about their ideas.
- Call a friend or classmate and discuss their ideas.
- Talk in breakout groups in a video class meeting.
- Use asynchronous discussion options on technology platforms.

Student writing options

- Write in a designated science notebook.
- Photograph writing and submit digitally.
- Complete prompts in another format. (Teachers can convert prompts so they are completed in an on-line survey or an editable document so students can submit digitally.)
- Submit audio or video responses digitally, rather than submit a written response.
- Share a response orally with a family member or friend with no submission required.
- For students with technology access, complete written work in the students' Amplify accounts (links to corresponding student activities are provided in the @Home Slides).

Student reading options

- Read printed version of article, included with @Home Packets. (Note: although the articles are originally in color, they are provided in the @Home Packets in grayscale for ease of copying. Most articles translate well into grayscale but there will be some exceptions).

Page 16

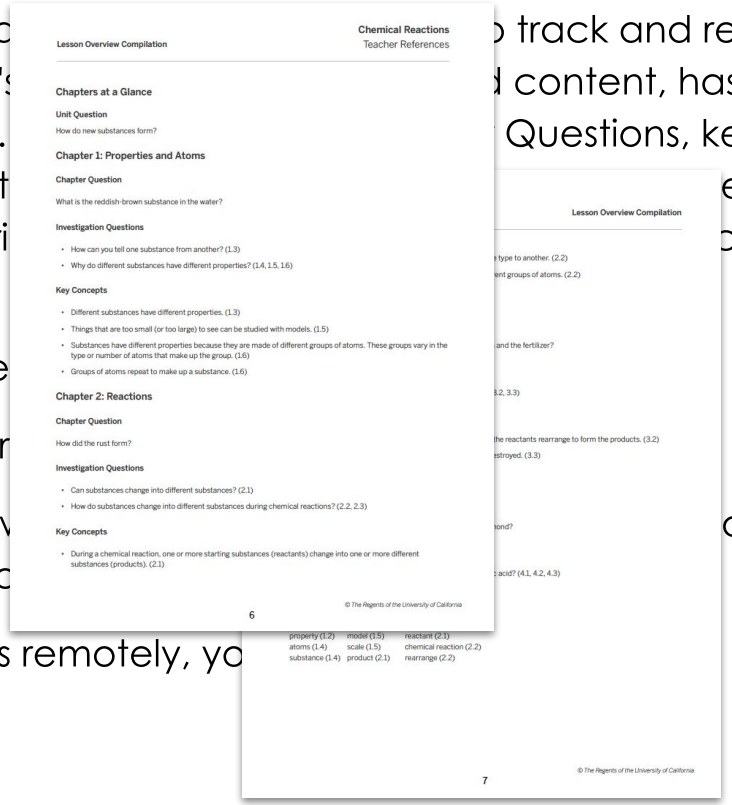
Pages 13-14

Classroom wall options

The classroom wall, which provides an importa[nt] to track and reflect on their developing understanding of t[he] unit's [] content, has been reimagined as an @Home Science Wall. [] Questions, key concepts, and vocabulary that have been int[roduced] esson of each chapter. To enhance students' experi[ences] could have students:

- Draw a picture or write their ideas on the [wall]
- Highlight each question, key concept, or [vocabulary] on the wall
- Cut out each question, key concept, or [vocabulary] all, large sheet of paper, or refrigerator at ho[me]

Additionally, if you are meeting with your class remotely, yo[u] @Home Science Wall.



Lesson Overview Compilation — Chemical Reactions, Teacher References

Chapters at a Glance

Unit Question

How do new substances form?

Chapter 1: Properties and Atoms

Chapter Question

What is the reddish-brown substance in the water?

Investigation Questions

- How can you tell one substance from another? (1.3)
- Why do different substances have different properties? (1.4, 1.5, 1.6)

Key Concepts

- Different substances have different properties. (1.3)
- Things that are too small (or too large) to see can be studied with models. (1.5)
- Substances have different properties because they are made of different groups of atoms. These groups vary in the type or number of atoms that make up the group. (1.6)
- Groups of atoms repeat to make up a substance. (1.6)

Chapter 2: Reactions

Chapter Question

How did the rust form?

Investigation Questions

- Can substances change into different substances? (2.1)
- How do substances change into different substances during chemical reactions? (2.2, 2.3)

Key Concepts

- During a chemical reaction, one or more starting substances (reactants) change into one or more different substances (products). (2.1)

Lesson Overview Compilation

property (1.2) model (1.5) reactant (2.1)
atoms (1.4) scale (1.5) chemical reaction (2.2)
substance (1.4) product (2.1) rearrange (2.2)

Lesson at a Glance

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Modifications needed for remote learning:

Classroom wall

Reading

Student talk options

Page 15

- Talk to a member of their household about their ideas.
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- Use asynchronous discussion options on technology platforms.

