

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

Amplify Science

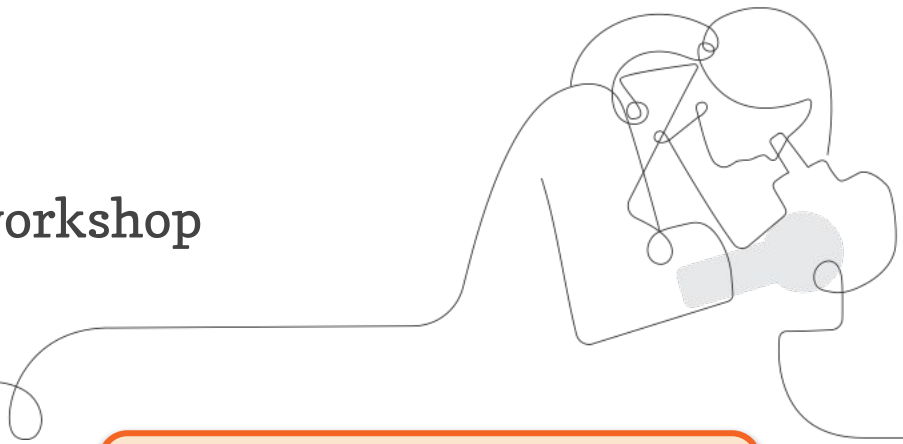
Unit Internalization & Guided Planning

Deep-dive and strengthening workshop
Grade 7, Chemical Reactions

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

The diagram illustrates the setup for a two-window webinar. An inset shows a mouse cursor clicking a green window icon in a taskbar. Two windows are shown side-by-side:

- Window #1:** A Google Meet window titled "Meet - Etiwanda Grade 7 N". The URL is `meet.google.com/hcs-dxpk-wrm?aut...`. The content area is mostly black, with a sidebar on the right showing a list of participants and a "You" icon.
- Window #2:** An Amplify Curriculum website window titled "Amplify Curriculum". The URL is `apps.learning.amplify.com/curriculu...`. The page displays "Lesson 1.2: Using Fossils to Understand Earth" with a background image of a dinosaur. The sidebar on the right shows a list of resources including "Lesson Brief (4 Activities)", "WARM-UP Warm-Up", "TEACHER Why Geologists Value Fossils", and "TEACHER-LED DISCUSSION Introducing Mesos".

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.

