

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: Please use the chat to self-reflect on your ability to navigate the Amplify Science curriculum (1= very uncomfortable to 5 = very comfortable).

Amplify Science

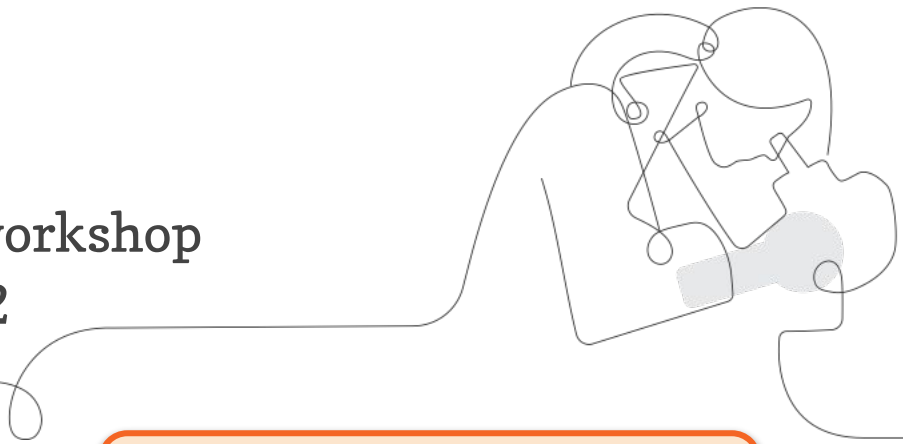
Unit Internalization Part I

Deep-dive and strengthening workshop
Light and Sound, Grade 1

LAUSD

12/x/2020

Presented by Your Name



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

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



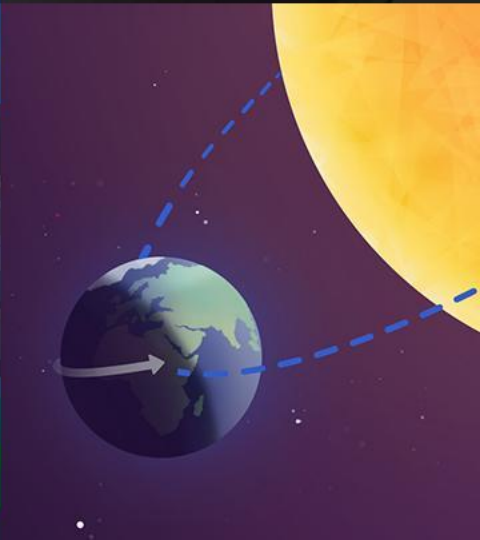
Engage at your comfort level - chat, ask questions, discuss, share!

Use two windows for today's webinar

The diagram illustrates the setup for a two-window webinar. An inset box shows a close-up of the window control buttons (red, yellow, green) with an arrow pointing to the green button, indicating how to maximize or click through to the next window. Two orange arrows labeled "Window #1" and "Window #2" point to the respective browser windows.

Window #1: A Google Meet window titled "Meet - Etiwanda Grade 7 N". The URL is meet.google.com/hcs-dxpk-wrm?aut.... The page shows a Google Meet interface with a video player and a sidebar with options like "Flexension Compilation", "Investigation Notebook", "NGSS Information for Parents and Guardians", "Print Materials (11" x 17")", and "Print Materials (8.5" x 11")".

Window #2: An Amplify Curriculum window titled "Amplify Curriculum". The URL is apps.learning.amplify.com/curriculum.... The page displays "Lesson 1.2: Using Fossils to Understand Earth" with a large illustration of a dinosaur. The sidebar includes sections like "Lesson Brief (4 Activities)", "Lesson Brief", "Overview", "Materials & Preparation", "Differentiation", and "Digital Resources".

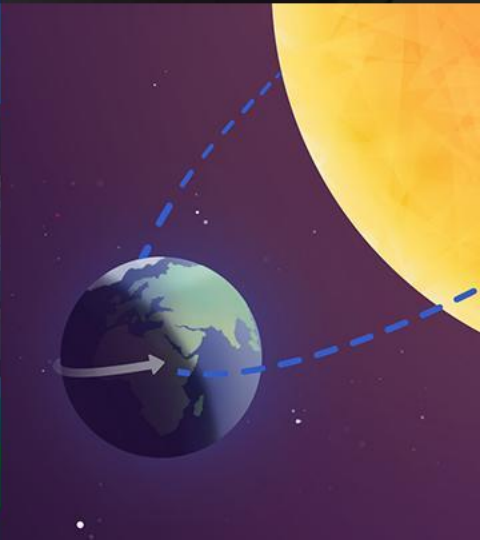


Plan for the day

- Framing the day
 - Instructional materials
 - Workshop goals
- Instructional approach: early childhood
- Unit internalization
- Program Hub
- Reflection and closing



Questions?



Plan for the day

- **Framing the day**
 - **Instructional materials**
 - **Workshop goals**
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Elementary school course curriculum structure

Grade K

- Needs of Plants and Animals
- Pushes and Pulls
- Sunlight and Weather

Grade 1

- Animal and Plant Defenses
- Light and Sound
- Spinning Earth

Grade 2

- Plant and Animal Relationships
- Properties of Materials
- Changing Landforms

Grade 3

- Balancing Forces
- Inheritance and Traits
- Environments and Survival
- Weather and Climate

Grade 4

- Energy Conversions
- Vision and Light
- Earth's Features
- Waves, Energy, and Information

Grade 5

- Patterns of Earth and Sky
- Modeling Matter
- The Earth System
- Ecosystem Restoration

Amplify Science

authored by

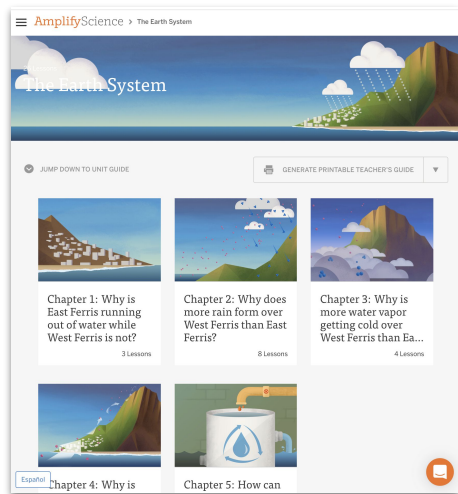


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UNIVERSITY OF CALIFORNIA

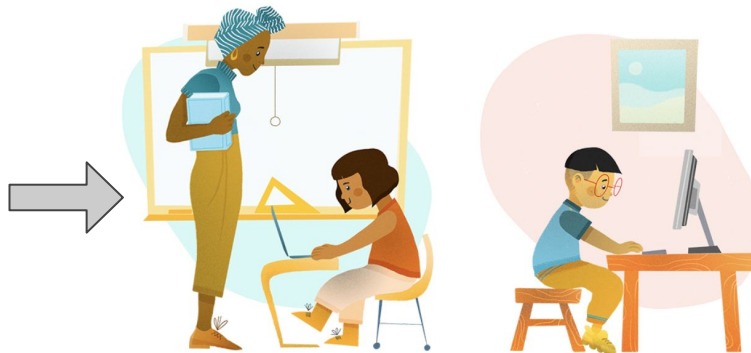
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Instructional materials options