Page 17

- **Talk routines.** In Amplify Science units students periodically talk in small groups using routines such as Word Relationships and Write and Share. You may consider including and adapting these routines by having students meet and talk to their peers in small groups or asking each student to conduct the routine with someone in their home.

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.

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Lesson at a Glance

1: Warm-Up (5 min.)
This activity provides a connection between students' everyday lives and the question they will be investigating in the unit.

(Teacher Only) Video: Using Chemistry to Keep Water Safe (5 min.)
A video establishes an authentic backdrop for the unit investigation by introducing students to a scientist who uses chemistry to make water safe to use.

2: Investigating a Mysterious Substance (15 min.)
Students are introduced to the problem they will be solving and are given an opportunity to share their initial ideas about it.

3: Observing Substances (20 min.)
Students make observations of the three substances mentioned in the claims they are considering. They are introduced to the concept of properties.

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Multi-day planning, including planning for differentiation and evidence of student work

Day 1: Lesson 1.2

Minutes for science: 15 min

Instructional format:
- [X] Asynchronous
- [ ] Synchronous

Lesson or part of lesson:

Lesson 1.2 Video and Warm-up

Mode of instruction:
- [X] Preview
- [ ] Review
- [ ] Teach full lesson live
- [ ] Teach using synchronous suggestions
- [X] Students work independently using:
  - [ ] @Home Packet
  - [ ] @Home Slides and @Home Student Sheets
  - [ ] @Home Videos

Students will...	Teacher will...
complete the warm-up activity on the Amplify Science site and submit. students will watch the unit introduction video, and jot down questions or comments	create an assignment in Schoology asking students to view the video, compete the warm-up activity, and list questions/comments.. The teacher will review answer to the warm-up.

Minutes for science: _____

Instructional format:
- [ ] Asynchronous
- [X] Synchronous

Lesson or part of lesson:

Mode of instruction:
- ❑ Preview
- ❑ Review
- ❑ Teach full lesson live
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Minutes for science: 15 min.

Instructional format:
- [X] Asynchronous
- [ ] Synchronous

Lesson or part of lesson:
Lesson 1.2 Warm-up and Video

Mode of instruction:
- [X] Preview
- [ ] Review
- [ ] Teach full lesson live
- [ ] Teach using synchronous suggestions
- [X] Students work independently using:
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Students will...	Teacher will...
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Minutes for science: 30 min

Instructional format:
- [ ] Asynchronous
- [X] Synchronous

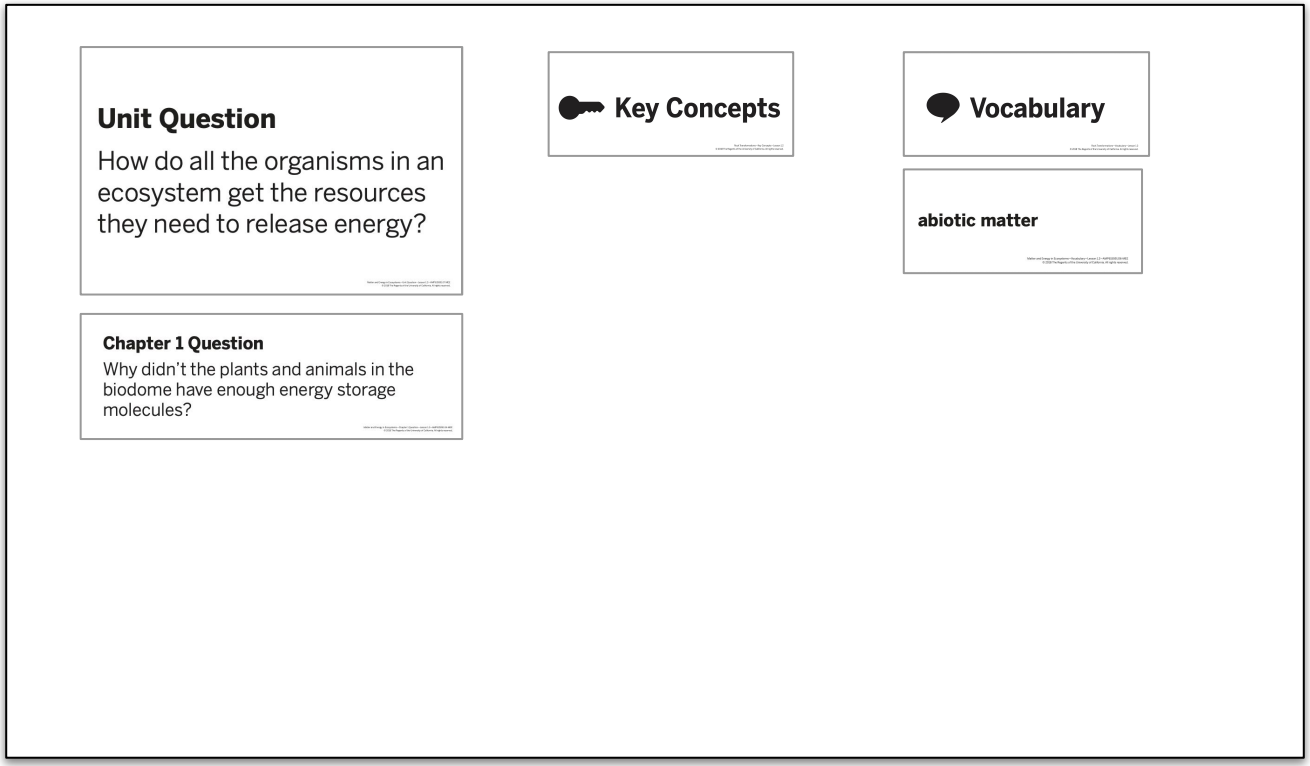
Lesson or part of lesson:
Lesson 1.2 Activities T and 2