e





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





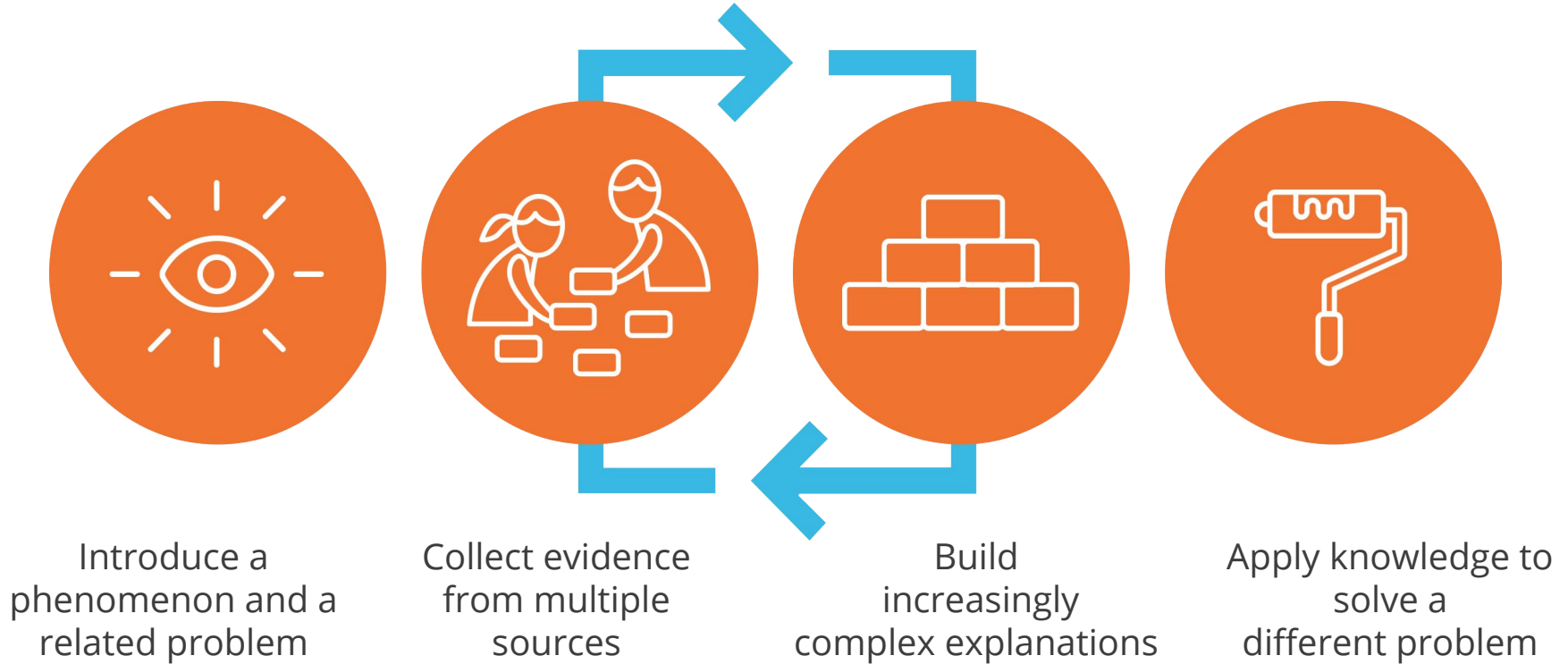
Plan for the day

- **Framing the day**
 - **Amplify Science Refresher**
 - **Instructional Materials**
- Unit Internalization
- Planning to teach
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- Reflection and closing



Amplify Science Refresher

Amplify Science Instructional Approach



Middle school course curriculum structure

Integrated model*

Grade 6

- Launch: Microbiome
- Metabolism
- Engineering Internship: Metabolism
- Traits and Reproduction
- Thermal Energy
- Ocean, Atmosphere, and Climate
- Weather Patterns
- Earth's Changing Climate
- Engineering Internship: Earth's Changing Climate

Grade 7

- Launch: Geology on Mars
- Plate Motion
- Engineering Internship: Plate Motion
- Rock Transformations
- Phase Change
- Engineering Internship: Phase Change
- Chemical Reactions
- Populations and Resources
- Matter and Energy in Ecosystems

Grade 8

- Launch: Harnessing Human Energy
- Force and Motion
- Engineering Internship: Force and Motion
- Magnetic Fields
- Light Waves
- Earth, Moon, and Sun
- Natural Selection
- Engineering Internship: Natural Selection
- Evolutionary History

Launch units

- First unit
- 11 lessons

Core units

- Majority of units
- 19 lessons

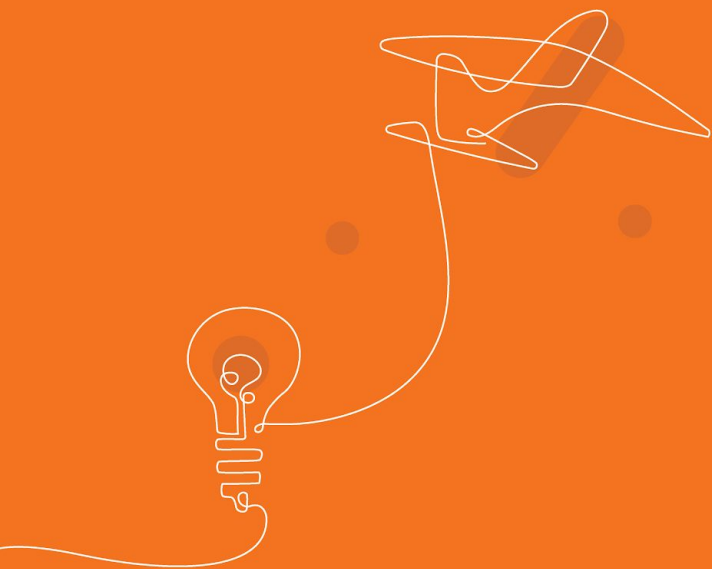
AmplifyScience

authored by



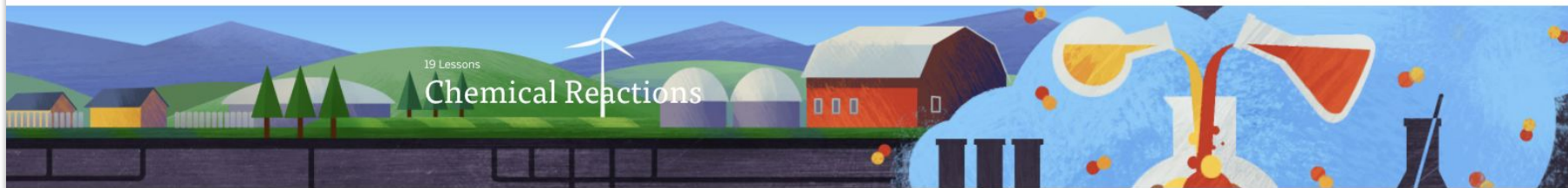
THE LAWRENCE
HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

*These are the prioritized units for 7th grade.