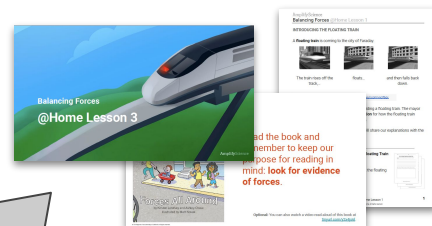
Related but unique resources



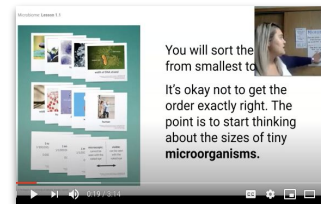
Original Amplify
Science curriculum



Amplify Science@Home



@Home Units



@Home Videos

2-Part Unit-specific PD

Part I: Today

Focus on learning the Light and Sound unit content and the early childhood instructional approach in Amplify Science

Part II: January

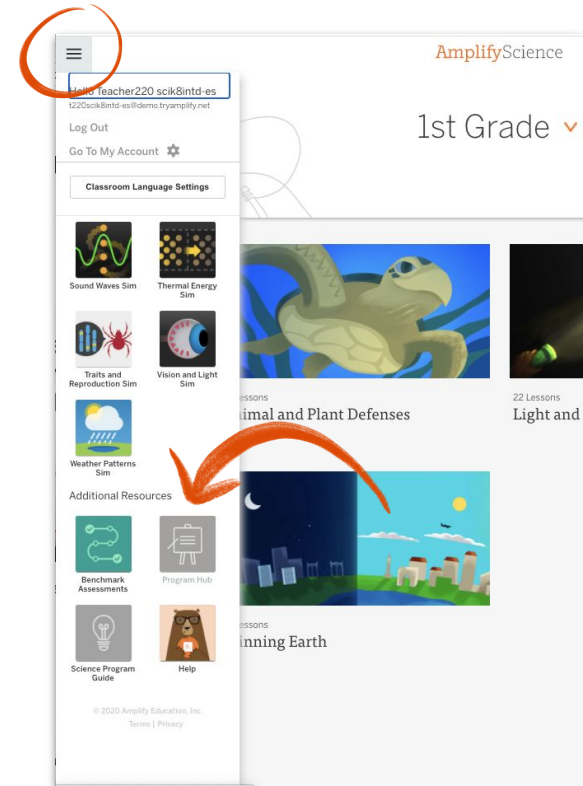
Planning to teach the unit remotely



Accessing Amplify Science@Home

Amplify Science Program Hub

- New site containing Amplify Science@Home and additional PL resources
- Accessible via the Global Navigation menu

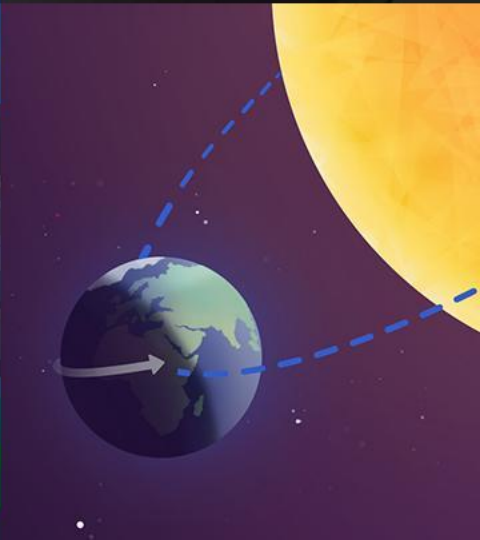


Workshop goals

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

- Explain the science concepts students will figure out in your upcoming unit
- Describe the unit's anchor phenomenon and key activities students will use as evidence in explaining the phenomenon
- Navigate to @Home resources when they become available





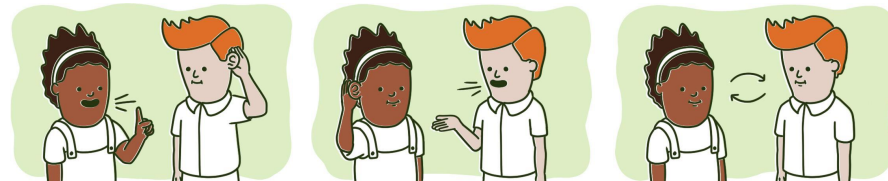
Plan for the day

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- **Instructional approach:
Early childhood**
- Unit internalization
- Program Hub
- Reflection and closing

Instructional approach: Early childhood

Oral language development as a precursor to scientific writing

- Student-to-student discourse routines (shared listening, think-draw-pair-share)
- Sentence stems and language frames
- Explicit vocabulary instruction
- Shared writing

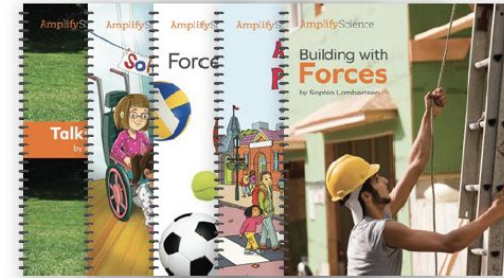


Instructional approach: Early childhood

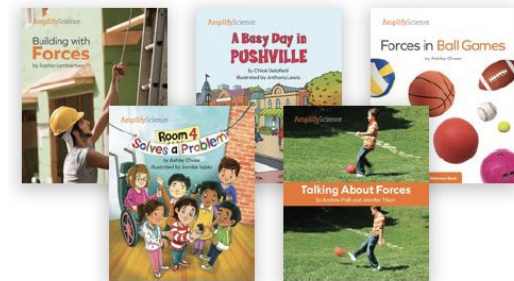
Modeling expert reading of complex texts

- Big books
- Read-alouds of most complex texts
- Shared reading
- Instructional guide supports teacher modeling, think-alouds, and questioning

Big Books



Student Books



Instructional approach: Early childhood

Repetition and practice

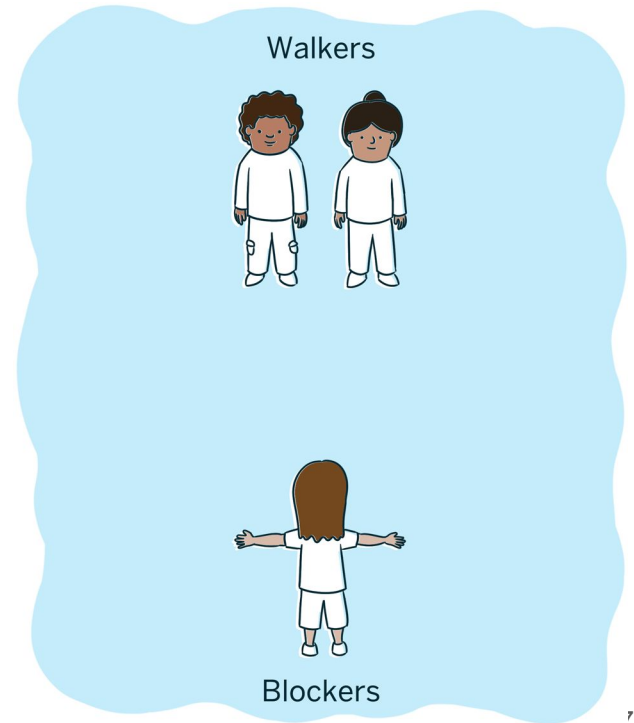
- Gathering evidence for key science concepts in multiple modalities
- Revisiting texts over multiple days
- Viewing videos multiple times