Mode of instruction:
- [ ] Preview
- [ ] Review
- [ ] Teach full lesson live
- [X] Teach using synchronous suggestions
- [ ] Students work independently using:
  - [ ] @Home Packet
  - [ ] @Home Slides and @Home Student Sheets
  - [ ] @Home Videos

Students will...	Teacher will...
Activity T: be introduced to the biome and mission Activity 3: Read *Biodome Files and make initial claims about the Chapter Question.* Discuss ideas with a partner.	Activity T: introduce the problem using the platform (including projections). Activity 3: The teacher will have students read the Biodiome Files in the digital format.. Then, use breakout groups to facilitate the partner discussion.

Sample Teacher Created Slides

Classroom Wall



Look at the *Students will* columns. What are students working in the lesson(s) that you could collect, review, or provide feedback on?
See Some Types of Written Work in Amplify Science to the right for guidance.

If there isn't a work product listed above, do you want to add one? Make notes below.

Asynchronous: students complete the warm-up activity and jot down their initial ideas

Synchronous: students submit initial claims

Some Types of Written Work in Amplify Science

- Daily written reflections
- Homework tasks
- Investigation notebook pages
- Written explanations (typically at the end of Chapter)
- Diagrams
- Recording pages for Sim uses, investigations, etc

How will students submit this work product to you?
See the Completing and Submitting Written Work tables to the right for guidance on how students can complete and submit work.

Asynchronous: students will submit Warm Up work digitally on the Amplify Science website

Synchronous: during activity 2, students will submit their initial claims on the Amplify Science site OR by taking a picture of their notes and emailing them.

Completing Written Work	Submitting Written Work
• Plain paper and pencil (videos include prompts for setup) • (6-8) Student platform • Investigation Notebook • Record video or audio file describing work/answering prompt • Teacher-created digital format (Google Classroom, etc)	• Take a picture with a smartphone and email or text to teacher • Through teacher-created digital format • During in-school time (hybrid model) or lunch/materials pick-up times • (6-8) Hand-in button on student platform

How will you differentiate this lesson for diverse learners? (Navigate to the lesson level on the standard Amplify Science platform and click on differentiation in the left menu.)

English-Chinese Glossary

freedom of movement: the way molecules in a substance move around relative to each other
热运动: 物质中的分子相对于彼此的运动方式

kinetic energy: the energy that an object has because it is moving
动能: 物体由于运动而具备的能量

molecular attraction: a pull between two molecules that is always the same for a substance
分子引力: 物质中两个分子之间始终恒定不变的吸引力

molecule: a group of atoms joined together in a particular way
分子: 物质中具有该物质属性的最小微粒

phase: a noticeably different form or state of the same substance
相: 同种物质的明显不同形式或状态

refute: to provide evidence that goes against a claim
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scale: the relative size of things
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2 Phase Change—Multi-Language Glossary

