Amplify Science

Standard Curriculum Relaunch / Guided Planning

Grade 1, Unit 2: Light and Sound

Part 1

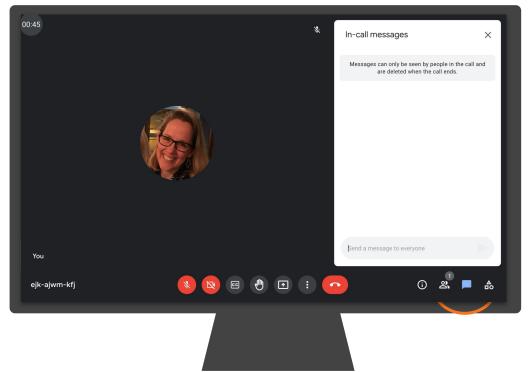
School/District Name: LAUSD Date: November, 2021 Presented by:



Ice Breaker!

Who do we have in the room today?

- Question 1: Which aspects of implementing the Amplify Science standard curriculum are you most excited or hopeful about?
- **Question 2:** What do you feel most hesitant about?



Amplify's Purpose Statement

Dear teachers,

You do a job that is nearly impossible and **utterly essential**.

We are in your corner – extending your reach, saving you time, and enhancing your understanding of each student.

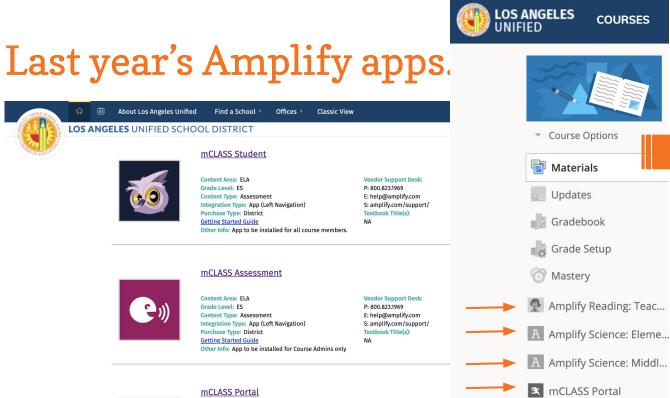
Thank you for working with us to craft rigorous and riveting learning experiences for your classroom.

We share your goal of inspiring all students to think deeply, creatively, and for themselves.

Sincerely, Amplify

Norms: Establishing a culture of learners

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







Vendor Support Desk: P: 800.823.1969

Content Area: ELA Grade Level: ES Content Type: Assessment Integration Type: App (Left Navigation) Purchase Type: District **Getting Started Guide** Other Info: App to be installed for Course Admins only E: help@amplify.com S: amplify.com/support/ Textbook Title(s): NA

- A Amplify Science: Middl...

 - mCLASS Student

This year's app(s).



LMS App Center

The LMS App Center provides a catalog of District-approved digital content and learning tools (including digital components of adopted textbooks) that are available for classroom teachers and students to access within the learning management system. Schoology,

For information on District-approval policies and procedures, please visit: udipp.lausd.net.

- To search the full list of digital learning tools, click "Submit".
- To search by Publisher Name or Textbook Title, type in a word associated to your adopted publisher, then click "Submit".
- To narrow your search with filters such as Content Area, Grade Level, or Content Type, select from the dropdown menu, then click "Submit".

To learn more about using the LMS App Center, please refer to the following video overview.

←Search Again

Amplify

Content Area: ELA Grade Level: ES Content Type: Supplemental Purchase Type: District and School **Getting Started Guide** Other Info: School licenses required

Vendor Support Desk: P: 800.823.1969 E: help@amplify.com S: amplify.com/support/ Textbook Title(s):

- mCLASS CKLA Amplify Reading
- Integration Type: App (Left Navigation) Amplify Science

NA

Fractions

Amplify Classwork



Integration Type: App (Left Navigation) Purchase Type: District and School

Vendor Support Desk: P: 800.823.1969 E: help@amplify.com S: amplify.com/support/ Textbook Title(s): NΔ

Starts With amplify **Grade Sync for MS Science** All All All Starts With

All Amplify Products



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my.amplify.com

Amplify. MY ACCOUNT ADMIN REPORTS LAUNCH PROGRAMS 💯 TERIN NGO 🔕

(i) mCLASS Educators: To view or make changes to your account go to mclass.amplify.com.

Hi, Terin



Programs & Licenses

Account Settings

Help Center 🗹



CKLA Hub

Reading K-5



CKLA Resource Site



mCLASS Assessment

Science

mCLASS Reporting



Reading 6-8

Vocabulary













Amplify. 13

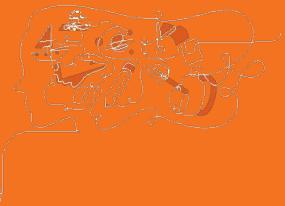
Join Amplify Science Schoology Group

To join Amplify Science Schoology ES Group: W4PK-W466-63F5B



Part 1:

Amplify Science Standard Curriculum Relaunch



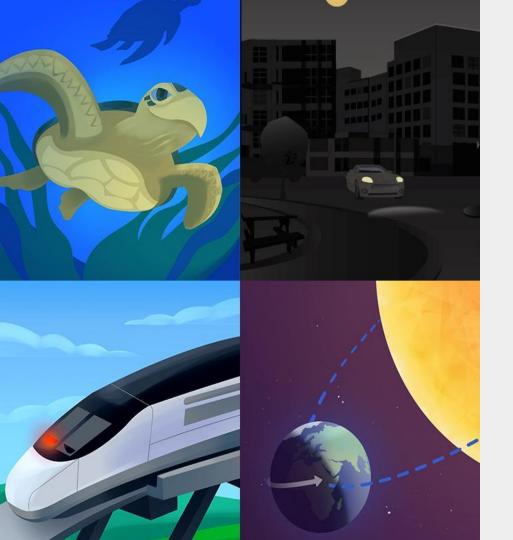


Overarching goals

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

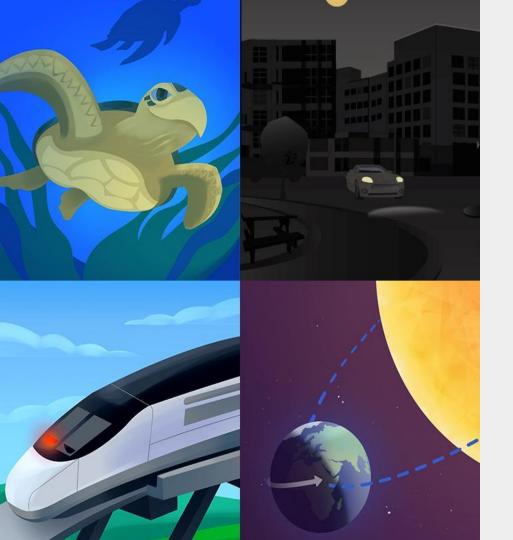
- Navigate the full Amplify Science standard curriculum.
- Understand the program's phenomenon-based approach.
- Apply the program essentials to prepare to teach.^Q





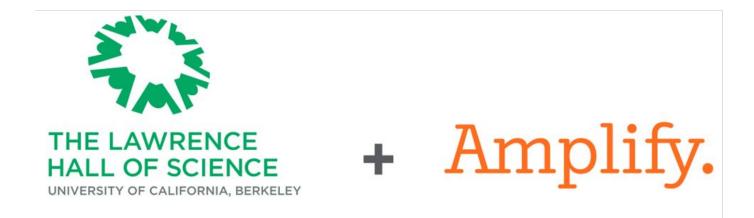
Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Program Essentials
- Closing



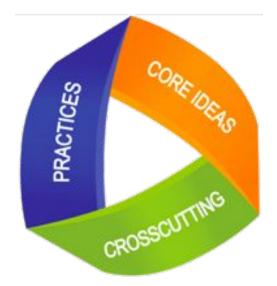
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Amplify Science