Instructional approach: Early childhood

Attending to developmental attention span

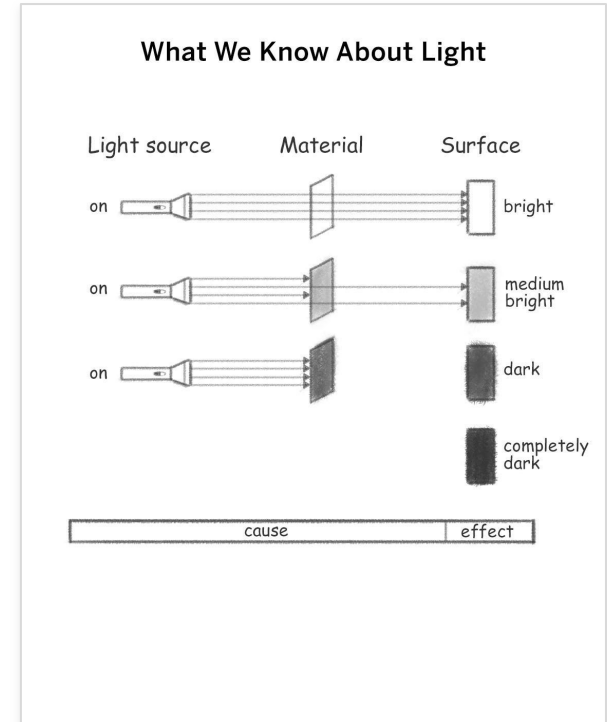
- Short activities (generally 15-minute max)
- Kinesthetic connections
- Movement and talking breaks
- Opportunities for personal connections

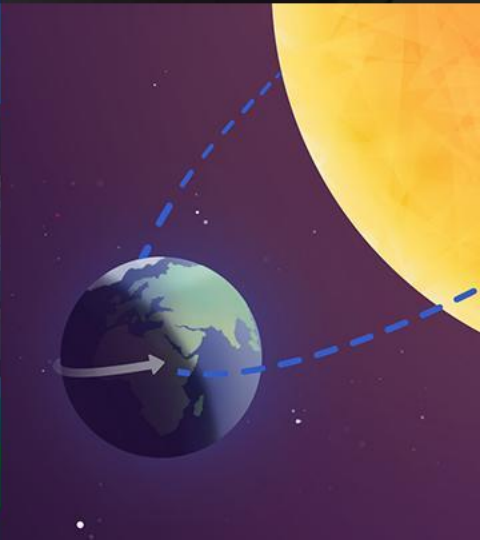


Instructional approach: Early childhood

Co-constructed charts to track learning

- Visual representation of the science ideas students figure out
- Revisited and added to throughout the unit to reflect new understanding
- Supports students' mental models or visualization of science concepts





Plan for the day

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- **Unit internalization**
- Program Hub
- Reflection and closing

A hand holding a flashlight, shining a beam of light. The flashlight is green and yellow, and the beam is a bright yellow-green. The background is dark and blurry.

Grade 1 | Light and Sound

Lesson 1.1: Pre-Unit Assessment

Activity 2

Introducing the Context of the Unit



A **puppet-theater company** has come to us with a **problem** that they think we can **solve** by using **light and sound**.

Their puppet shows use many heavy parts that are difficult to carry around. They are hoping that we can figure out how to **use light to make a picture on a wall** instead.

Let's look at a picture of their puppet shows and talk about what we notice.





A **scene** is the **background** of a play or a puppet show.

The puppet-theater company wants us to create a scene using light.



Puppet Scene Design Goals

- The scene should have a bright area.



- The scene should have a dark area.



- The scene should have a medium bright area, between bright and dark.



This chart shows our **design goals**.

The puppet-theater company asked us to make scenes that create **three different areas** on the wall.

Example end-of-unit complete puppet scene

Puppet Scene Design Goals

- The scene should have a bright area.



- The scene should have a dark area.



- The scene should have a medium bright area, between bright and dark.



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?



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



Guided Unit Internalization

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Unit Map

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Offline Guide

Light and Sound

Planning for the Unit

Unit Map

Unit Map

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

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

Chapter 1: How do we make brighter or darker areas on a surface?

Students figure out: Without light, we cannot see. Light comes from a source and travels to a surface. Light from the source must be getting to the surface in order to make some parts of the surface look bright. If there is no light source, a surface looks dark.

How they figure it out: The class attempts, in vain, to make the classroom completely dark, identifying light sources at each failed attempt. Students read a book about whether one can see in the dark, and then they hunt for light sources in their school and in the pictures of a book. Students investigate a series of questions with their own light source (a flashlight), investigating how light gets to a surface.

Chapter 2: How do we make a dark area in a bright puppet show scene?

Students figure out: A dark area is the result of putting an object between a light source and a surface. When an object blocks a light source, the surface behind the object looks darker. This dark area is called a shadow.

How they figure it out: Students explore by making shadows on different surfaces. They then investigate how to make a dark area on the surface by using different materials to block light from reaching a surface.

Chapter 3: How do we make bright, medium bright, and dark areas in a puppet show scene?

Students figure out: Different materials let different amounts of light pass through. Bright areas are the result of all or almost all the light passing through an object and reaching a surface. This happens if there is no object or if the object is transparent. Medium-bright areas result when only some of the light passes through and reaches the surface. Dark areas happen because no light passes through an object. Light is blocked, so the surface looks dark.

How they figure it out: Students refine their understanding of how light interacts with different materials and work as light engineers to plan, make, and test shadow scenery. Based on what they learn, students revise their own shadow scene to meet a set of design goals. Students write explanations of their scenes for the puppet-show company.

Chapter 4: How do we design a sound source to go with a puppet show scene?

Students figure out: Sound has a source, just like light does. Sound is made when an object vibrates. The object that vibrates is the source of the sound. Like light, sound also travels. Sound travels from the source to our ears. You can start and stop sound by starting and stopping the vibration of an object.

2

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3

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Pages 2-3

Amplify.

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Light and Sound

What is the phenomenon students are investigating in your unit?

Puppet show scenes have brighter and darker areas.

Unit Question:

How do we make different parts of a surface brighter or darker?

Student role:

Light and sound engineers

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

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



Example end-of-unit complete puppet scene

Puppet Scene Design Goals

- The scene should have a bright area.



- The scene should have a dark area.



- The scene should have a medium bright area, between bright and dark.



Guided Unit Internalization

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

...how to design and explain puppet show scene with a dark area, a bright area, and a medium-bright area.

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



Guided Unit Internalization

Part 1: Unit-level internalization

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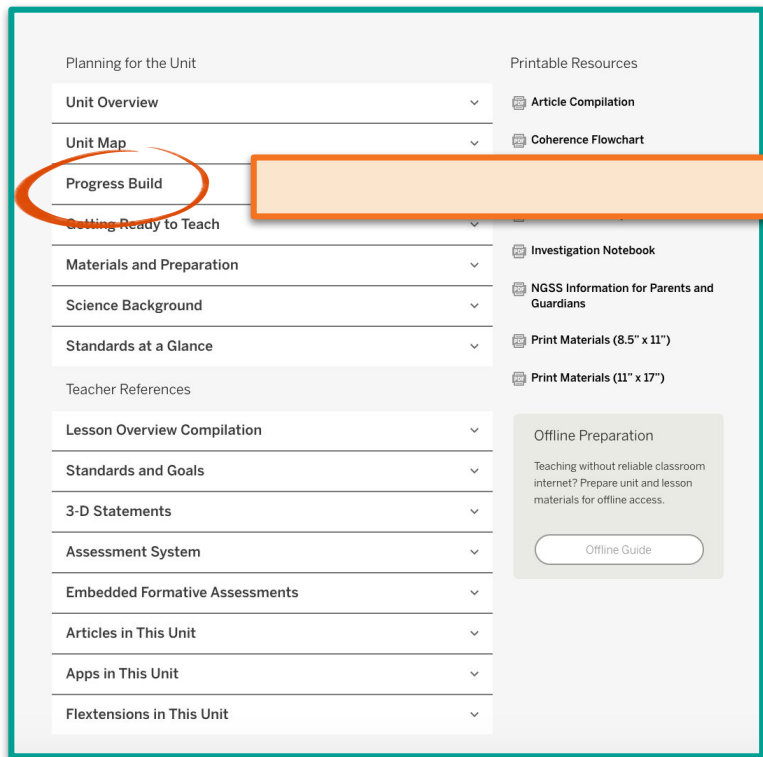
By the end of the unit, students figure out ...