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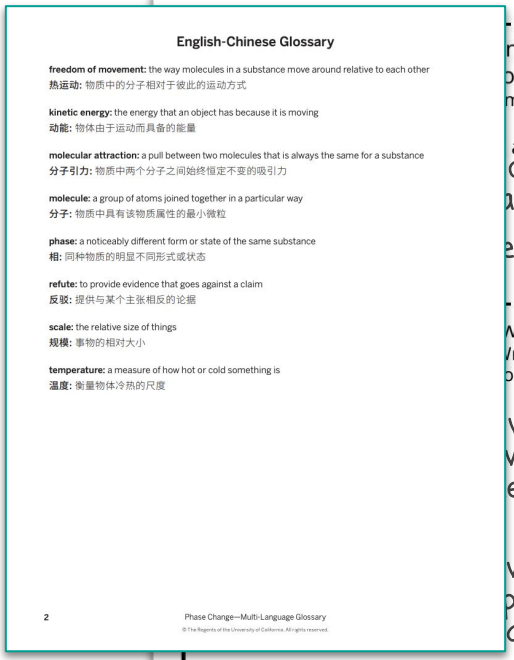
Supports:
- Provide students with the Multi-Language Glossary where appropriate
- Provide sentence starters
- Provide a transcript of the video

Extension:
- Have students generate ideas about why scientists consider dead things to be biotic matter rather than abiotic matter--to think about how dead things are fundamentally different from things that were never alive.



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Supports:
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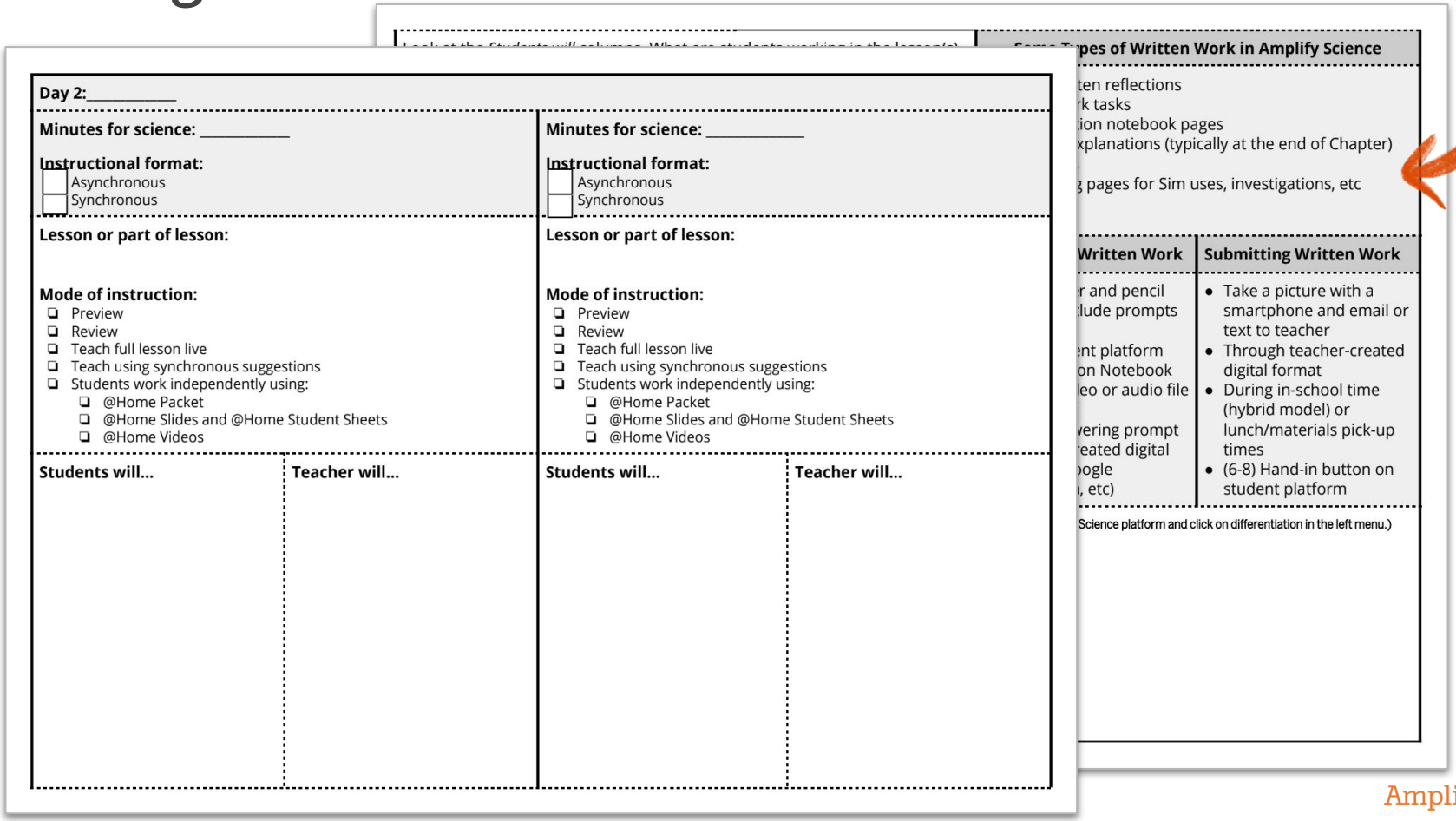
- Provide sentence starters
- Provide a transcript of the video