Instructional Materials

Standard Amplify Science Curriculum



Standard Amplify Science Curriculum

The Phase Change unit has **19 lessons** across 4 chapters. Each lesson is written to be **45 minutes** long.

JUMP DOWN TO UNIT GUIDE



GENERATE PRINTABLE TEACHER'S GUIDE



Chapter 1:
Properties and
Atoms

6 Lessons



Chapter 2: Reactions

5 Lessons



Chapter 3:
Accounting for
Atoms

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.

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


Articles in This Unit


Apps in This Unit


Flexextensions in This Unit


Printable Resources


 Article Compilation


 Coherence Flowchart


 Copymaster Compilation

 Flexextension Compilation

 Investigation Notebook

 NGSS Information for Parents and Guardians

 Print Materials (8.5" x 11")

 Print Materials (11" x 17")

Offline Preparation

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

Skip slide if modeling live on the platform.

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.

The screenshot shows the Amplify Science curriculum interface for Lesson 1.2: A Water Mystery in Westfield. The header includes the Amplify Science logo, "CALIFORNIA EDITION", and navigation links for "Chemical Reactions", "Chapter 1", and "Lesson 1.2". The main title "Lesson 1.2: A Water Mystery in Westfield" is displayed over a background of red and blue spheres. Below the title is a navigation bar with three tabs: "Lesson Brief (3 Activities)", "1 WARM-UP Warm-Up", and "2 TEACHER-LED DISCUSSION Investigating a Mysterious Substance". The "Lesson Brief" tab is selected. The main content area shows the "Overview" section, which includes a "RESET LESSON" button and a "GENERATE PRINTABLE LESSON GUIDE" button. The "Overview" text describes the lesson's purpose: to introduce students to the idea that chemists observe substances in order to identify them. A yellow box with the text "Skip slide if modeling live on the platform." is overlaid on the right side of the page. The bottom of the page features a "Printable Chemical Reactions Multi-Language Glossary" button and a "Spanish" language selector.

AmplifyScience CALIFORNIA EDITION > Chemical Reactions > Chapter 1 > Lesson 1.2

Lesson 1.2:
A Water Mystery in Westfield

Lesson Brief (3 Activities) | 1 WARM-UP Warm-Up | T TEACHER Video: Using Chemistry to Keep Water Safe | 2 TEACHER-LED DISCUSSION Investigating a Mysterious Substance | 3 HANDS-ON Observing Substances

RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

Overview

Digital Resources

Skip slide if modeling live on the platform.

Printable Chemical Reactions Multi-Language Glossary

Español



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

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

Articles in This Unit

Apps in This Unit

Flextensions in This Unit

Printable Resources

Article Compilation

Coherence Flowchart

Copymaster Compilation

Flextension Compilation

Investigation Notebook

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

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

Planning for the Unit

Unit Overview

Unit Map

Progress Build

Getting Ready to Teach

Materials and Preparation

Science Background

Standards at a Glance

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Print Materials (11" x 17")

Offline Preparation

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

Offline Guide

Pages 2-3

Chemical Reactions

Planning for the Unit

Unit Map

Unit Map

Why is there a mysterious reddish-brown substance in the tap water of Westfield?

In the role of student chemists, students explore how new substances are formed as they investigate a problem with the water supply in the fictional town of Westfield. They analyze a reddish-brown substance that is in the water, the iron that the town's pipes are made of, and a substance from fertilizer found to have contaminated the wells that are the source of the town's water, and use their findings to explain the source of the contaminating substance.

Chapter 1: What is the reddish-brown substance in the water?

Students figure out: The reddish-brown substance is different from the pipe substance (Fe) and from the contaminant of the water supply (NaNO_3). Evidence for this is that each of their properties (color and texture) is so different. In addition, the groups of atoms that make them up are different. The pipe substance is made of Fe; the contaminant is made of NaNO_3 ; and the reddish-brown substance is made of Fe_2O_3 .

How they figure it out: They make careful observations of substances, read about atom groups, and gather evidence in the Simulation about the atoms of substances found in the Westfield water.

Chapter 2: How did the rust form?