Next Generation Science Standards



Disciplinary Core Ideas

What students figure out

How students figure out the science **Science and Engineering Practices**

The habits of thinking that help

Crosscutting Concepts

students organize information

Course curriculum structure

Grade K	Grade 1	Grade 2	
 Needs of Plants and Animals Pushes and Pulls Sunlight and Weather 	Animal and Plant DefensesLight and SoundSpinning Earth	 Plant and Animal Relationships Properties of Materials Changing Landforms 	Key takeaways:
			 There are 22 lessons per unit
Grade 3	Grade 4	Grade 5	 Lessons at grades K-1
Balancing Forces	Energy Conversions	Patterns of Earth and Sky	are 45
Inheritance and Traits	Vision and Light	Modeling Matter	minutes
Environments and Survival	Earth's Features	The Earth System	long
Weather and Climate	 Waves, Energy, and Information 	Ecosystem Restoration	

Year at a Glance: Grade 1



Animal and Plant Defenses

Domain: Life Science

Unit type: Modeling

Student role: Marine Scientist



Light and Sound



Spinning Earth

Domain: Physical Science

Unit type: Engineering Design

Student role: Light and Sound Engineer

Domain: Earth and Space Science

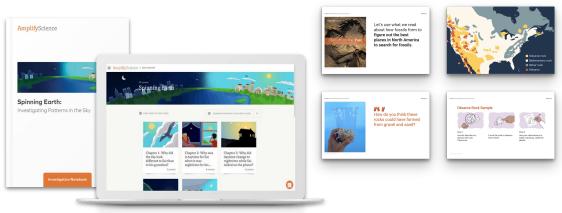
Unit type: Investigation

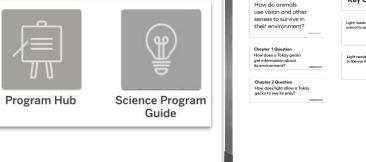
Student role: Sky Scientist

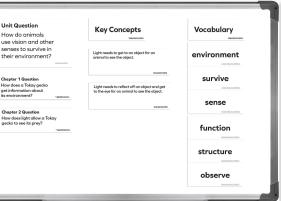
K-5 Program components

Teacher materials

- Teacher's Guide (print and digital)
- Classroom Slides
- Classroom wall materials
- Embedded assessments
- Program Guide
- Program Hub
- Amplify Help Site







K-5 Program components Student materials

- Hands-on materials
- Investigation Notebooks (print and digital)
- Student books
- Digital Applications

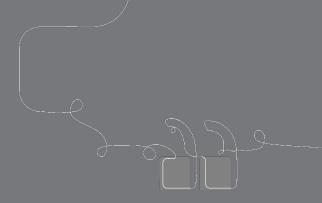


K-5 Program components Classroom kits



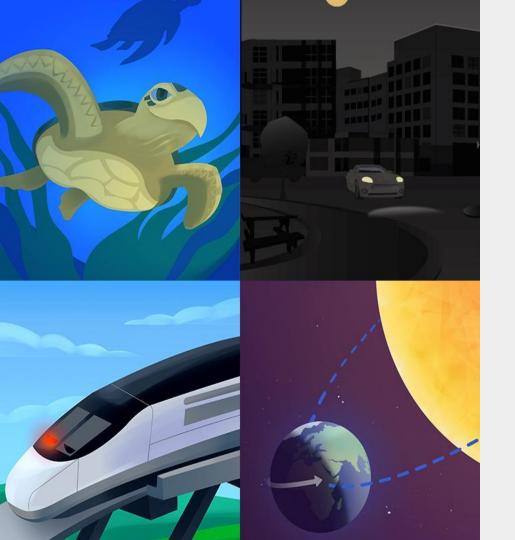
Classroom kits

Built for a class of 36 students, with consumables for two years



Questions?





Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Program Essentials
- Closing

Next Generation Science Standards Phenomenon-based learning and teaching

A scientific phenomenon is an **observable event** that occurs in the universe that we can use science ideas to explain or predict.

Comparing topics and phenomena

Topic-based	Phenomenon-based
Chemical reactions	There's a reddish-brown substance in a town's tap water.

Next Generation Science Standards How might learning be different?

Topic-based	Phenomenon-based	
Chemical reactions	There's a reddish-brown substance in a town's tap water.	
Electric circuits	A flashlight won't turn on, even though it used to work.	
Natural selection	A population of newts has become more poisonous over time.	

Comparing topics and phenomena A shift in science instruction

from learning about

(like a student)



to figuring out

(like a scientist)

Amplify Science Approach

Introduce a **phenomenon** and a related problem

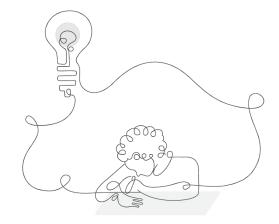
Collect **evidence** from multiple sources Build increasingly complex explanations **Apply** knowledge to solve a different problem

M

Previewing the unit Introducing the phenomenon

Amplify Science units are designed around complex phenomena that drives student learning through the unit.

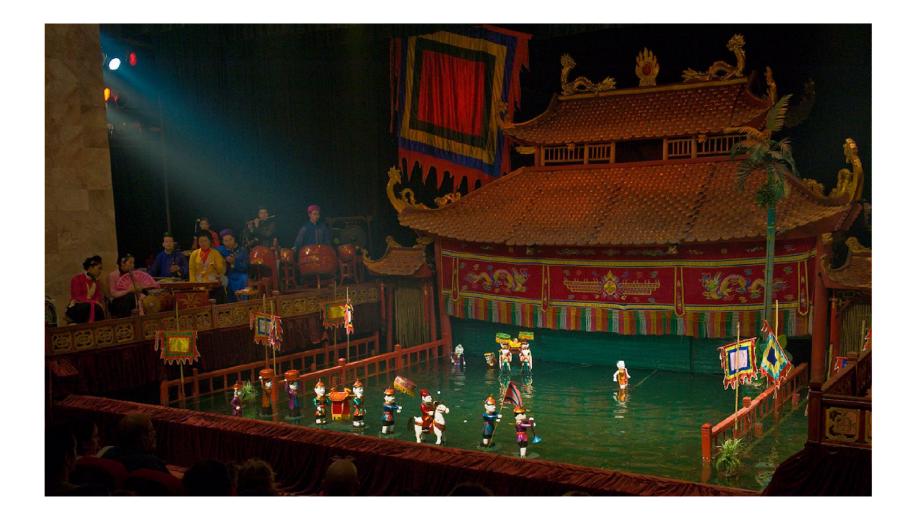
Pay attention to the phenomenon, or observable event, students will figure out in your unit.

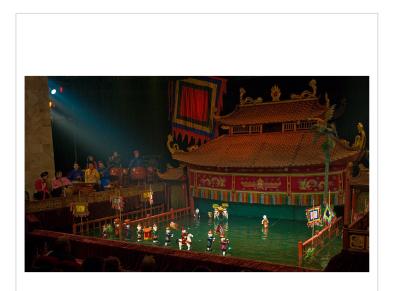


A **puppet-theater company** has come to us with a **problem** that they think we can **solve** by using **light and sound**.

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.



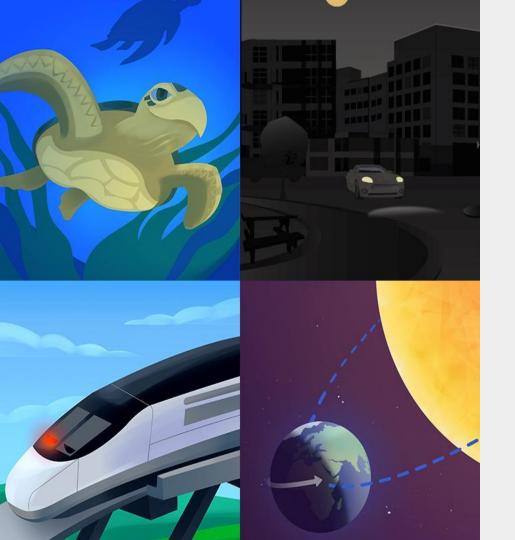
In order to help the puppet-theater company solve its problem, we will work as **light and sound engineers**.

Engineers are people who **make things** to solve problems.