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



Progress Build



Planning for the Unit

- Unit Overview
- Unit Map
- Progress Build**
- Getting Ready to Teach
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- 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

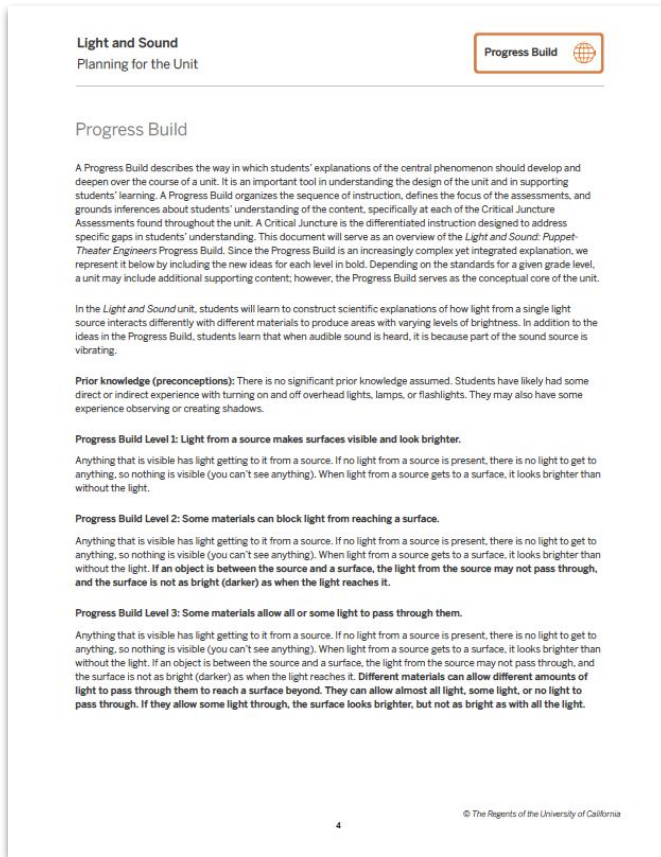
Printable Resources

- Article Compilation
- Coherence Flowchart
- Investigation Notebook
- NGSS Information for Parents and Guardians
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Offline Preparation

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

Offline Guide



Light and Sound

Planning for the Unit

Progress Build

Progress Build

A Progress Build describes the way in which students' explanations of the central phenomenon should develop and deepen over the course of a unit. It is an important tool in understanding the design of the unit and in supporting students' learning. A Progress Build organizes the sequence of instruction, defines the focus of the assessments, and grounds inferences about students' understanding of the content, specifically at each of the Critical Juncture Assessments found throughout the unit. A Critical Juncture is the differentiated instruction designed to address specific gaps in students' understanding. This document will serve as an overview of the *Light and Sound: Puppet-Theater Engineers* Progress Build. Since the Progress Build is an increasingly complex yet integrated explanation, we represent it below by including the new ideas for each level in bold. Depending on the standards for a given grade level, a unit may include additional supporting content; however, the Progress Build serves as the conceptual core of the unit.

In the *Light and Sound* unit, students will learn to construct scientific explanations of how light from a single light source interacts differently with different materials to produce areas with varying levels of brightness. In addition to the ideas in the Progress Build, students learn that when audible sound is heard, it is because part of the sound source is vibrating.

Prior knowledge (preconceptions): There is no significant prior knowledge assumed. Students have likely had some direct or indirect experience with turning on and off overhead lights, lamps, or flashlights. They may also have some experience observing or creating shadows.

Progress Build Level 1: Light from a source makes surfaces visible and look brighter.

Anything that is visible has light getting to it from a source. If no light from a source is present, there is no light to get to anything, so nothing is visible (you can't see anything). When light from a source gets to a surface, it looks brighter than without the light.

Progress Build Level 2: Some materials can block light from reaching a surface.

Anything that is visible has light getting to it from a source. If no light from a source is present, there is no light to get to anything, so nothing is visible (you can't see anything). When light from a source gets to a surface, it looks brighter than without the light. If an object is between the source and a surface, the light from the source may not pass through, and the surface is not as bright (darker) as when the light reaches it.

Progress Build Level 3: Some materials allow all or some light to pass through them.

Anything that is visible has light getting to it from a source. If no light from a source is present, there is no light to get to anything, so nothing is visible (you can't see anything). When light from a source gets to a surface, it looks brighter than without the light. If an object is between the source and a surface, the light from the source may not pass through, and the surface is not as bright (darker) as when the light reaches it. **Different materials can allow different amounts of light to pass through them to reach a surface beyond. They can allow almost all light, some light, or no light to pass through. If they allow some light through, the surface looks brighter, but not as bright as with all the light.**

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Share your thinking!

After reading the Progress Build, what are your ideas about the prompt:

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

Guided Unit Internalization	
Part 1: Unit-level Internalization	
Unit title: Light and Sound	
What is the phenomenon students are investigating in your unit?	
Puppet show scenes have brighter and darker areas.	
Unit Question:	Student role:
How do we make different parts of a surface brighter or darker?	Light and sound engineers
By the end of the unit, students figure out ...	
...how to design and explain puppet show scene with a dark area, a bright area, and a medium-bright area.	
What science ideas do students need to figure out in order to explain the phenomenon?	

Light and Sound Planning for the Unit	Progress Build
Progress Build	
<p>A Progress Build describes the way in which students' explanations of the central phenomenon should develop and deepen over the course of a unit. It is an important tool in understanding the design of the unit and in supporting students' learning. A Progress Build organizes the sequence of instruction, defines the focus of the assessments, and grounds inferences about students' understanding of the content, specifically at each of the Critical Juncture Assessments found throughout the unit. A Critical Juncture is the differentiated instruction designed to address specific gaps in students' understanding. This document will serve as an overview of the Light and Sound Puppet Theater Engineers Progress Build. Since the Progress Build is an increasingly complex yet integrated exploration, we represent it below by including the new ideas for each level in bold. Depending on the standards for a given grade level, a unit may include additional supporting content; however, the Progress Build serves as the conceptual core of the unit.</p> <p>In the Light and Sound unit, students will learn to construct scientific explanations of how light from a single light source interacts differently with different materials to produce areas with varying levels of brightness. In addition to the ideas in the Progress Build, students learn that when audible sound is heard, it is because part of the sound source is vibrating.</p> <p>Prior knowledge (preconceptions): There is no significant prior knowledge assumed. Students have likely had some direct or indirect experience with turning on and off overhead lights, lamps, or flashlights. They may also have some experience observing or creating shadows.</p> <p>Progress Build Level 1: Light from a source makes surfaces visible and look brighter.</p> <p>Anything that is visible has light getting to it from a source. If no light from a source is present, there is no light to get to anything, so nothing is visible (you can't see anything). When light from a source gets to a surface, it looks brighter than without the light.</p> <p>Progress Build Level 2: Some materials can block light from reaching a surface.</p> <p>Anything that is visible has light getting to it from a source. If no light from a source is present, there is no light to get to anything, so nothing is visible (you can't see anything). When light from a source gets to a surface, it looks brighter than without the light. If an object is between the source and a surface, the light from the source may not pass through, and the surface is not as bright (darker) as when the light reaches it.</p> <p>Progress Build Level 3: Some materials allow all or some light to pass through them.</p> <p>Anything that is visible has light getting to it from a source. If no light from a source is present, there is no light to get to anything, so nothing is visible (you can't see anything). When light from a source gets to a surface, it looks brighter than without the light. If an object is between the source and a surface, the light from the source may not pass through, and the surface is not as bright (darker) as when the light reaches it. Different materials can allow different amounts of light to pass through them to reach a surface beyond. They can allow almost all light, some light, or no light to pass through. If they allow some light through, the surface looks brighter, but not as bright as with all the light.</p>	

Guided Unit Internalization

Part 1: Unit-level internalization

Unit title: Light and Sound

What is the phenomenon students are investigating in your unit?