Students figure out: A chemical reaction occurred between the iron on the inside of the pipes and the sodium nitrate that was mixed in with the water flowing through the pipes. During this reaction, atoms from the pipes and sodium nitrate rearranged to form new groups of atoms resulting in the new reddish-brown substance. It has iron atoms just like the pipes, and oxygen atoms just like the contaminant, but the properties of the reddish-brown substance are different from both because the way that the atoms are grouped is different. This is true even though the iron and sodium nitrate were the substances that combined to produce the reddish-brown substance.

How they figure it out: They conduct chemical reactions and observe reactants and products both in hands-on tests and in the Simulation. They also gather evidence from a token-based physical model of a chemical reaction. They express their ideas about the Westfield water in the Modeling Tool and in writing.

Chapter 3: What was produced during the reaction between the iron pipes and the fertilizer?

Students figure out: The reddish-brown substance (Fe_2O_3) is in the water because it was formed in the reaction, but it can be filtered out. The substance NaNO_3 was used up in the reaction, but its atoms couldn't have been destroyed. So, another substance (NaHCO_3) must be left behind. The NaCN can't be in the water because there were no carbon atoms in the water or the pipes, and atoms can't change types during chemical reactions.

How they figure it out: They read an article about combustion reactions that highlights conservation of atoms, and also gather related evidence by analyzing reactions in the Sim. They return to the token physical model. They analyze evidence from Westfield and express their conclusions by writing and creating a visual model.

1

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Chemical Reactions
Planning for the Unit

and the unknown

burn through a glass
in order to solve who
documentation in a

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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 4

Chemical Reactions
Planning for the Unit

Unit Map



Unit Map

Why is there a mysterious reddish-brown substance in the tap water of Westfield?

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2

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Pages 2-3

Chemical Reactions
Planning for the Unit

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Amplify.

Unit Guide Document

Unit Map

Lesson Overview
Compilation

Progress Build

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Chemical Reactions

What is the phenomenon students are investigating in your unit?

There is a mysterious reddish-brown substance in Westfield's water.

Unit Question:

How do new substances form?

Student role:

Student chemists

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

The reddish-brown substance in the water is rust. It formed because of a chemical reaction between the iron pipes and a fertilizer that has contaminated the wells in Westfield. During the chemical reaction, some of the atoms in the pipes and the fertilizer rearranged to form new groups of atoms resulting in the reddish-brown substance. Because of conservation of matter, the atoms that did not rearrange to form the rust must have rearranged to form another product, too.

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

Different substances have different properties. This is because every substance is made of a unique group of a certain type and number of atoms. This group repeats to make up the substance. During chemical reactions, atoms that make up the starting substance(s) rearrange to form different groups of atoms that repeat, resulting in different substances(s). During chemical reactions, the ending substances are formed from the same type and number of atoms that made up the starting substances because atoms cannot be created or destroyed.



Questions?



Plan for the day

- Framing the day
 - Amplify Science Refresher
 - Instructional Materials
- Unit Internalization
- **Planning to teach**
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- Reflection and closing



Unit Map

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Chapter 1: Properties and Atoms

▼ JUMP DOWN TO CHAPTER OVERVIEW

Lesson 1.1:
Pre-Unit Assessment

Lesson 1.2:
A Water Mystery in
Westfield

Lesson 1.3:
Analyzing
Substances and
Properties

Lesson 1.4:
“Atomic Zoom-In”

Lesson 1.5:
Investigating Atoms
and Properties

Lesson 1.6:
Identifying the
Reddish-Brown
Substance

Overview

Students are introduced to their role as student chemists. Their job is to investigate a mysterious reddish-brown substance coming out of the water pipes in Westfield, a rural neighborhood that gets its water from a well. As preparation for this task, students watch a brief documentary that introduces them to a practicing chemist who works in water treatment. Then, students begin the process of identifying the reddish-brown substance by observing its properties. They compare the properties of three substances: the reddish-brown substance, the substance that makes up the water pipes, and a fertilizer found in the well water. Based on the evidence they collect through these observations, students make an initial prediction about whether the reddish-brown substance is the same as or different from either the fertilizer or the substance that makes up the pipes. The purpose of the lesson is to introduce students to the idea that chemists observe substances in order to identify their properties.

Anchor Phenomenon: A reddish-brown substance is coming out of the water pipes in the neighborhood of Westfield.

Investigative Phenomenon: Three substances look different.

Students learn:

- Chemists observe substances in order to identify their properties.
- Scientists work in communities to help keep water clean and safe for consumption.
- Science investigations use a variety of methods and tools to make measurements and observations.