Amplify Science Anchoring phenomenon

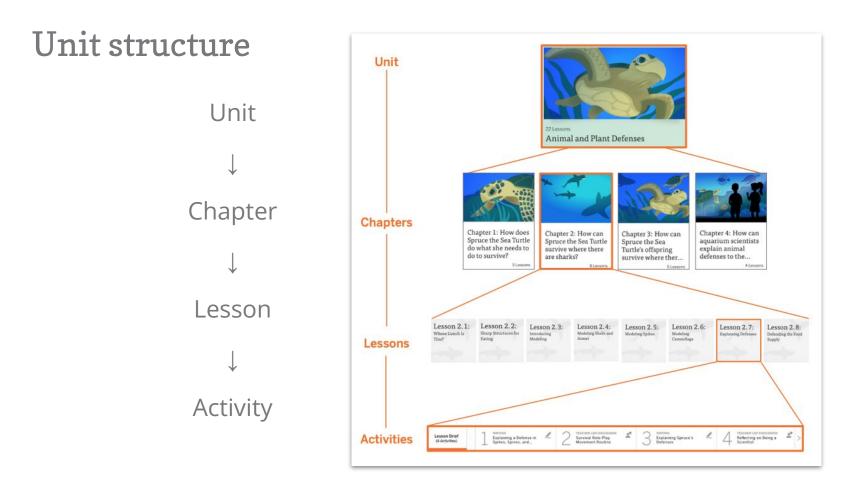
- Complex and rich
- Drives learning through a whole unit
- Specific and observable
- Relatable at students' developmental level



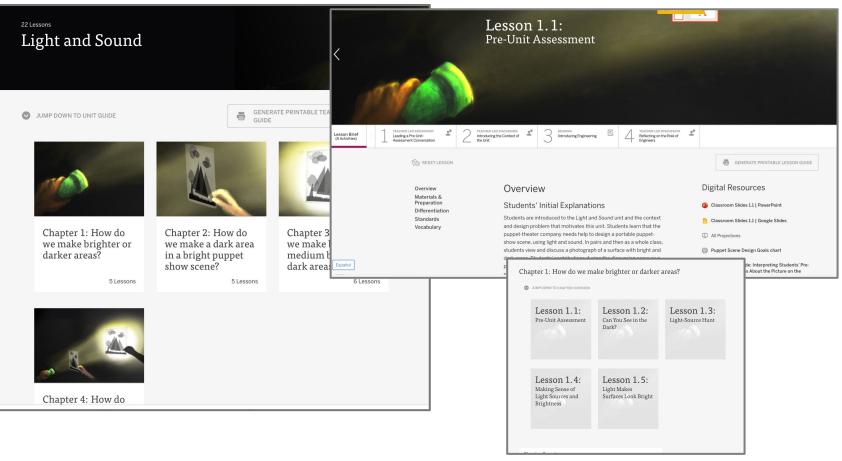


Plan for the day: Part 1

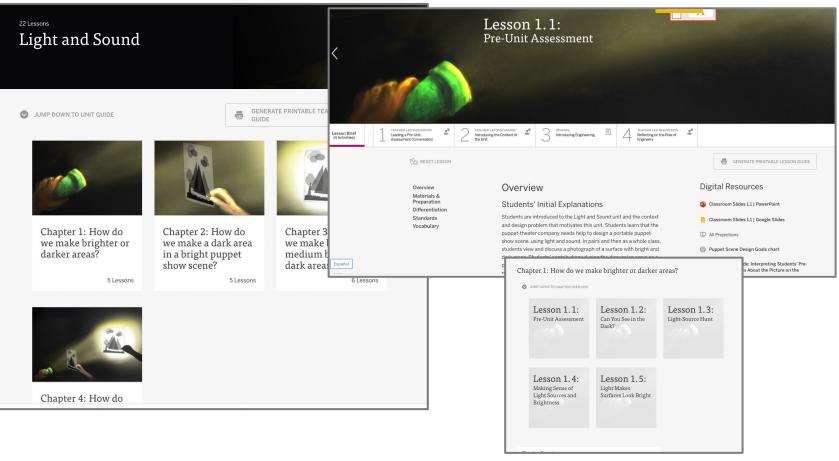
- Introduction and Framing
- Phenomenon-based Instruction
- Program Essentials
- Closing



Let's Go Live!



Explore the Essentials



Navigation summary

- 1. Select your first unit
 - a. You are now on the Unit Landing Page.

2. Select JUMP DOWN TO UNIT GUIDE.

a. Or scroll down the page to *Planning for the Unit* and *Teacher References*





Key Unit Guide Documents for Planning

Planning for the Unit	Printable Resources
Unit Overview	✓
Unit Map	✓
Progress Build	✓ Interview State St
Getting Ready to Teach	✓ Investigation Notebook
Materials and Preparation	✓ Image Multi-Language Glossary
Science Background	✓ Image: VGSS Information for Parents and Guardians
Standards at a Glance	∽
Teacher References	Print Materials (11" x 17")
Lesson Overview Compilation	~
Standards and Goals	Offline Preparation
3-D Statements	Teaching without reliable classroom internet? Prepare unit and lesson materials for offline access.
Assessment System	 materials for online access.
Embedded Formative Assessments	✓ Offline Guide
Books in This Unit	~
Apps in This Unit	~
Flextensions in This Unit	~

Unit Title:

Light and Sound

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]	
What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
Unit Question:	Relationship between the Unit Phenomenon and Unit Question:
By the end of the unit, students figure out	
How do students engage with three-dimensional learning to figure out the ph	enomenon/real-world problem in your unit?

Unit Title:

Light and Sound

Overview

Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]	
What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
Unit Question:	Relationship between the Unit Phenomenon and Unit
Suggested resource: • Unit Overview / Unit Map/ Coherence Flowchart	Question:
How do students engage with three-dimensional learning to figure out the ph	nenomenon/real-world problem in your unit?

Unit Title:

Light and Sound

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

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Unit Title:

Light and Sound

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
How can we use light and sound to design shadow scenery and sound effects for a puppet theatre	Light and Sound Engineers
Jnit Question:	Relationship between the Unit Phenomenon and Unit Question:
By the end of the unit, students figure out Suggested resource: • Lesson Overview Compilation / Unit Overview	nenomenon/real-world problem in your unit?

Unit Title:

Light and Sound

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in	Student Role:
How can we use light and sound to design shadow scenery and sound effects for a puppet theatre	Light and Sound Engineers
Jnit Question:	Relationship between the Unit Phenomenon and Unit
How do we make different parts of a surface brighter and darker?	Through participating in the experience of this unit, students will have multiple opportunities to interact with, observe and talk about light and sound.
By the end of the unit, students figure out Suggested resource:	
Lesson Overview	
Compilation / Unit Overview	

Unit Title:

Light and Sound

	Charlenst De las
What is the phenomenon/real-world problem students are investigating in your unit? How can we use light and sound to design shadow scenery and sound effects for a puppet theatre	Student Role: Light and Sound Engineers
Unit Question:	Relationship between the Unit Phenomenon and Unit
How do we make different parts of a surface brighter and darker?	Ouestion: Through participating in the experience of this unit, students will have multiple opportunities to interact with, observe and talk about light and sound.
By the end of the unit, students figure out	
By the end of the unit, students figure out How do students engage with three-dimensional learning to figure out the p	ohenomenon/real-world problem in your unit?

Unit Title:

Light and Sound

resource:

Unit Map

Overview [Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements] What is the phenomenon/real-world problem students are investigating in Student Role: vour unit? How can we use light and sound to design shadow scenery and sound effects for a puppet Light and Sound Engineers theatre Relationship between the Unit Phenomenon and Unit Unit Question: **Ouestion:** Through participating in the experience of this How do we make different parts of a surface unit, students will have multiple opportunities to brighter and darker? interact with, observe and talk about light and sound By the end of the unit, students figure out... Different materials can allow different amounts of light to pass through them to reach the surface How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit? Suggested Try to summarize what

the students figure out

at the end of the unit.

Unit Title:

Light and Sound

Overview [Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]		
What is the phenomenon/real-world problem students are investigating in	Student Role:	
How can we use light and sound to design shadow scenery and sound effects for a puppet theatre	Light and Sound Engineers	
Unit Question:	Relationship between the Unit Phenomenon and Unit	
How do we make different parts of a surface brighter and darker?	Ouestion: Through participating in the experience of this unit, students will have multiple opportunities to interact with, observe and talk about light and sound.	
By the end of the unit, students figure out		
Different materials can allow different amounts of light surface	to pass through them to reach the	
How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit?		