Puppet show scenes have brighter and darker areas.

Unit Question:

How do we make different parts of a surface brighter or darker?

Student role:

Light and sound engineers

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

...how to design and explain puppet show scene with a dark area, a bright area, and a medium-bright area.

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

- Light from a source makes surfaces visible and look brighter.
- Some materials can block light from reaching a surface.
- Some materials allow all or some light to pass through them.



Chapter-by-Chapter walkthrough



Chapter 1: How do we make brighter or darker areas?

5 Lessons



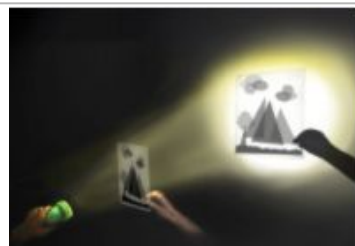
Chapter 2: How do we make a dark area in a bright puppet show scene?

5 Lessons



Chapter 3: How do we make bright, medium bright, and dark areas in a...

6 Lessons



Chapter 4: How do we design a sound source to go with a puppet show scene?

6 Lessons

Chapter 1:
Investigating
light sources

Chapters 2-3:
Investigating blocking materials
and designing puppet scenes

Chapter 4:
Investigating
sound

Lesson Overview Compilation

Pages 5-6

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ene?

Chapters at a Glance

Unit Question

How do we make different parts of a surface brighter or darker?

Chapter 1: How do we make brighter or darker areas?

Chapter Question

How do we make brighter or darker areas?

Investigation Questions

- What makes something look bright or dark? (1.2, 1.5)
- Where does the light come from that makes surfaces look bright or dark? (1.3, 1.4)
- What makes a surface look bright or dark? (1.5)

Key Concepts

- Light makes things look bright. (1.2)
- You need some light to see. (1.2)
- All light comes from a source. (1.4)
- When light from a source gets to a surface, the surface looks bright. (1.5)

Chapter 2: How do we make a dark area in a bright puppet show scene?

Chapter Question

How do we make a dark area in a bright puppet show scene?

Investigation Questions

- How do we stop light from getting to one part of a surface? (2.1, 2.2, 2.3)

Key Concepts

- When light is blocked by an object, the surface behind the object looks dark, and we call this a shadow. (2.2)
- When light is blocked by a material, the surface behind the material looks dark, and we call this a shadow. (2.3)

5

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ene?

(3.3)

ene?

s? (4.4)

the University of California

Unit internalization tools

Page 8

Part 2: Chapter internalization
Complete the tables below using information in the Lesson Overview Compilation.

	Chapter 1	Chapter 2
Important science concepts students learn include...		

	Chapter 3	Chapter 4
This chapter mostly focuses on...		
Important science concepts students learn include...		

8

Chapter internalization tool

Page 9

Part 3: Key routines and activities
As the presenter talks through the unit, use this table to make space about key routines and activities.

Key routine or activity	Notes

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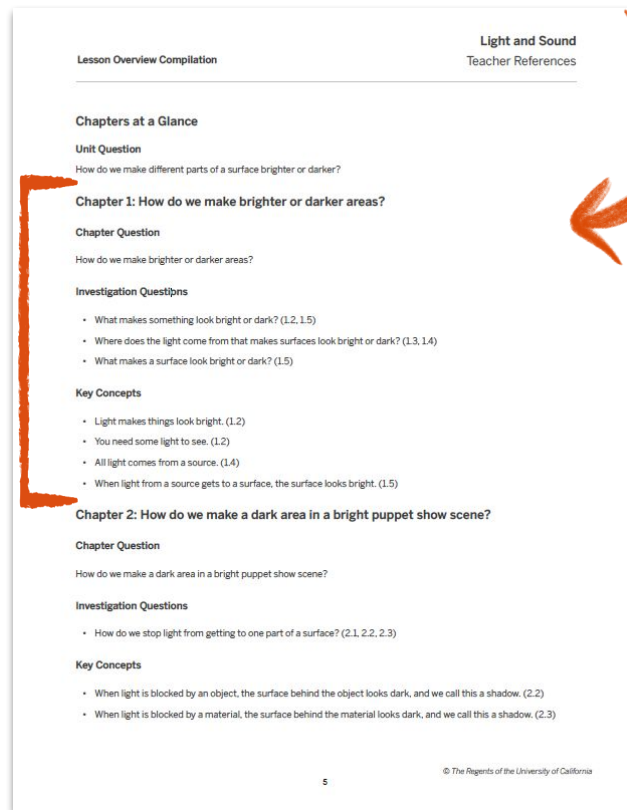
Key routines and activities tool

Chapter 1

Chapter Question: How do we make brighter or darker areas?

Key Concepts:

- Light makes things look bright.
- You need some light to see.
- All light comes from a source.
- When light from a source gets to a surface, the surface looks bright.



Part 2: Chapter internalization

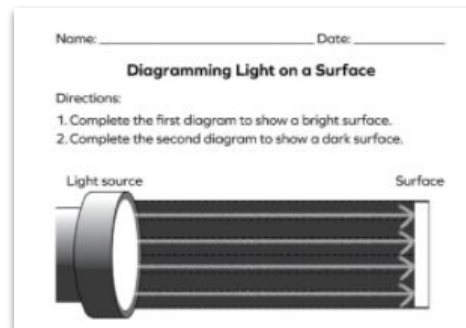
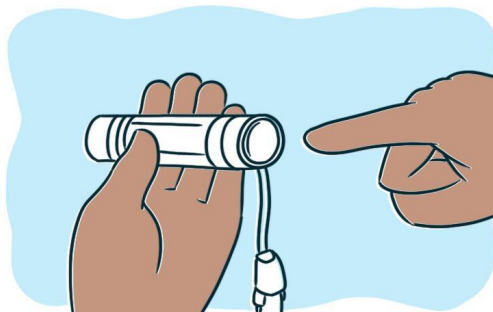
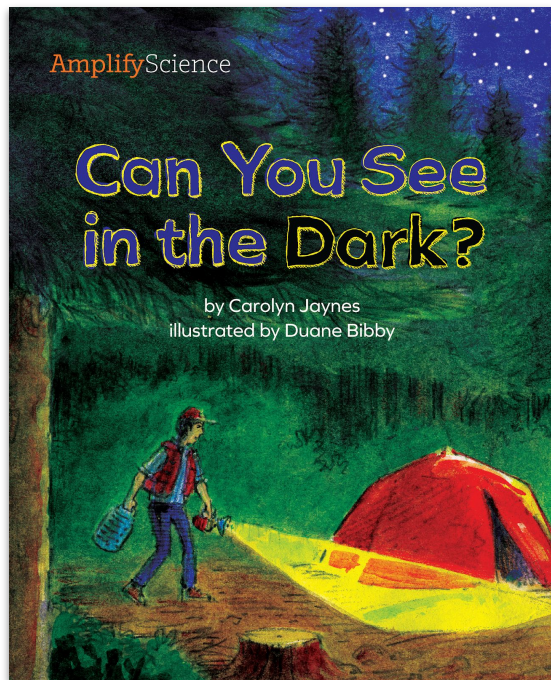
Complete the tables below using information in the Lesson Overview Compilation.