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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Modifications needed
for remote learning:

Classroom wall

Amplify Science @Home Curriculum

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

AmplifyScience

Hello Teacher Considine
t.lconsidine@tryamplify.net

Log Out

Go To My Account ⚙️

Classroom Language Settings

LA Science Program Guide

Program Hub

Science Program Guide

Standards Map

Help

6th Grade ▾

11 Lessons
Microbiome

19 Lessons
Metabolism

FUTURA
FOOD ENGINEERING

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<https://www.amplify.com/floridastandards>

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).

included with @Home Student Sheets.

by the audio feature in the Amplify Science @Home Lessons Library (links are

from their home.

nts are likely to have at home. (For activities video.)

ies in the @Home Units, a video / images of

ble. For example,

o students who need them.

Science kit, and have opportunities to teach hands-on activities with student input.

reference for students to track and reflect on or phenomenon and content, has been the list of Chapter Questions, key concepts, are provided in the last lesson of each chapter. Science Wall, you could have students:

@Home Science Wall pages.

ford that is introduced.

rd. These can be then posted on a wall, large

motely, you could create a virtual

routines

support for student reading includes: teacher up discussion of texts; multiple readings of y, as well as suggestions for additional

need more reading support. Some suggestions to offer @Home Lessons are:

ass or in small groups and read the first part of the article ling how you would read the text.

meet after reading to discuss their annotations.

meet with someone in their home to read at least some of the discuss their annotations after reading.

ience units students periodically talk in small groups using onships and Write and Share. You may consider including by having students meet and talk to their peers in small ent to conduct the routine with someone in their home.

unit in Amplify Science 6–8 culminates with a Science lass, student-led argumentation routine. An adapted version been included in the @Home Units. Some suggestions for

seminar in class, if you are meeting in person some of the

your whole class, remotely. Students can participate all at the ight break the group up in thirds or in half and have the t talking take notes using the Science Seminar Observations

pairs or small groups meeting on the phone, on video calls, rooms.

o someone in their household about the Science Seminar

nt considerations

iderations for assessment and feedback in the Amplify e pre-unit and end-of-unit assessments. Generally, we

ormat in which you collect student work. See the "Student

students, you may wish to focus on how students are n and/or the Chapter Questions, if they are using evidence rt their responses to questions, and if they are using in their responses.

onous and in-person learning

ing these asynchronous resources in is. If you are able to choose particular lessons d:

y figuring out the unit phenomenon.

o students can share their initial ideas or omenon.

its can talk as they make sense of evidence, of information, and make an explanation or

n conduct hands-on demonstrations when dents. Solicit student input as you

xy at home, when in-person, you can provide discuss ideas related to the simulations and

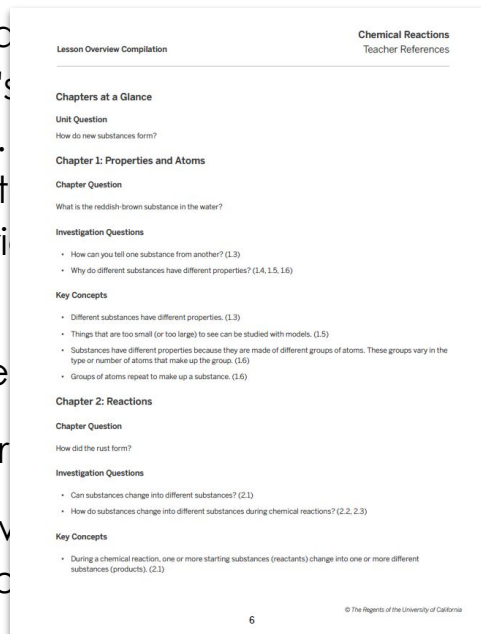
Pages 11-12

Classroom wall options

The classroom wall, which provides an important opportunity for students to track and reflect on their developing understanding of the unit's content, has been reimaged as an @Home Science Wall. This wall tracks concepts, and vocabulary that have been introduced in each chapter. To enhance students' experience, we have students:

- Draw a picture or write their ideas on the wall.
- Highlight each question, key concept, or vocabulary word.
- Cut out each question, key concept, or vocabulary word and paste it on a large sheet of paper, or refrigerator at home.

Additionally, if you are meeting with your class remotely, you can use the @Home Science Wall.



property (1.3) 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)

7

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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.

Modifications needed
for remote learning:

Classroom wall

Hands-on
investigation

Hands-on activity options

- Do the activity with simple materials students are likely to have at home. (For activities where this is feasible, instructions are provided.)
- Watch a video. (For some hands-on activities in the @Home Units, a video / images of the investigation are provided.)
- Do the activity using kit materials if available. For example,
 - If possible, send home materials to students who need them.
 - If you have access to your Amplify Science kit, and have opportunities to teach synchronously, demonstrate some hands-on activities with student input.