Unit Title:

Light and Sound

What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
How can we use light and sound to design shadow scenery and sound effects for a puppet theatre	Light and Sound Engineers
Unit Question:	Relationship between the Unit Phenomenon and Unit
How do we make different parts of a surface brighter and darker?	Ouestion: Through participating in the experience of this unit, students will have multiple opportunities to interact with, observe and talk about light and sound.
By the end of Suggested resource:	Sound.
• 3D Statements	o pass through them to reach the
How do students engage men an ee annensional rearrang to ngore out one pr	nenomenon/real-world problem in your unit?

Unit Title:

Light and Sound

What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
How can we use light and sound to design shadow scenery and sound effects for a puppet theatre	Light and Sound Engineers
Unit Question:	Relationship between the Unit Phenomenon and Unit
How do we make different parts of a surface brighter and darker?	Question: Through participating in the experience of this unit, students will have multiple opportunities to interact with, observe and talk about light and sound.
By the end of Suggested resource:	
• 3D Statements	o pass through them to reach the
How do students engage war and a since since since some some some some some some some som	nenomenon/real-world problem in your unit?

Students investigate and construct explanations about how light and sound can be used to create solutions for a puppet theatre company. Students apply what they learn to in order to design solutions ti create shadow scenery and sound effects for a puppet theatre show.

Unit Title:

Light and Sound

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

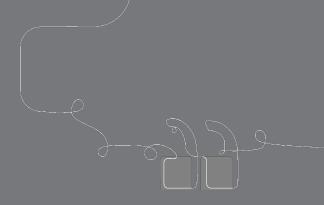
What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:
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Different materials can allow different amounts of ligh surface	t to pass through them to reach the
How do students engage with three-dimensional learning to figure out the	phenomenon/real-world problem in your unit?
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Navigation Temperature Check

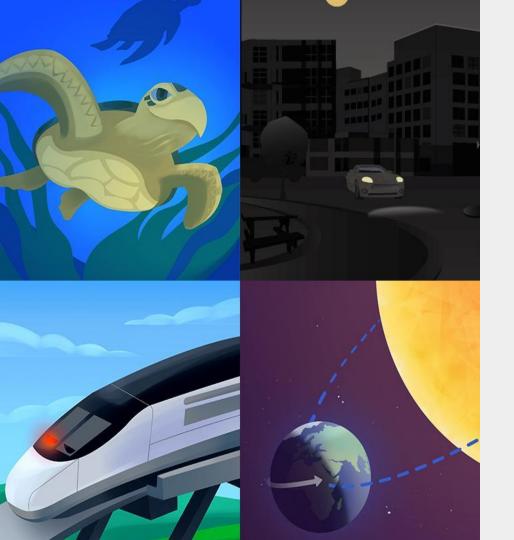
Rate yourself on your comfort level accessing Amplify Science materials and navigating a digital curriculum.

- 1 = Extremely Uncomfortable
- 2 = Uncomfortable
- 3 = Mild
- 4 = Comfortable
- 5 = Extremely Comfortable









Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Program Essentials

Closing

Closing reflection

Based on our work in Part 1, share:

Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

Additional resources

Welcome, caregivers!

We hope you enjoy learning more about Amplify Science and what students are learning in science this year.

Para acceder a este sitio en español haga clic aquí.

Amplify welcomes you and your learner to the Science program for the new school year. We are very excited to









Caregivers

LAUSD Micrositehttps://amplify.com/lausd-science

Welcome to Amplify Science!

This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK-8.

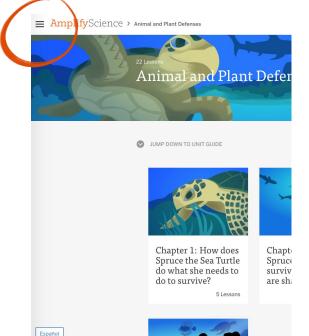
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark
 Advance Crosswalk
- Instructional guidance for a Responsive Relaunch of Amplify Science in 21-22

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

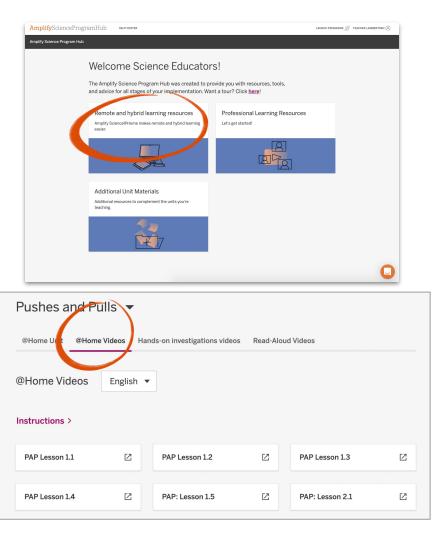


Program Hub

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







Additional resources and ongoing support

Customer Care

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



help@amplify.com





Amplify Chat



Please provide feedback!

Presenter name:

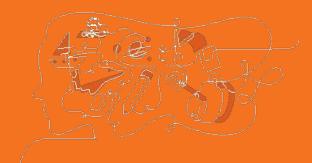
Workshop title:

Part 1: Relaunching the Standard Curriculum Part 2: Guided Planning (Planning for a Lesson) Modality:

Remote



End of Part 1





Break

10:00 - 10:30





Amplify Science

Standard Curriculum Relaunch /

Guided Planning

Grade 1: Light and Sound

Part 2

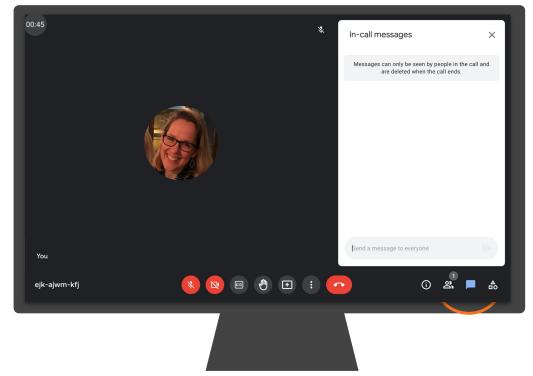
School/District Name: LAUSD Date:, Presented by:



Ice Breaker!

Who do we have in the room today?

• Question: Now that we have gone through Part 1, which aspects of Amplify Science do you feel more comfortable with or have a greater understanding of?



Amplify's Purpose Statement

Dear teachers,

You do a job that is nearly impossible and **utterly essential**.

We are in your corner – extending your reach, saving you time, and enhancing your understanding of each student.

Thank you for working with us to craft rigorous and riveting learning experiences for your classroom.

We share your goal of inspiring all students to think deeply, creatively, and for themselves.

Sincerely, Amplify

Norms: Establishing a culture of learners

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

Part 2: Guided Planning (for a lesson)



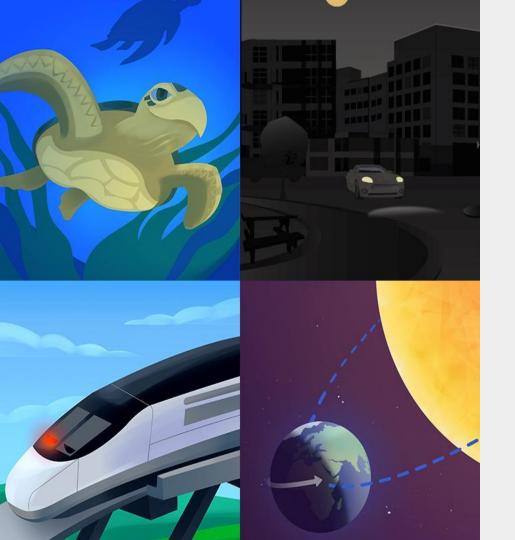


Overarching goals

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

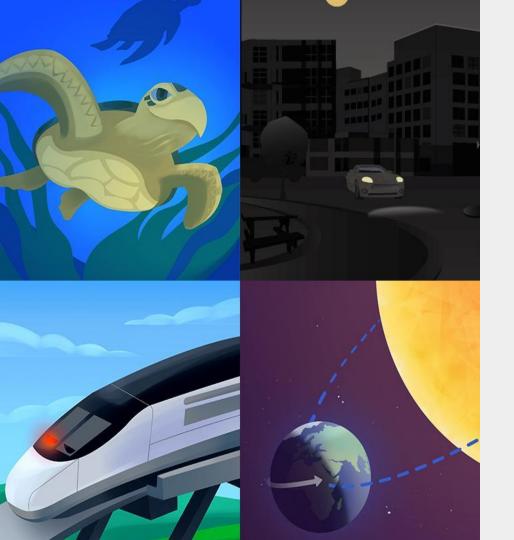
- Navigate the Amplify Science curriculum.
- Describe what teaching and learning look like in Amplify Science.
- Apply the program essentials to prepare to teach.





Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing



Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

Beginning the Unit

The first lesson of every Unit is a pre-unit assessment.

apter 1: How do we m	ake brighter or darker	areas?
JUMP DOWN TO CHAPTER OVERVIEW		
Lesson 1.1: Pre-Unit Assessment	Lesson 1.2: Can You See in the Dark?	Lesson 1.3: Light-Source Hunt
Lesson 1.4: Making Sense of Light Sources and Brightness	Lesson 1.5: Light Makes Surfaces Look Bright	

Light and Sound Family Connection



Light and Sound Family Connections Letter

Dear Families,

In science class, we are working as light and sound engineers to help a puppet-theater company design scenes for a puppet show. We'll be working to answer the question, *How do we make different parts of a surface brighter or darker*?

Sharing some of your own ideas, connections, expertise, or stories related to what we will be learning about can help prepare students for their work in science class. It can help students see that what we study in science is connected to their lives, families, and communities.

Use the following questions to think about your personal connections to students' science learning, then share them with your student.

- What does our work in science make you think of?
- Do you have any memories, stories, or experiences about something related to what we will be investigating?
- What have you heard or learned about these topics?
- What do you wonder?

Di	gital Resources
0	Classroom Slides 1.1 PowerPoint
	Classroom Slides 1.1 Google Slides
► ★	All Projections
25	Puppet Scene Design Goals chart
PDF	Assessment Guide: Interpreting Students' Pr Unit Explanations About the Picture on the Wall
POF	Investigation Notebook
POF	Questioning Strategies for Grades K-1
麗	Light and Sound Family Connections Letter
P	Crosscutting Concept Tracker
PDF	Eliciting and Leveraging Students' Prior Knowledge, Personal Experiences, and Cultur Backgrounds

Beginning the Unit

We will be looking at Chapter 1, Lesson 2 for our model lesson.

Chapter 1: How do we make brighter or darker areas? JUMP DOWN TO CHAPTER OVERVIEW Lesson 1.2: Lesson 1.1: Lesson 1.3: Pre-Unit Assessment Can You See in the Light-Source Hunt Dark? Lesson 1.4: Lesson 1.5: Making Sense of Light Makes Light Sources and Surfaces Look Bright Brightness

 \sim

Grade 1 | Light and Sound Lesson 1.2: Can You See in the Dark?

Activity 1 Reviewing Engineering Vocabulary



We use the word **problem** a lot. It has a lot of meanings.

The **puppet-theater company** has a problem. It is the type of problem **engineers** solve. When engineers talk about problems, they're talking about something someone wants or needs to do and cannot do.

What Engineers Do

This chart is a place where we can keep track of things that engineers do.

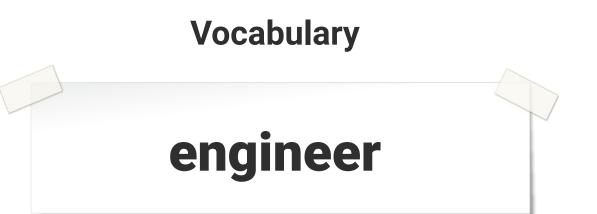
What Engineers Do

Find out about a problem.

One of the first things that engineers do is find out about a **problem**.

Let's talk more about the puppet-theater company's problem. When engineers hear about a problem, they try to make a solution.

What do you think the puppet-theater company needs you to do?



a person who makes something to solve a problem

Activity 2 Exploring How Dark It Can Get



Chapter 1 Question

How do we make brighter or darker areas?

Before we can make a **solution** for the puppet-theater company, we need to learn more about **light**.

In the last lesson, we saw pictures of different **light** and **dark** places.

Investigation Question:

What makes something look bright or dark?



Share **places** you know that are **very bright** and **places** you know that are **very dark**.

I wonder if you can see anything at all in a very dark place.

How could we make it **very dark** in our **classroom?**

Try to Make It Very Dark

1. Cup your hands over your eyes.

2. Try to look at something on your table, like a crayon.



Let's discuss trying to make it completely dark.

Did you make it completely dark? What did you do to make it completely dark?

Scientists and engineers look for **evidence**. Evidence is information that helps you figure out an answer to a question.

Trying to make it dark in our classroom gave us some evidence to answer our question.

We will gather more **evidence** from a video.





Let's **share** what we **noticed**.

Then I'll play the video a **second time**, and we will pay attention to when the cave looks **dark**, and when it looks **bright**.



What was happening when the cave looked dark and when it looked bright?

At first, the cave was **dark** and we could not see anything. When the person shined the **flashlight**, we could see things in the cave.

The video gave us more **evidence** about what makes something look bright or dark.

We will gather more evidence from a **book**.

Activity 3 Reading: Can You See in the Dark?



AmplifyScience

Can You See in the Dark?

by Carolyn Jaynes illustrated by Duane Bibby



We will read this book together and think about what we wonder.

We will **ask questions** and look in the book for **evidence** that helps us answer our questions. **Amplify**Science

Can You See in the Dark?

by Carolyn Jaynes illustrated by Duane Bibby



This title is already a **question**. It makes me wonder, are there places so dark that you cannot see?

Let's talk about the **illustration** on the cover.

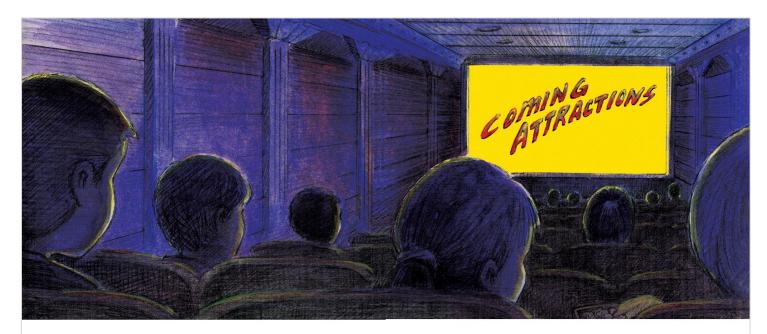
Can you see in the dark?

Do you need light to see?

To find the answer, you need **evidence**. And the only way to get the evidence you need is to find a place that's completely dark, with no light at all.

Think of some dark places. Can you see in those places? You can find your way to the bathroom after bedtime without turning on a light. You can see empty seats in a dark movie theater.

But are those places completely dark? Is there any light there at all?



To find out whether you need light to see, you have to find a place with no light—none, nada, zero, zilch.

Think of a movie theater. You walk in after the movie starts. It is hard to see, but you can still find a seat. You can see a little bit. Is there any light in the theater?

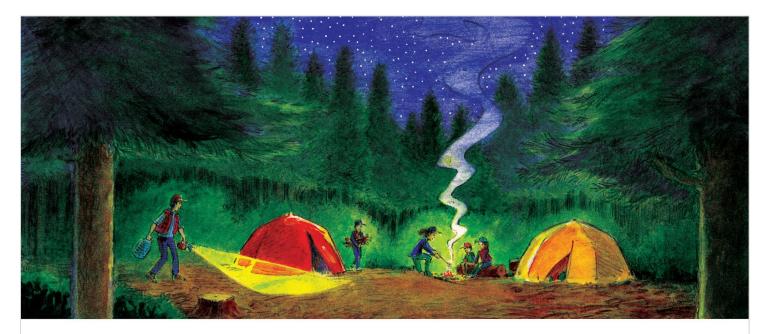


What do you **observe**? You may see little lightbulbs on the floor next to the seats. Behind you, you can see light coming from the movie **projector**. Light does not just float around. It has to come from somewhere. A place where light comes from is called a light **source**. The lightbulbs on the floor are a light source. The movie projector is also a light source.



Even though the movie theater seems dark, there is some light. The theater is not completely dark. You don't have the evidence you need yet. To find out whether you need light to see, you have to find someplace darker to observe.

You walk out of the theater. It is a rainy night. Is it completely dark? Can you find any light? On the walk home, you notice light from many sources: streetlights, car headlights, and the glowing sign at the gas station. You can see, but that is not evidence that you can see in the dark. It is nighttime, but it is not completely dark!