	Chapter 1	Chapter 2
This chapter mostly focuses on...	Making a surface bright or dark.	
Important science concepts students learn include...	You need light to see, and light comes from a source. Light from light sources makes surfaces look bright.	

	Chapter 3	Chapter 4
This chapter mostly focuses on...		
Important science concepts students learn include...		

Chapter 1

How do we make brighter or darker areas?



Work time

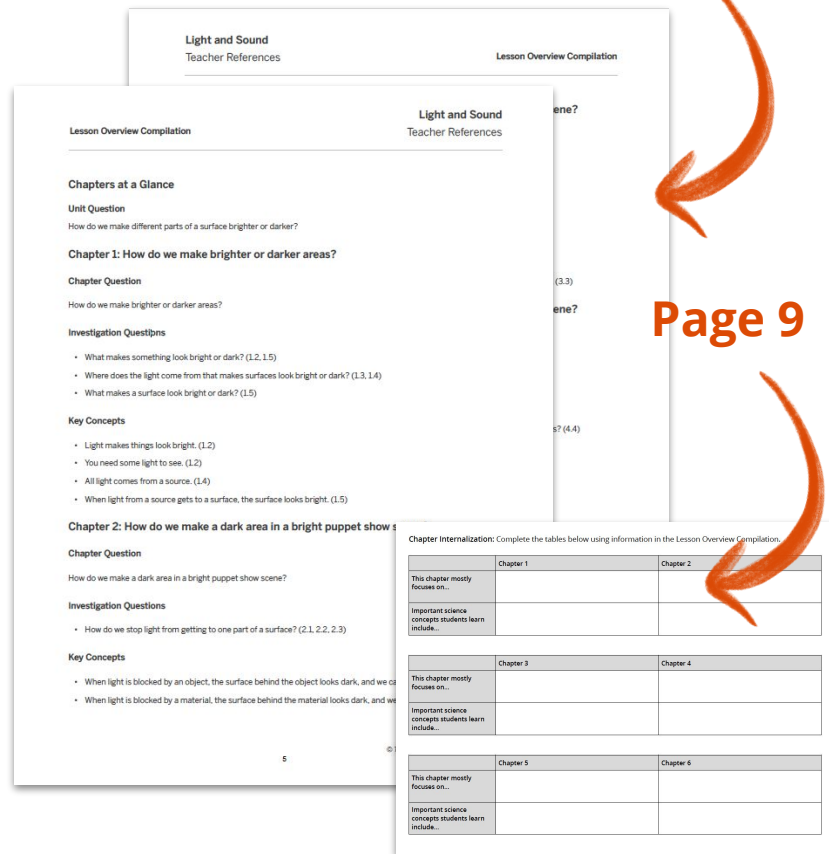
Read about Chapters 2-4

Use the Lesson Overview Compilation to get to know Chapters 2-4. Make notes in your Chapter internalization tool.

Please come back ready to share the key ideas students figure out in each chapter.

Pages 5-6

Page 9





Questions?

Unit internalization tools

Page 8

Part 2: Chapter internalization

Complete the tables below using information in the Lesson Overview Compilation.

	Chapter 1	Chapter 2
This chapter mostly focuses on...		
Important science concepts students learn include...		

	Chapter 3	Chapter 4
This chapter mostly focuses on...		
Important science concepts students learn include...		

8

Chapter internalization tool

Page 9

Part 3: Key routines and activities

As the presenter talks through the unit, use this table to make space about key routines and activities.

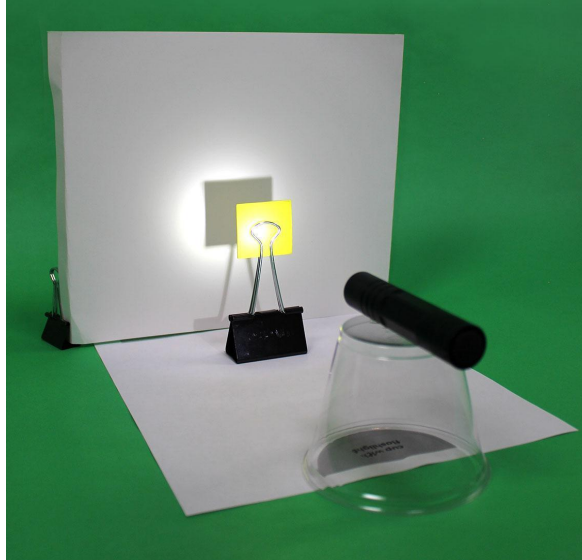
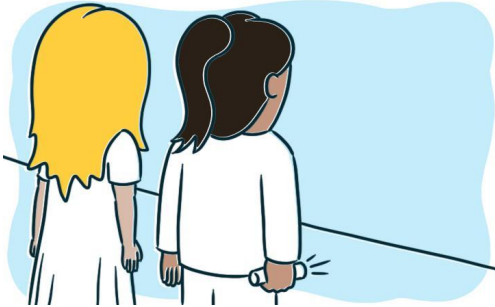
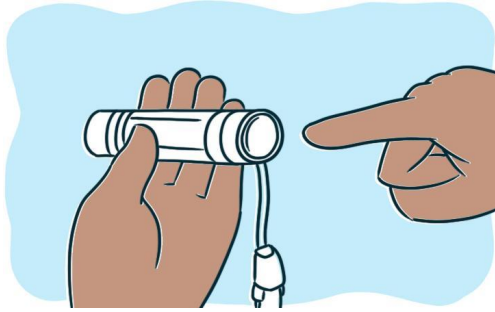
Routine or activity	Notes

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Key routines and activities tool

Investigating and testing designs with flashlights

Chapters 1-3



Diagramming light transmission

Chapters 1-3


Name: _____ Date: _____

Diagramming Light on a Surface

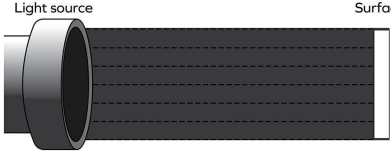
Directions:

1. Complete the first diagram to show a bright surface.
2. Complete the second diagram to show a dark surface.

Light source Surface



Light source Surface



6 Light and Sound—Lesson 1.5
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Chapter 1

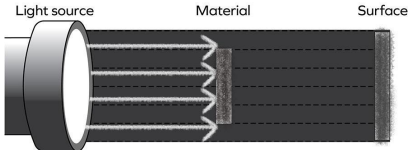
Name: _____ Date: _____

Diagramming How a Material Blocks Light

Directions:

1. Complete the diagram to show a dark area.

Light source Material Surface



cardboard

14 Light and Sound—Lesson 2.5
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Chapter 2

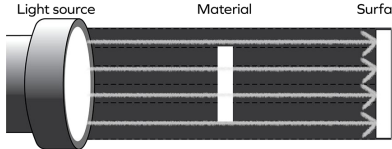
Name: _____ Date: _____

Diagramming Bright and Medium Bright Areas

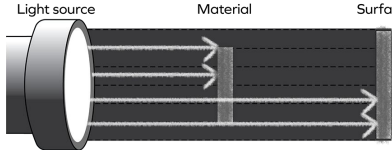
Directions:

1. Complete the first diagram to show a bright area.
2. Complete the second diagram to show a medium bright area.

Light source Material Surface



Light source Material Surface



Light and Sound—Lesson 3.3
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Chapter 3

Explanation Language Frames and Shared Writing

All K-1 units



Talk: Oral language development as a precursor to scientific writing

Write: Students contribute to end-of-chapter explanation through Shared Writing

Chapter-by-Chapter walkthrough



Chapter 1: How do we make brighter or darker areas?