Overview

Materials & Preparation

Differentiation

Standards

Vocabulary

Unplugged?

11. Label and prepare 30 vials by following the instructions below:

- Attach “pipe substance” labels to 10 vials. Using the funnel, fill each vial with approximately 1 tablespoon of **iron filings** and close the lid.
- Attach “fertilizer” labels to 10 vials. Using the funnel, fill each vial with approximately 1 tablespoon of **sodium nitrate** and close the lid.
- Attach “reddish-brown substance” labels to 10 vials. Using the funnel, fill each vial with approximately 1 tablespoon of **iron oxide granules** and close the lid.



ial type on each tray. Each group of four



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.

- **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.



Lesson at a Glance

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Day 1: Lesson 12

Minutes for science: 15 min

Instructional format:



Asynchronous



Synchronous

Lesson or part of lesson:

Lesson 12 Warm-up and Video

Mode of instruction:



Preview



Review



Teach full lesson live



Teach using synchronous suggestions



Students work independently using:

☐ @Home Packet

☐ @Home Slides and @Home Student Sheets

☐ @Home Videos

Students 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

Teacher will...

create an assignment in Schoology asking students to complete the warm-up activity, view the video and list questions/comments. The teacher will review answer to the warm-up.

Minutes for science: _____

Instructional format:



Asynchronous



Synchronous

Lesson or part of lesson:

Mode of instruction:



Preview



Review



Teach full lesson live



Teach using synchronous suggestions



Students work independently using:

☐ @Home Packet

☐ @Home Slides and @Home Student Sheets

☐ @Home Videos

Students will...

Teacher will...

Day 1: Lesson 1.2			
Minutes for science: <u>15 min</u>		Minutes for science: <u>30 min</u>	
Instructional format: <input checked="" type="checkbox"/> Asynchronous <input type="checkbox"/> Synchronous		Instructional format: <input type="checkbox"/> Asynchronous <input checked="" type="checkbox"/> Synchronous	
Lesson or part of lesson: Lesson 1.2 Warm-up and Video		Lesson or part of lesson: Lesson 1.2 Activities 2 and 3	
Mode of instruction: <input checked="" type="checkbox"/> Preview <input type="checkbox"/> Review <input type="checkbox"/> Teach full lesson live <input type="checkbox"/> Teach using synchronous suggestions <input checked="" type="checkbox"/> Students work independently using: <input type="checkbox"/> @Home Packet <input type="checkbox"/> @Home Slides and @Home Student Sheets <input type="checkbox"/> @Home Videos		Mode of instruction: <input type="checkbox"/> Preview <input type="checkbox"/> Review <input type="checkbox"/> Teach full lesson live <input checked="" type="checkbox"/> Teach using synchronous suggestions <input type="checkbox"/> Students work independently using: <input type="checkbox"/> @Home Packet <input type="checkbox"/> @Home Slides and @Home Student Sheets <input type="checkbox"/> @Home Videos	
Students 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	Teacher will... create an assignment in Schoology asking students to complete the warm-up activity, view the video and list questions/comments. The teacher will review answer to the warm-up.	Students will... Activity 2: engage in a discussion about initial ideas about the mystery substance. Activity 3: observe images of the 3 substances and record their observations. Full-class discussion about properties.	Teacher will... Activity 2: lead students through intro to problem using Amplify Science site Activity 3: use teacher-created slides to facilitate observation and subsequent discussion about the 3 substances



Sample Teacher Created Slides

Classroom Wall

Unit Question

How do new substances form?

Chapter 1 Question

What is the reddish-brown substance in the water?



Key Concepts



Vocabulary

property

Pipe substance

Observe this sample taken from the water pipes used in Westfield. Dr. Yung broke down a piece of the pipe at her lab to make it easier to examine the substance.



Modified hands-on activity

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: record observations of the three substances

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, and jot initial questions and comments about the video on paper to bring with them to the asynchronous lesson

Synchronous: during activity 3, students will submit their observations on the Amplify Science site OR by taking a picture of their notes and emailing them.

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

Completing 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)

Submitting Written Work

- 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
 反驳: 提供与某个主张相反的论据

scale: the relative size of things
 规模: 事物的相对大小

temperature: a measure of how hot or cold something is
 温度: 衡量物体冷热的尺度

2

Phase Change—Multi-Language Glossary
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Some Types of Written Work in Amplify Science

- Daily written reflections
- Homework tasks
- Investigation notebook pages
- Written explanations (typically at the end of Chapter)

pages for Sim uses, investigations, etc

Written Work

and pencil
 ide prompts

Submitting Written Work

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- 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
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nns. What are students working in the lesson(s)
 or provide feedback on?