Think of a darker place. You can go camping in the middle of the woods, where there are no streetlights or headlights.

Is it completely dark? Can you find any light?

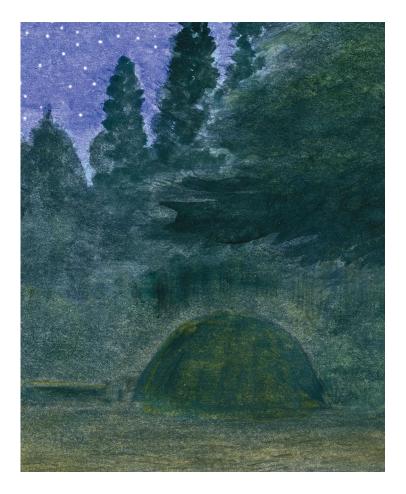
Yes, the campfire is a source of light! Your flashlight is a source of light, too.



When the fire goes out and you turn off the flashlight, it gets much darker.

Is it completely dark? Can you find any light?

Look up in the sky. What do you observe? Up there are thousands of light sources: the stars. Even in the middle of the forest at night, it is not completely dark. You cannot get the evidence you need to answer your question here.



What do you wonder about the **light** and the **dark**?

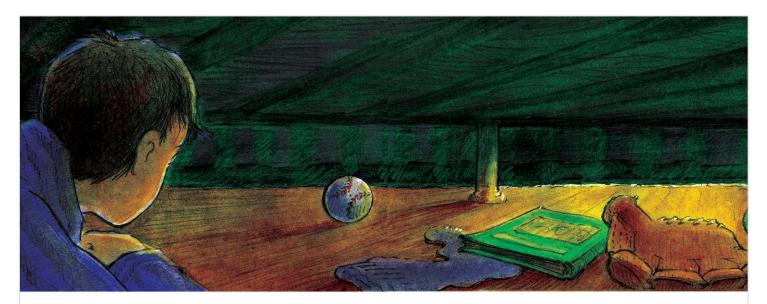


Back at home, your bedroom may seem completely dark when you turn off the lights.

Can you see? Maybe you see a glass of water on the table next to your bed. Maybe you can count the stripes on your bedspread.

Is it completely dark? Can you find any light?

You see some light from a streetlight and from the neighbors' house coming through the window. Your room is not completely dark after all. Being able to see in your bedroom at night is not really evidence that you can see in the dark.



Can you imagine a place that is completely dark, with no light from any source?

You crawl under your bed. You remember how dark it was under there when you played hide-and-seek.

Is it completely dark? Can you find any light?

In a few seconds, you start to see things. You can see a sock that has been missing for a month. Does this mean you can see in the dark?

You look around. Light from the neighbors' house and the streetlight outside your window is also getting under your bed. You have to find someplace darker.



You scramble into your closet and shut the door. "Yes," you think, "I found a place that is completely dark! No light is getting in here from any source!" You can just barely see your hand if you hold it in front of your face.

Is it completely dark? Can you find any light?

You notice a crack under the door, where light from outside is getting in. You still don't have the evidence you need. You still cannot prove whether or not you need light to see.



A few days later, you go on a field trip to a cave. The tour guide leads you into the cave. It is dark in here really dark.

Deep in the cave there is no light from the sun. This may be the perfect place to **test** whether you can see in the dark.

The tour guide is talking about how caves are formed. But you are wondering how dark the cave could get. You finally get a chance to ask. The tour guide says, "I'll show you. I'm going to turn off the lights for a minute."

She turns off the lights, and everything is black. You look around for sources of light, but you do not see any. In fact, you cannot see anything at all. Just to be sure, you wait and wait ... but you never see anything.

A smile crosses your face. None of your classmates can see the smile, even though they are standing right in front of you. Still, you know the smile is there because you can feel it. You finally have the evidence you need. You have found a place that is completely dark. There is no light from any source. It is completely dark, and you cannot see in the dark.

If you can see anything, it is because of light. You need light to see!

We have **evidence** that helps us figure out if you can see in the dark.

It was **completely dark** in the cave in the video, and it was completely dark in the cave we observed in the book.

There was **no light anywhere**.

Activity 4 Introducing the What We Know About Light Chart



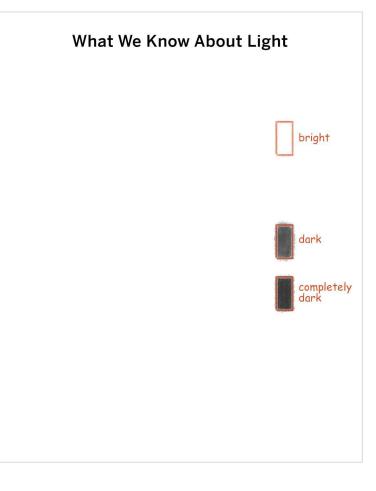
What We Know About Light

When scientists and engineers learn something new, their science knowledge changes.

We will use this **chart** to show what we learn.

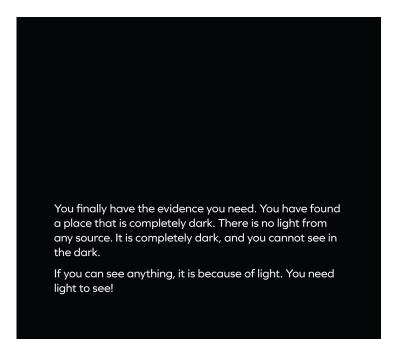
What We Know About Light

Let's talk about the different types of **places** we read about in the book.



Now the chart shows the three types of places. Let's think about our ideas.

What is the difference between **dark** and **completely dark**?



We read about needing light to see in *Can You See in the Dark?*

Investigation Question:

What makes something look bright or dark?

Key Concept

Light makes things look bright.

Key Concept

You need some light to see.

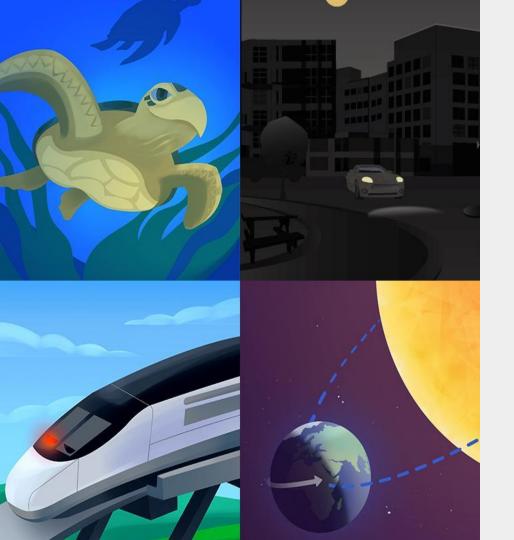
Lesson 1.2: Can You See in the Dark?

End of Lesson





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Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

Gathering evidence

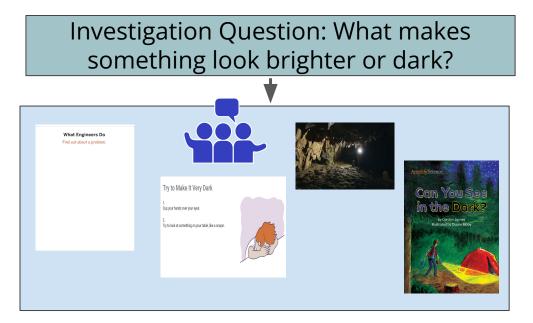
Light and Sound 1.2



What have students figured out so far?

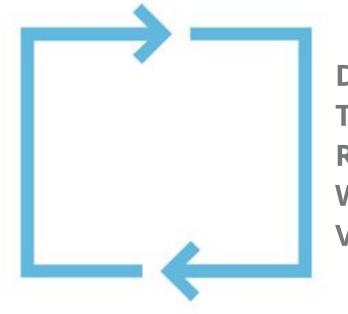
Evidence sources work together Investigating and discussing observations

How do these activities **work together** to support understanding of what makes something look brighter or dark?