Extension:
- Have students consider what tools would be needed to make additional observations of the substances

Planning Resource

Pages 8-9



Day 2:_____

Minutes for science: _____ Instructional format: ☐ Asynchronous ☐ Synchronous	Minutes for science: _____ Instructional format: ☐ Asynchronous ☐ Synchronous
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Students will... / Teacher will...	Students will... / Teacher will...

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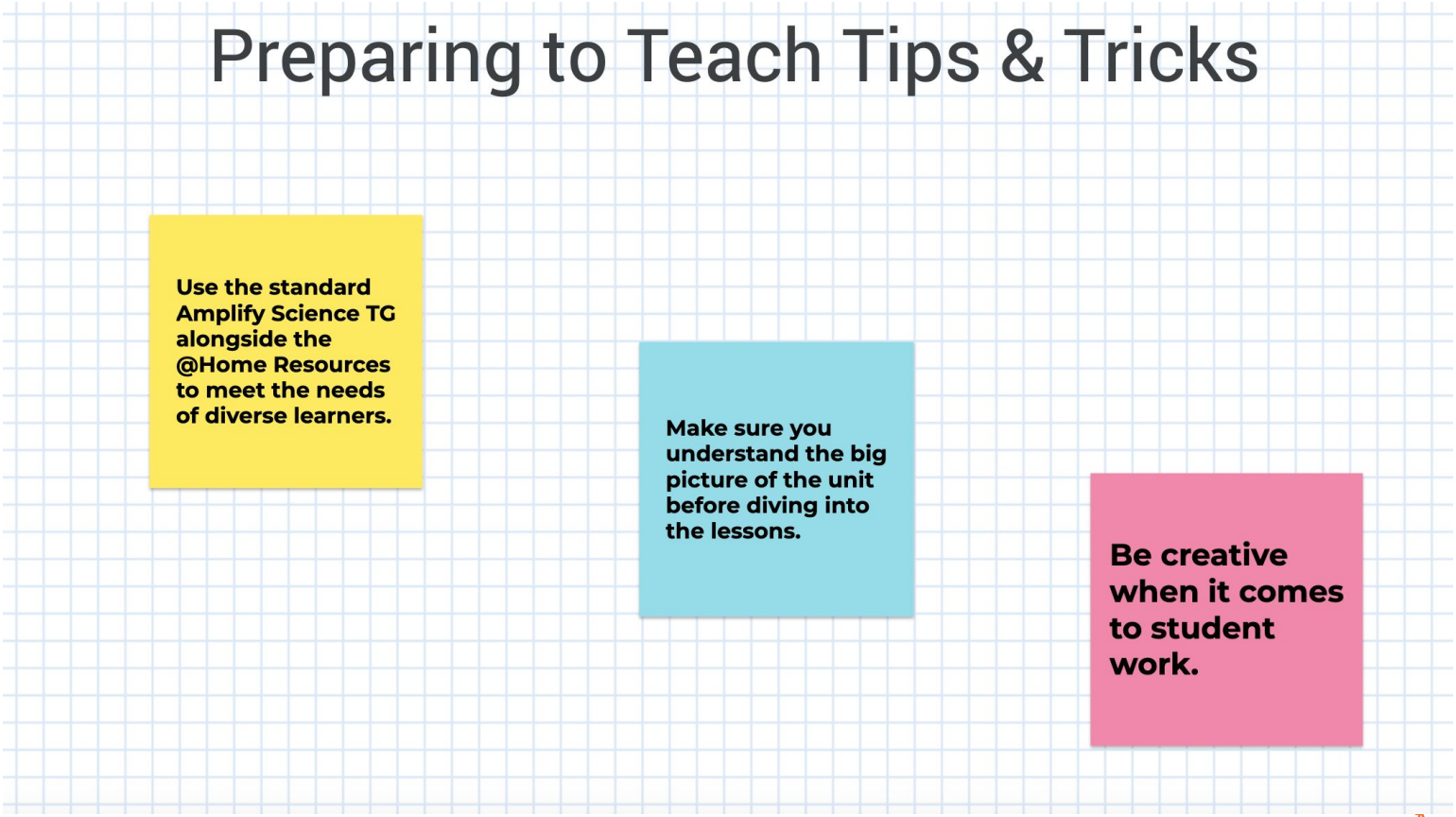
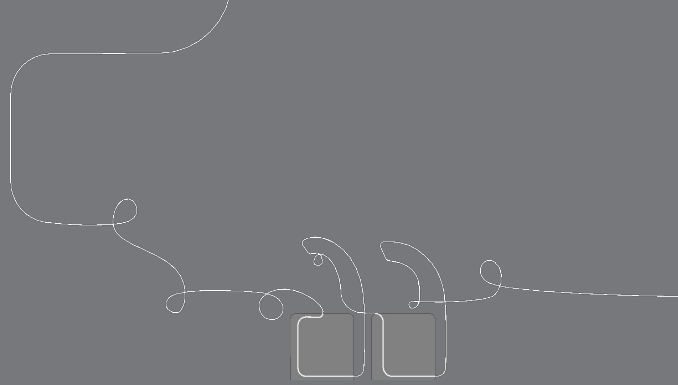
Science platform and click on differentiation in the left menu.)