Amplify Science to the right for guidance.

d above, do you want to add one? Make notes below.

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vor

s Will submit warm-up work digitally
 website, and jot initial questions and
 deo on paper to bring with them to the

activity 3, students will submit their
 Amplify Science site OR by taking a
 and emailing them.

- I notice/observe ...
- I think this is important because ...
- I wonder ...

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.)

Supports:

- Provide students with the Multi-Language Glossary where appropriate
- 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 6-9

Day 2: _____		Day 3: _____	
Minutes for science: _____		Minutes for science: _____	
Instructional format: <input type="checkbox"/> Asynchronous <input type="checkbox"/> Synchronous		Instructional format: <input type="checkbox"/> Asynchronous <input type="checkbox"/> Synchronous	
Lesson or part of lesson:		Lesson or part of lesson:	
Mode of instruction: <input type="checkbox"/> Preview <input type="checkbox"/> Review <input type="checkbox"/> Teach full lesson live <input type="checkbox"/> Teach using synchronous suggestions <input type="checkbox"/> Students work independently using: <input type="checkbox"/> @Home Packet <input type="checkbox"/> @Home Slides and @Home Student Sheets <input type="checkbox"/> @Home Videos		Mode of instruction: <input type="checkbox"/> Preview <input type="checkbox"/> Review <input type="checkbox"/> Teach full lesson live <input type="checkbox"/> Teach using synchronous suggestions <input type="checkbox"/> Students work independently using: <input type="checkbox"/> @Home Packet <input type="checkbox"/> @Home Slides and @Home Student Sheets <input type="checkbox"/> @Home Videos	
Students will...	Teacher will...	Students will...	Teacher will...

Types of Written Work in Amplify Science	
ten reflections rk tasks ion notebook pages explanations (typically at the end of Chapter) g pages for Sim uses, investigations, etc	
Written Work	Submitting Written Work
r and pencil lude prompts ent platform on Notebook leo or audio file vering prompt eated digital oogle y, etc)	<ul style="list-style-type: none"> 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
Science platform and click on differentiation in the left menu.)	

Sample Jamboard # 2

Preparing to Teach Tips & Tricks

Use the standard Amplify Science TG alongside the @Home Resources to meet the needs of diverse learners.

Make sure you understand the big picture of the unit before diving into the lessons.

Be creative when it comes to student work.



Questions?



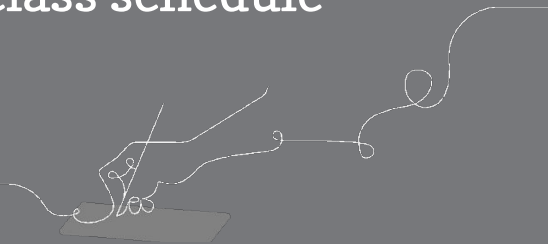
Plan for the day

- 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?

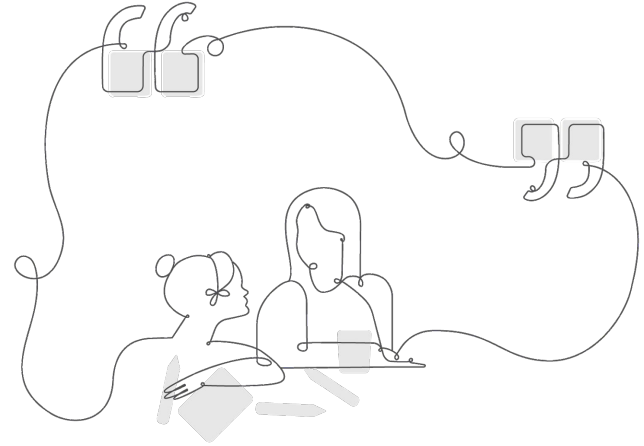
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Upcoming LAUSD Office Hours