Multimodal learning

Gathering evidence over multiple lessons

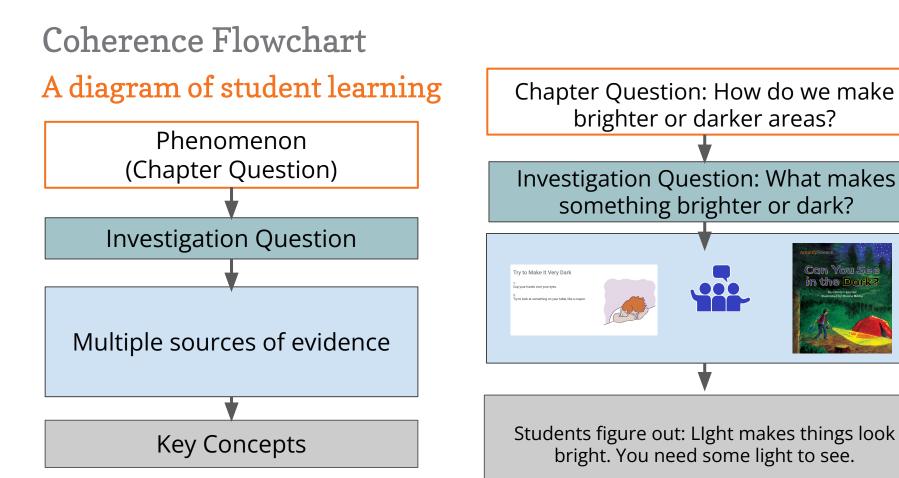


Do, Talk, Read, Write, Visualize

Evidence sources work together

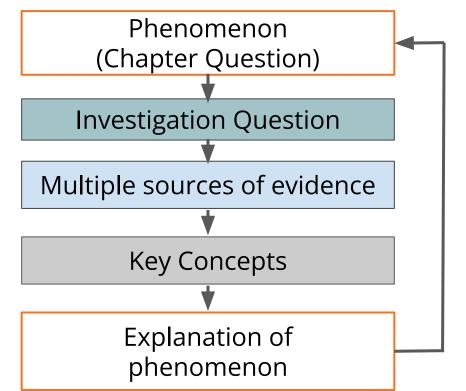
Teacher tip: Every evidence source plays an important role in student learning. Be sure to teach every activity in order!



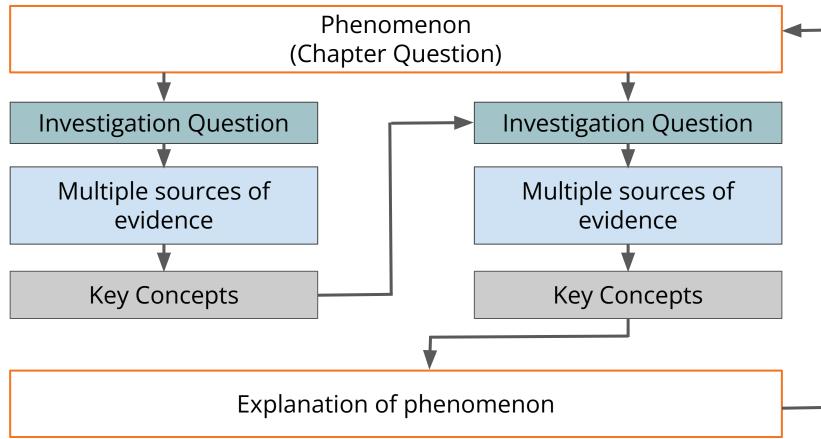


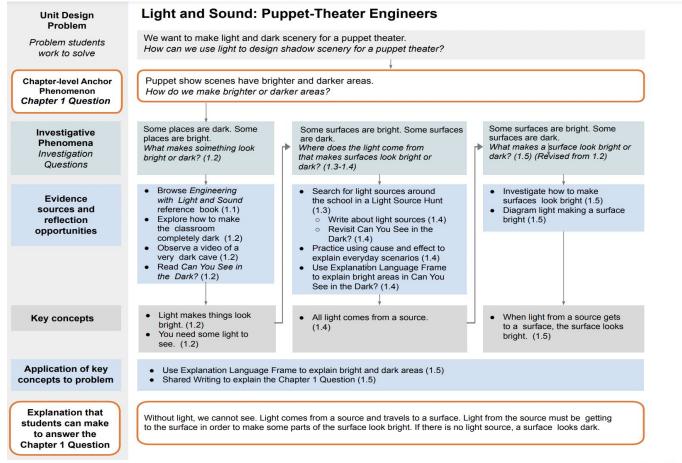
Coherence Flowchart

A diagram of student learning



Coherence Flowchart





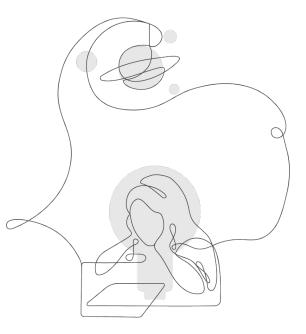
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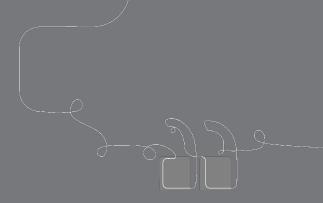
Amplify.

Explore the Coherence Flowchart

Skim the Chapter 1 Coherence Flowchart of your first unit.

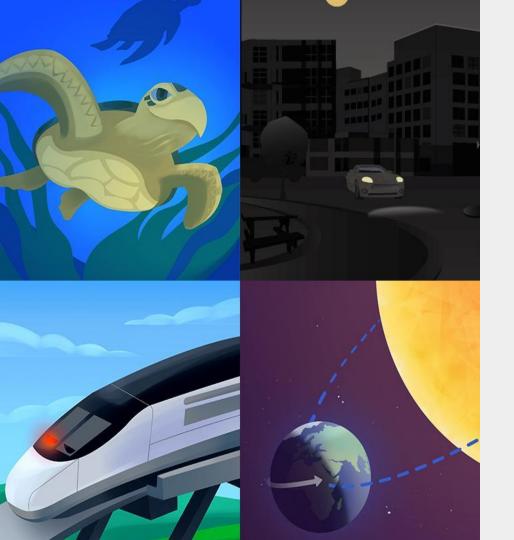
> How can the Coherence Flowchart serve you as a planning tool as you begin teaching Amplify Science?





Questions?

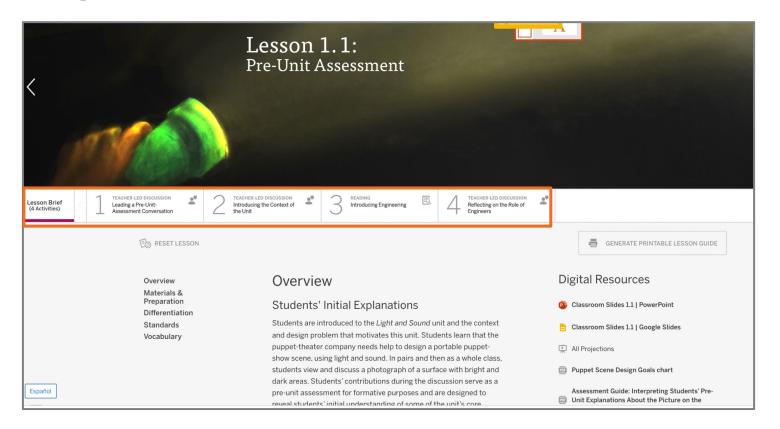




Plan for the day: Part 2

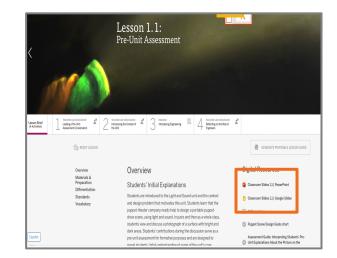
- Teaching and Learning in an Amplify Science Lesson
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- Closing

Navigate to the Lesson Brief



Preparing to teach Classroom Slides

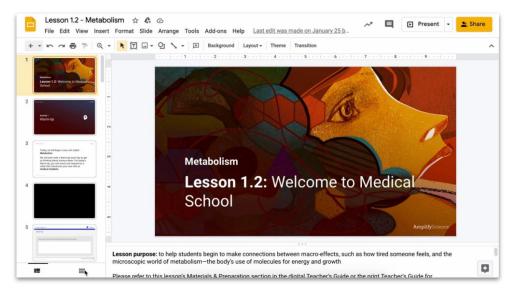
- Open the Classroom Slides under the Digital Resources.
- 2. Read through the Classroom Slides including the **presenter notes** to gain a better understanding of the lesson.
- 3. Consider:
 - What features of the Classroom Slides will support you in teaching this lesson?