Amplify.

Sample Jamboard # 2





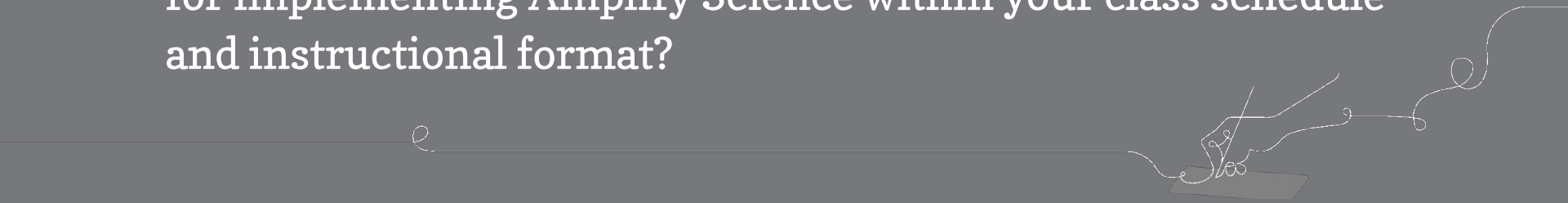
Questions?

Plan for the day

- Framing the day
  - Amplify Science Refresher
  - Instructional Materials
- Unit Internalization
- Planning to teach
  - Collecting evidence of student learning to meet diverse learner needs
- **Reflection and closing**

During this workshop did we meet our objectives?

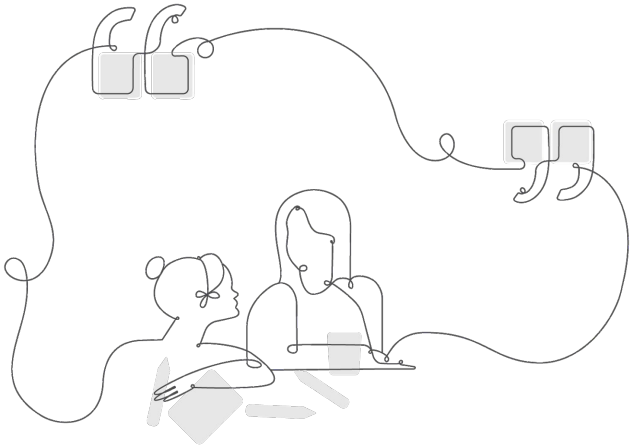
- Were you able to internalize your upcoming unit?
- Do you know how to plan for **collecting evidence of student learning** in order to make instructional decisions to **support diverse learner needs**?
- Do you have the resources you need to develop a multi-day plan for implementing Amplify Science within your class schedule and instructional format?