Monthly through January

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



<http://bit.ly/LAUSDMSOfficeHours>

Program Hub: Self Study Resources

The screenshot displays the Amplify Science Program Hub. On the left is a sidebar menu with a hamburger icon circled in orange. The menu items include: 'Hello Teacher Considine' (with email t.lconsidine@tryamplify.net), 'Log Out', 'Go To My Account' (with a gear icon), 'Classroom Language Settings', 'LA Science Program Guide' (lightbulb icon), 'Program Hub' (screen icon, highlighted with an orange arrow), 'Science Program Guide' (lightbulb icon), 'FLORIDA EDITION Standards Map' (orange square with white text), 'Help' (bear icon), and '11 Lessons Microbiome' (with a microbiome image). The main content area is titled 'Amplify Science' and lists several resource categories: 'Remote learning: Amplify Science@Home', 'Hands-on investigations support', 'Unit extensions' (circled in orange), 'Using this site for self study' (circled in orange), 'Video Synopses', 'Video Pathway: Amplify Science K-5', 'Video Pathway: Amplify Science 6-8', 'Program Overview', 'Navigation and Materials', 'Planning', 'Student Assessments and Work', 'Unit Orientation Videos', and 'Support'. On the right, a section titled 'Video Pathway: Amplify Science 6-8' explains the learning path: 'You'll start with the big picture ("Getting Started"), then move on to examining increasingly detailed aspects of the program ("Main Topics"). Finally, you'll take a closer look at content from your specific grade level ("Unit orientation videos").' Below this are three sub-sections: 'Getting Started' with links to '6-8 Program Overview' and '6-8 Navigation and logging in'; 'Main Topics' with links to '6-8 Unit Level', '6-8 Chapter Level', and '6-8 Lesson Level'; and 'Unit Orientation Videos' with links to 'Grade 6 Core: Metabolism', 'Grade 7 Core: Plate Motion', and 'Grade 8 Core: Force and Motion'. The footer includes the 'FUTURA FOOD ENGINEERING' logo and the URL 'https://www.amplify.com/floridastandards'.

Amplify Science

Welcome

Remote learning: Amplify Science@Home

Hands-on investigations support

Unit extensions

Using this site for self study

Video Synopses

Video Pathway: Amplify Science K-5

Video Pathway: Amplify Science 6-8

Program Overview

Navigation and Materials

Planning

Student Assessments and Work

Unit Orientation Videos

Support

Video Pathway: Amplify Science 6-8

You'll start with the big picture ("Getting Started"), then move on to examining increasingly detailed aspects of the program ("Main Topics"). Finally, you'll take a closer look at content from your specific grade level ("Unit orientation videos").

Getting Started

- 6-8 Program Overview
- 6-8 Navigation and logging in

Main Topics

- 6-8 Unit Level
- 6-8 Chapter Level
- 6-8 Lesson Level

Unit Orientation Videos

- Grade 6 Core: Metabolism
- Grade 7 Core: Plate Motion
- Grade 8 Core: Force and Motion

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https://www.amplify.com/floridastandards

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:

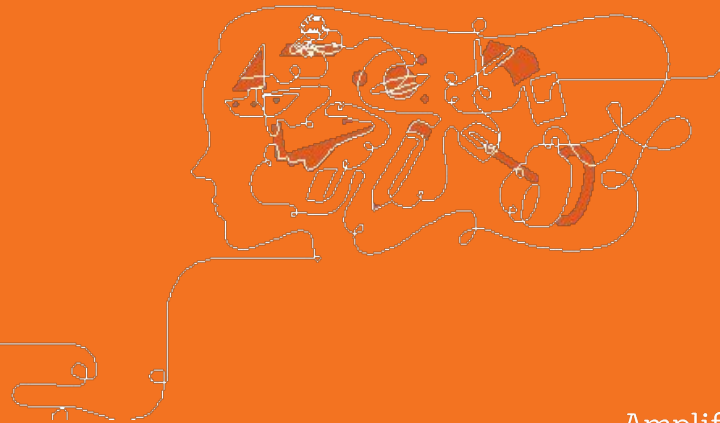
- Identify yourself as an Amplify Science user.
- Note the unit you are teaching.
- Note the type of device you are using (Chromebook, iPad, Windows, laptop).
- Note the web browser you are using (Chrome or Safari).
- Include a screenshot of the problem, if possible.
- Copy your district or site IT contact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

Please provide us feedback!

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

Presenter names (choose 1):

Date: xx



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

LAUSD Shared Logins

AmplifyScience

Go to: my.amplify.com

A.

Log In with Amplify

District Shared Logins		
Grade	Username	Password
Kindergarten	LAUSDscienceK	LAUSD1234
1	LAUSDscience1	LAUSD1234
2	LAUSDscience2	LAUSD1234
3	LAUSDscience3	LAUSD1234
4	LAUSDscience4	LAUSD1234
5	LAUSDscience5	LAUSD1234
6	LAUSDscience6	LAUSD1234
7	LAUSDscience7	LAUSD1234
8	LAUSDscience8	LAUSD1234

Elementary Student Apps Shared Logins

English

- Username: **ampsci123**
- Password: **ampsci123**

Spanish

- Username: **ampsci123sp**
- Password: **ampsci123sp**



Elementary Student Apps