Using Classroom Slides as a planning tool

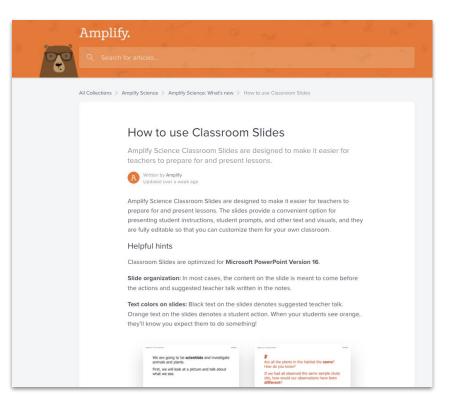
Teacher tip: Classroom Slides are a great visual summary of a lesson. Many teachers download and flip through a lesson's Classroom Slides deck to preview what happens in the lesson.

This is a useful first step for preparing to teach the lesson.



Teaching with Classroom Slides

This detailed guide on the Amplify Science Help Site includes tips for teaching with Classroom Slides and information about the different symbols and activity types you'll find in the slide deck.



4 Steps for Starting Your Lesson

- 1. Download Classroom Slides and review them.
- 2. Read the **Overview**.
- 3. Review the Materials & Preparation document.
- 4. Read the **Differentiation** document.

cher-LED DISCUSSION	2 HANDS-ON Exploring How Dark It Can V T Observing a Dark Place See 3 Reading: Can You See in the Dark?	TEACHER-LED DISCUSSION Introducing the What We Know About Light Chart
		GENERATE PRINTABLE LESSON GUIDE
Overview	Overview	Digital Resources
Materials & Preparation	Students begin learning about bright and dark places by exploring	Classroom Slides 1.2 PowerPoint
Differentiation Standards	them in firsthand and secondhand ways. First, they try to create a very dark space in the classroom. Next, they observe a video of a	Classroom Slides 1.2 Google Slides
Vocabulary	completely dark cave that is gradually illuminated by a flashlight.	Classroom Videos 1.2 Zip
	Then, the teacher reads a book to support students in thinking about dark and darker places. Students learn about asking questions to	Classroom Videos 1.2 Zip
	gather additional information while they read. The class begins to	What Engineers Do Chart: Completed
	create the What We Know About Light chart to record new understandings about light and dark. The purpose of this lesson is to	What We Know About Light Chart: Completed

Lesson	Activity Overview	
What is the purpose of this lesson? Access prior knowledge about rocks. Make observations of rocks.	Activity 1 (##min)	
What will students learn?	Activity 2 (##min)	
3-D Statement (identify SEP, CCC, and DCI):	Activity 3 (##min)	
Student Resources:	Activity 4 (##min)	
• The Regents of the University of California. All rights reserved.	Activity 5 (##min)	

Lesson <u>1.2</u>	Activity Overview	
What is the purpose of this lesson? The purpose of this lesson is to draw on students' previous experiences and to connect to their hands-on explorations and reading explorations to understand that most places, even those that seem dark, usually have some source of light and that you need this light to see.	Activity 1 (5 min)	Reviewing Engineering Vocabulary
What will students learn? •Light makes things look bright. •You need some light to see. •Science knowledge can change when new information is found.	Activity 2 (10 min)	Exploring How Dark It Can Get
3-D Statement (identify SEP, CCC, and DCI): Students first try to make the classroom completely dark (cause and effect) and then obtain and evaluate information from Can You See in the Dark?, a book that follows a child's effort to figure out whether people need light to see.	Activity 3 (5 min)	(Teacher Only) Observing a Dark Place
Student Resources: n/a	Activity 4 (15 min)	Reading: Can You See in the Dark?
Assessment Opportunities: On-The-Fly, Activity 3	Activity 5 (10 min)	Introducing the What We Know About Light Chart

Remember to plan for...

Student work:

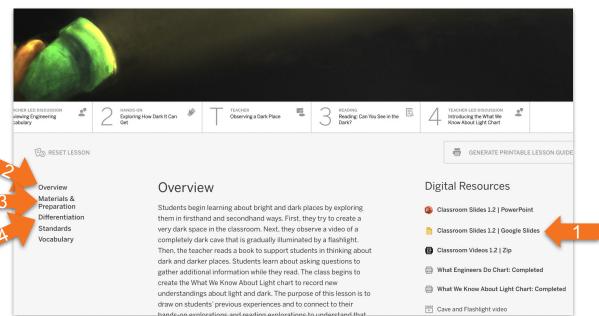
• How do you plan to collect evidence of student work?

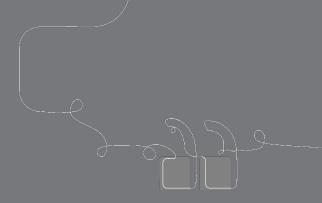
Differentiation:

• How do you plan to differentiate the lesson for diverse learners?

4 Steps for Starting Your Lesson

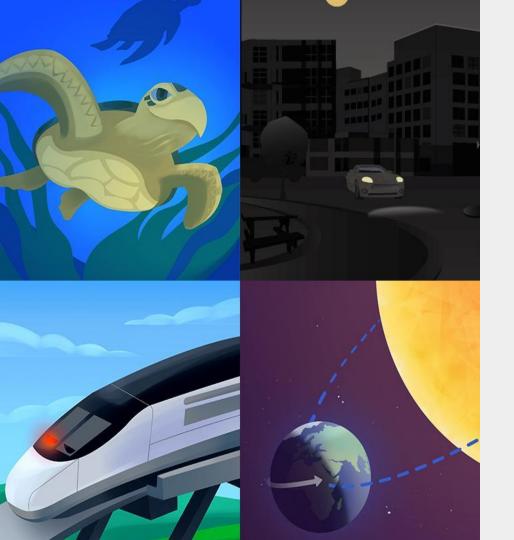
- 1. Download Classroom Slides and review them.
- 2. Read the **Overview**.
- 3. Review the Materials & Preparation document.
- Read the Differentiation document.
- 5. If you have time, navigate to **Lesson 1.3** and repeat steps 1-4.





Questions?





Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
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- Closing

Additional resources

Welcome, caregivers!

We hope you enjoy learning more about Amplify Science and what students are learning in science this year.

Para acceder a este sitio en español haga clic aquí.

Amplify welcomes you and your learner to the Science program for the new school year. We are very excited to









Caregivers

LAUSD Micrositehttps://amplify.com/lausd-science

Welcome to Amplify Science!

This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK-8.

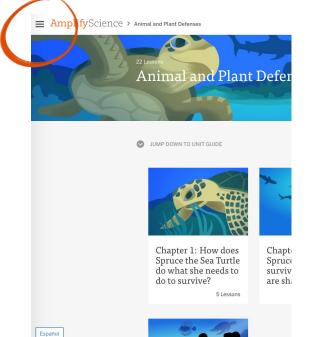
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark
 Advance Crosswalk
- Instructional guidance for a Responsive Relaunch of Amplify Science in 21-22

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

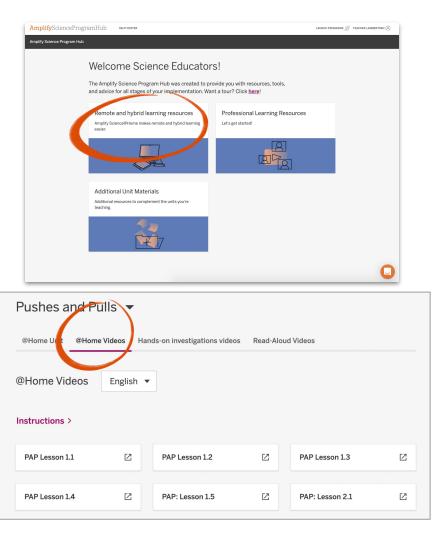


Program Hub

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







Overarching goals

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

- Navigate the Amplify Science curriculum.
- Describe what teaching and learning look like in Amplify Science.
- Apply the program essentials to prepare to teach.



Closing reflection

Based on our work today in Part 2, share:

Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

Additional resources and ongoing support

Customer Care

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



help@amplify.com





Amplify Chat



Please provide feedback!

Presenter name:

Workshop title:

Part 1: Relaunching the Standard Curriculum Part 2: Guided Planning (Planning for a Lesson) Modality:

Remote