Upcoming LAUSD Office Hours

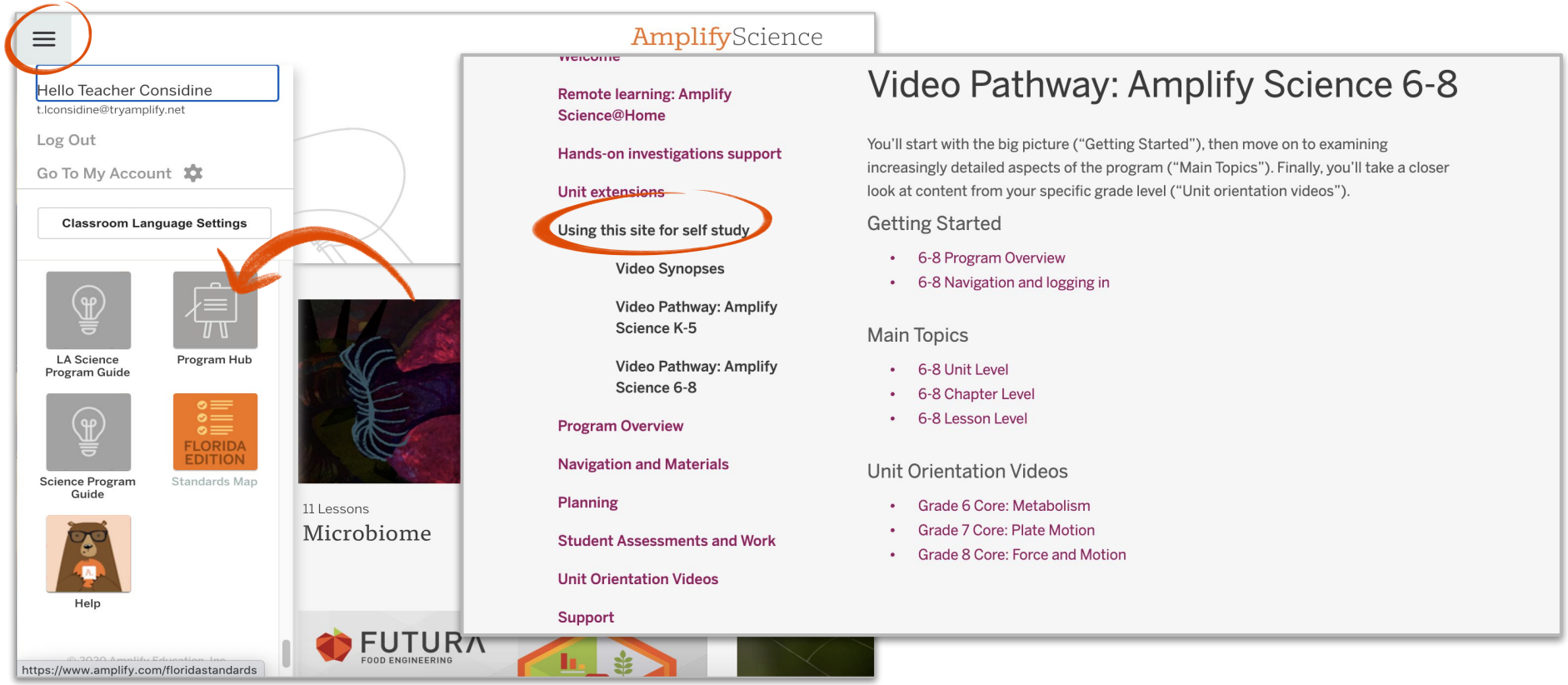
Monthly through January

- Thursday, 12/10 (3-4pm)
- Thursday, 1/14 (3-4pm)