5 Lessons



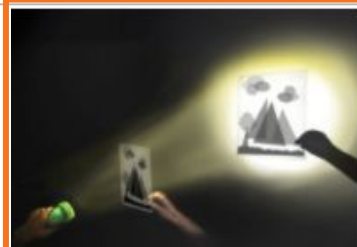
Chapter 2: How do we make a dark area in a bright puppet show scene?

5 Lessons



Chapter 3: How do we make bright, medium bright, and dark areas in a...

6 Lessons



Chapter 4: How do we design a sound source to go with a puppet show scene?

6 Lessons

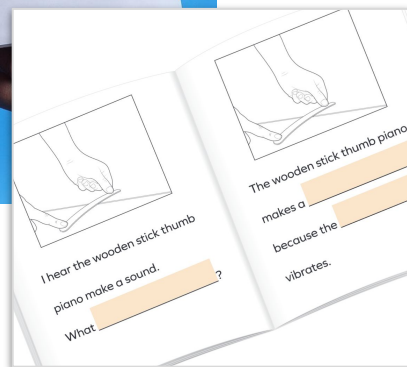
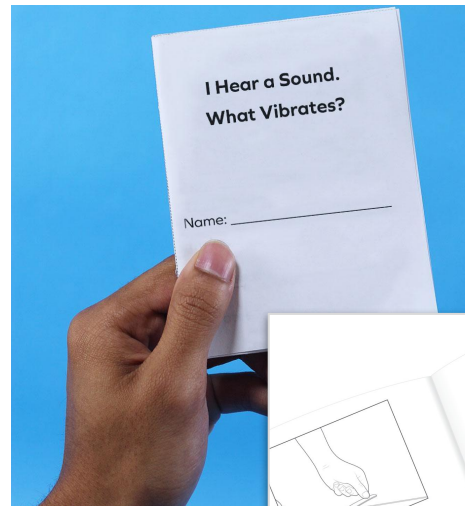
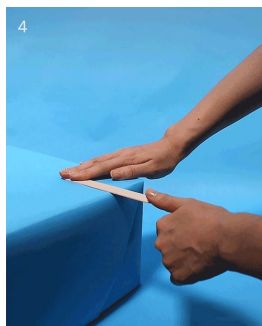
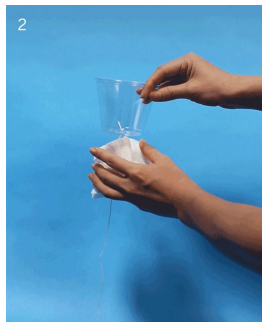
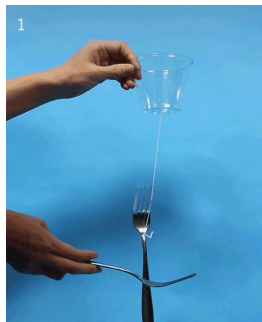
Chapter 1:
Investigating
light sources

Chapters 2-3:
Investigating blocking materials
and designing puppet scenes

Chapter 4:
Investigating
sound

Chapter 4

How do we design a sound source to go with a puppet show scene?

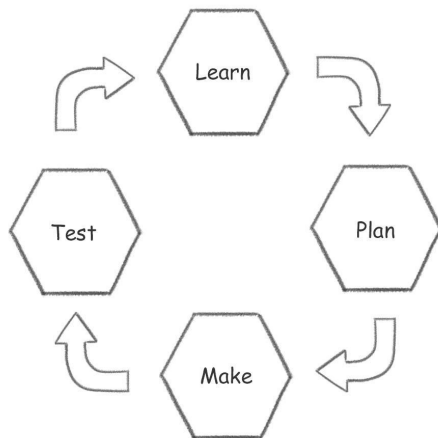


Chapter 4

How do we design a sound source to go with a puppet show scene?

What Engineers Do

Find out about a problem.
Design a solution.



Share to communicate and explain your ideas.

Name: _____ Date: _____

Designing My Sound Source

Directions:

1. Circle the kind of sound source you are going to make.
2. Complete the Design Goals Checklist.
3. Write your answers to the Reflection Questions on the next page.

weather animal action

Design Goals Checklist

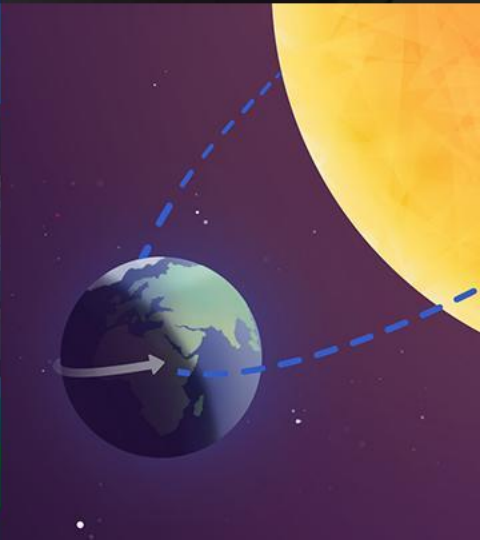
My sound source can make a sound that stops and starts. ☐ Yes ☐ No

My sound source can make short or long sounds. ☐ Yes ☐ No

My sound source can make quiet or loud sounds. ☐ Yes ☐ No



Questions?



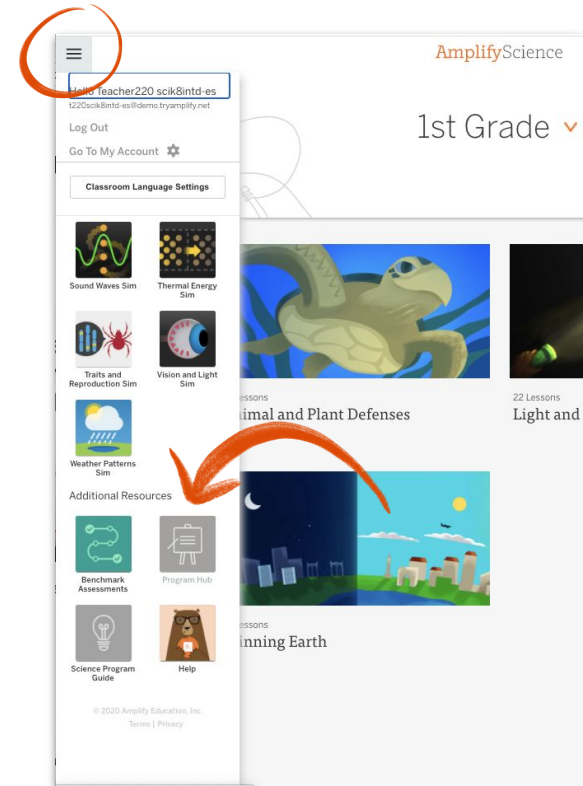
Plan for the day

- Framing the day
 - Instructional materials
 - Workshop goals
- Instructional approach: early childhood
- Unit internalization
- **Program Hub**
- Reflection and closing

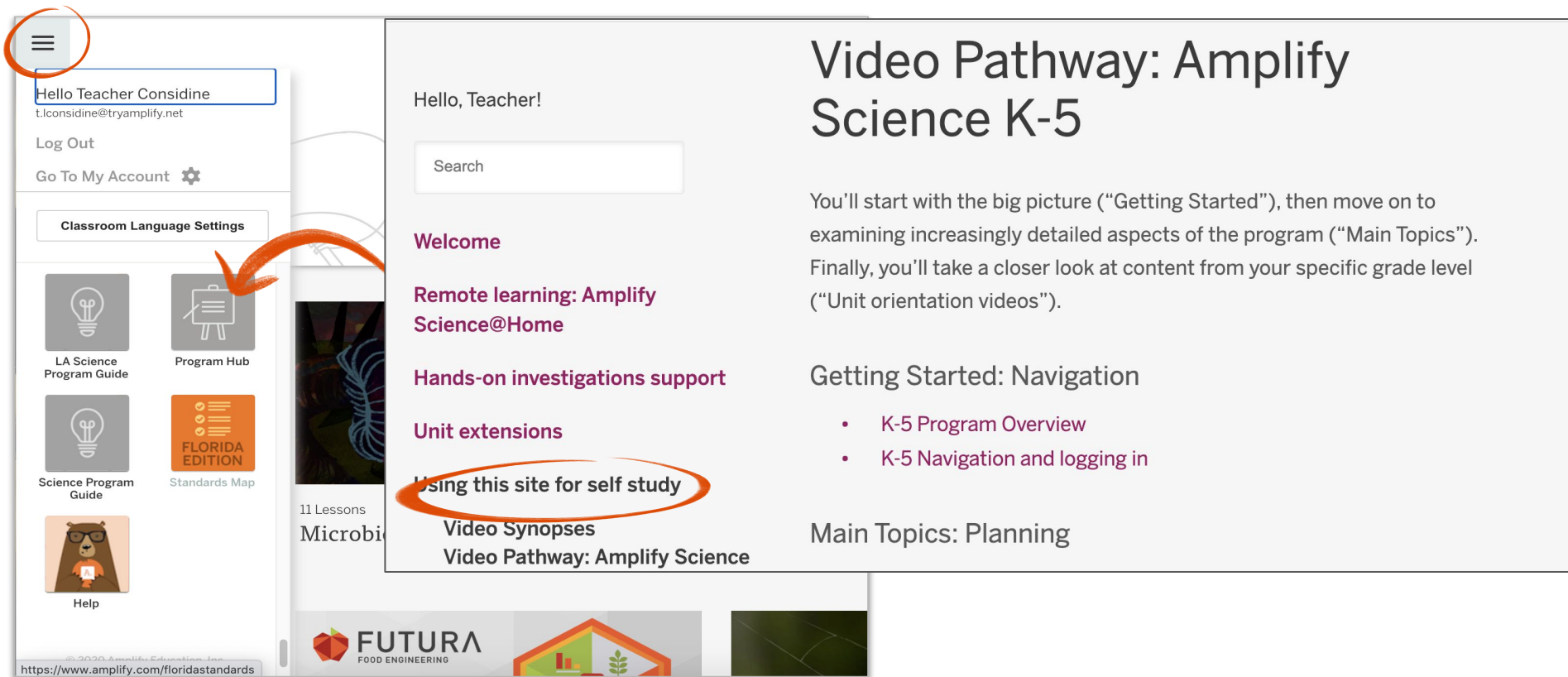
Accessing Amplify Science@Home

Amplify Science Program Hub

- New site containing Amplify Science@Home and additional PL resources
- Accessible via the Global Navigation menu



Program Hub: Self Study Resources



The screenshot shows the Amplify Science Program Hub interface. On the left is a sidebar menu with a hamburger icon circled in red. Below it is a user profile section for 'Hello Teacher Considine' with an email address, 'Log Out', and 'Go To My Account' with a gear icon. A 'Classroom Language Settings' button is also present. The main content area has a search bar and a 'Welcome' message. Below the welcome message are links for 'Remote learning: Amplify Science@Home', 'Hands-on investigations support', 'Unit extensions', and 'Using this site for self study' (which is circled in red). An orange arrow points from the 'Program Hub' icon in the sidebar to the 'Using this site for self study' link. The right side of the interface features a large heading 'Video Pathway: Amplify Science K-5', a paragraph about the learning pathway, and a 'Getting Started: Navigation' section with two bullet points: 'K-5 Program Overview' and 'K-5 Navigation and logging in'. At the bottom, there is a 'Main Topics: Planning' section and a footer with logos for FUTURA FOOD ENGINEERING and other partners.

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

FLORIDA EDITION

Standards Map

Help

11 Lessons

Microbi

Hello, Teacher!

Search

Video Pathway: Amplify Science K-5

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: Navigation

- K-5 Program Overview
- K-5 Navigation and logging in

Main Topics: Planning

Remote learning: Amplify Science@Home

Hands-on investigations support

Unit extensions

Using this site for self study

Video Synopses

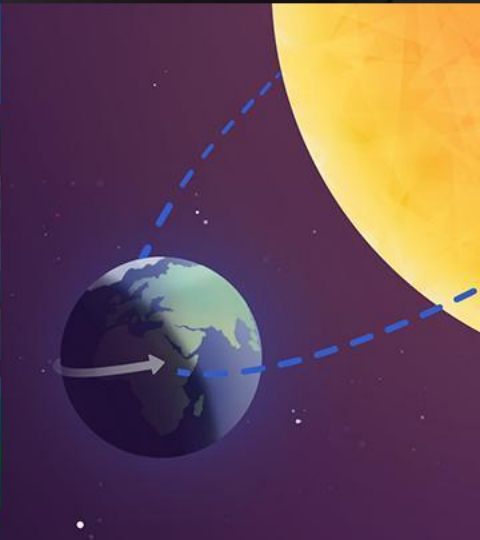
Video Pathway: Amplify Science

FUTURA FOOD ENGINEERING

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



Questions?



Plan for the day

- Framing the day
 - Instructional materials
 - Workshop goals
- Instructional approach: early childhood
- Unit internalization
- Program Hub
- **Reflection and closing**

Reflecting on our goals

Are you able to:

- Explain the science concepts students will figure out in your upcoming unit
- Describe the unit's anchor phenomenon and key activities students will use as evidence in explaining the phenomenon
- Navigate to @Home resources when they become available

e



2-Part Unit-specific PD

Part I: Today

Focus on learning the Light and Sound unit content and the early childhood instructional approach in Amplify Science

Part II: January

Planning to teach the unit remotely

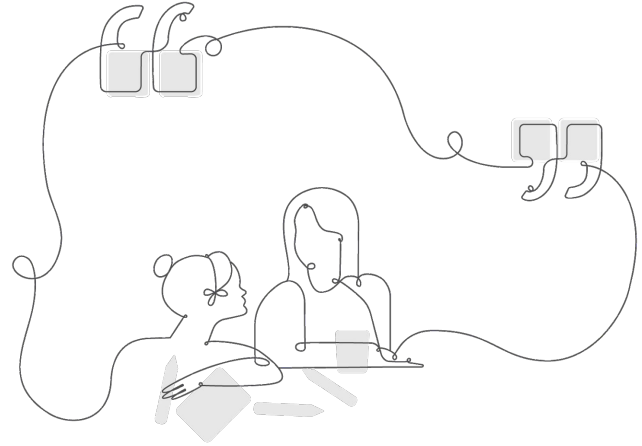


Upcoming LAUSD Office Hours

Monthly through January:

- Thursday, 12/10 (4-5pm)
- Thursday, 1/14 (4-5pm)

<http://bit.ly/TK-6OfficeHours>



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/>

Additional Amplify resources



Program Guide

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

<https://cascience.wpengine.com/content/welcome-k-8/integrated-model/>

Amplify Help

Find lots of advice and answers from the Amplify team.

my.amplify.com/help

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 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.

Thank you for your feedback!

Session: Unit Internalization Part I

Presenter: xx