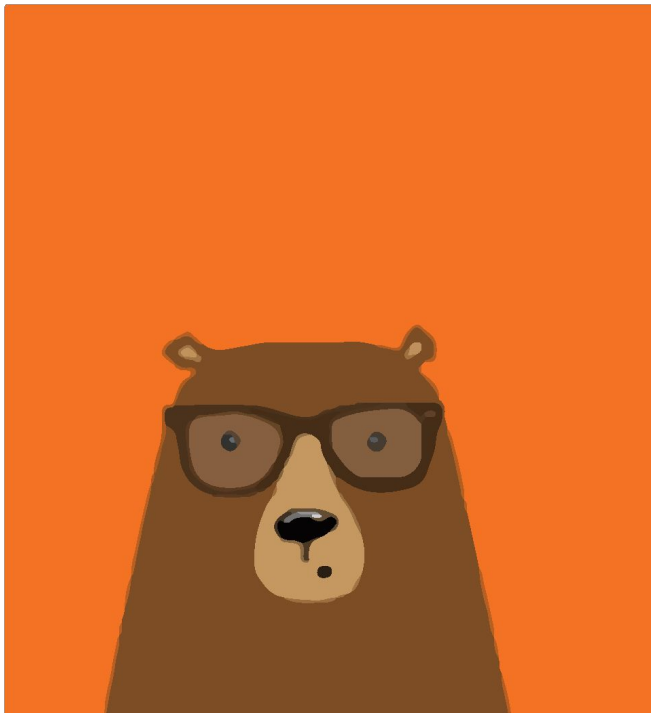


http://bit.ly/LAUSDMSOfficeHours

Program Hub: Self Study Resources



Additional Amplify resources

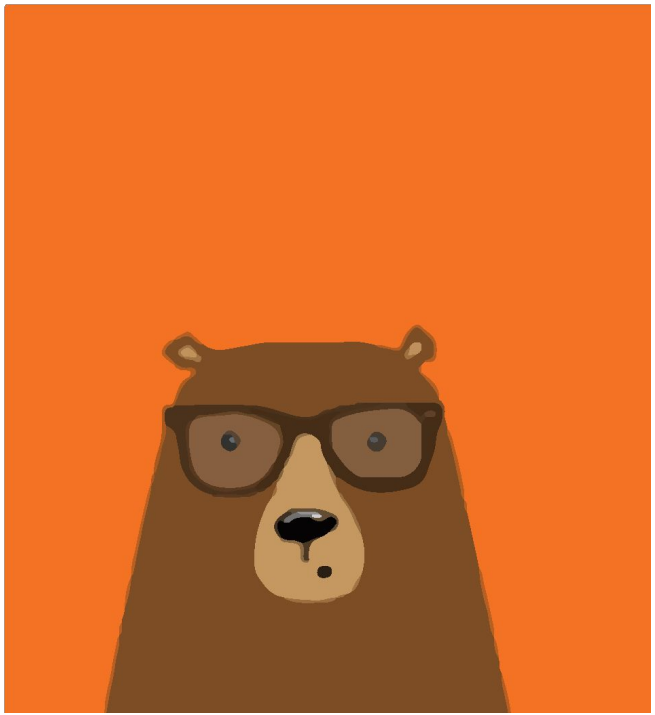


Caregivers site

Provide your students' families information about Amplify Science and what students are learning

amplify.com/amplify-science-family-resource-intro/

Additional Amplify resources



Program Guide

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

http://amplify.com/science/california/review

Amplify Help

Find lots of advice and answers from the Amplify team.

my.amplify.com/help

Additional Amplify Support

Customer Care

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

scihelp@amplify.com

800-823-1969

Amplify Chat

When contacting the customer care team:

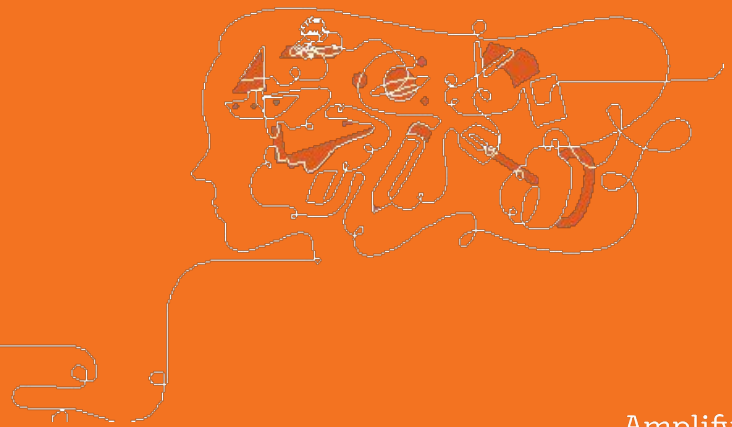
- Identify yourself as an Amplify Science user.
- Note the unit you are teaching.
- Note the type of device you are using (Chromebook, iPad, Windows, laptop).
- Note the web browser you are using (Chrome or Safari).
- Include a screenshot of the problem, if possible.
- Copy your district or site IT contact on emails.

Please provide us feedback!

URL: https://www.surveymonkey.com/r/AmplifyLAUSDMS

Presenter names :

Date:



Creating Assignments in Schoology

- Click Add Materials.
- Select Add Assignment.
- Fill out the Create Assignment form.
- Options. Use Options to turn on/off the following features: Use Individually Assign to only display the assignment to a specific member of the course or a grading group.
- Click Create to complete