Unit 4: Communicating with Sound and Light WEEK 5 At a Glance

Weekly Question: How does light change?		
Texts		ds: radiant, electricity, direction ds: redirect, reverse, reflection bjects
Burning, - Alshie	Text Talk Day 1: "The Shiny Sculptures of Day 2: <i>All About Light</i> Day 3: <i>Keep the Lights Burning</i> Day 4: <i>Keep the Lights Burning</i> Day 5: <i>Keep the Lights Burning</i>	g, Abbie, Read 1 g, Abbie, Read 2
Mentor Texts	Shared Reading: "Shadow Rac Independent and Partner Rea Listening & Speaking: Talk, Dra <i>Moth</i>) Science Literacy: What is a ligh Vocabulary: Draw for Meaning	ding aw, Talk; Listen & Respond (<i>Oscar and the</i> nt beam?
Cocol Boan III Chocolate	Science and Engineering Lesson 1: Mirrors and Light Beams Lesson 2: Reflections	Studios Children continue investigating light with ongoing activities.
	Writing: Explanation Day 1: Individual Construction Day 2: Deconstruction and Re Day 3: Deconstruction and Re Day 4: Planning Day 5: Research	vision: Verbs

WEEK 5 Days 1 & 2

Vocabulary & Language

Weekly Words

Weekly Question	How does light change?
Language Objectives	I can talk with my classmates about words. (SL.1.1)
	I can connect words to my own real-life experiences. (L.5.1.c)
Vocabulary	Day 1
	 radiant: shining brightly electricity: a form of energy that makes things move and work direction: position in which a person or something moves or faces
	Day 2
	redirect : to change the direction of something reverse : to move into the opposite position or direction reflection : effect of light (or sound or heat) bouncing off an object
Materials and Preparation	 Week 5 Weekly Words cards chart paper Create the week's Weekly Words chart by writing out the Weekly Words and their definitions. Add icons, sketches, or images as needed.
Opening Day 1	Today we'll start a new list of Weekly Words. These words come from the books that we read and the big ideas from our new study, Communicating with Sound and Light. Today's words are radiant, electricity, and direction.

Day 2	Let's continue learning our words for this week. Today's words are redirect, reverse, and reflection .
Discussion Day 1	Follow the steps of the Weekly Words routine. Refer to the chart and explain each step as needed. Hold up the appropriate word card as each word is taught.
	radiant Elaboration: The sun produces a radiant light. This radiant light is so important in the winter season when our days are short.
	Think, Pair, Share prompt: What other sources can you describe that produce radiant light?
	electricity Elaboration: Smart phones work with batteries, but we use electricity to charge the batteries to make our phones work.
	Think, Pair, Share prompt: When else do we use electricity to make things move or work?
	direction Elaboration: When people drive, it is very helpful to have signs that indicate in which direction to go. The signs on this road indicate which lane to take to go in the direction of Logan Airport, or Winthrop and Chelsea.
	Think, Pair, Share prompt: In what direction do we face in order to leave this room? Right or left? Describe it to your partner.
Day 2	redirect Elaboration: When the sun is in our eyes, we can put up our hand to block it. If we turn on a lamp and it's too bright in our eyes, we might just move to a different place, or we might be able to redirect the light by turning it. We can't redirect the sun!
	Think, Pair, Share prompt: Think of two light sources: one you can redirect, and one you cannot. Tell your partner about them.

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	reverse Elaboration: Sometimes when we are trying to get somewhere, we make a mistake and pass the place where we were supposed to turn. In those cases, we reverse direction!
	Think, Pair, Share prompt: Can you think of a time when you reversed direction? Maybe you were playing a game, or trying to get somewhere. Describe that situation to your partner.
	reflection Elaboration: This picture could be confusing: we see the reflection of trees, bushes, and the sky in the water of this pond when the sun is shining above
	Think, Pair, Share prompt: When have you seen your reflection on a shiny surface? What did you notice about it?
Closing	This week, we're talking about how light can change. The words we're studying will help us to talk about the changes we observe and can produce.
Standards	 SL.1.1. Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. L.5.1.c Identify real-life connections between words and their use (e.g., note places at home that are cozy).
Ongoing assessment	How do children interact with new and familiar words? How do children respond when they discover an error in their understanding or use of a word? How flexible are they when confronted with new definitions? How do children talk with peers about new words—do they use gestures, substitute familiar words, dig for descriptions, tell stories? Make notes about children's familiarity with various kinds of words and the connections they make to specific words. Use this information to plan for embedded opportunities for teaching and reinforcing words.

Use of a strategy such as pulling equity (name) sticks supports the participation of all children. Even with this kind of strategy, some children will benefit from extra turns for verbal participation.
Maintaining a class vocabulary list will help track children's vocabulary growth over time.



Weekly Words U4 W5 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education





direction

redirect

https://www.frommers.com/blogs/passportable/blog_posts/boston-s-logan-airport-might-charge-y ou-to-drop-off-and-pick-up-passengers Photo

Photo credit Ana Vaisenstein

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reverse

reflection

tps://www.cio.com/article/3267066/why-steve-jobs-is-the-reverse-case-study-for-it-leadership.ht	

Weekly Words U4 W5

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Vocabulary & Language

Describe Objects

Weekly Question	How does light change?
Language Objective	I can use adjectives to describe objects. (L.1.1.e)
Vocabulary	 opaque: describing materials that do not allow light through translucent: describing materials that allow some light through transparent: describing materials that are clear and let light through classify: to assign to a class or category adjective: a word that describes a person, place, thing, or idea property: how an object looks, feels, sounds, or tastes
Materials and Preparation	 a collection of classroom objects, enough for each child to hold and describe one Describe and Classify Objects slides
Opening	Last week in Science you explored different objects, like aluminum foil, plastic spoons, and paper cups. You used these objects to explore light and shadows. You described the objects as opaque, translucent, and transparent. Today and tomorrow you will explore more objects. You will describe and classify them.
Discussion	Choose an object to describe. Have children quickly choose from the collection of classroom objects.
slide 2	We know that adjectives describe nouns. They answer the questions How many or much? What kind? What is it like? And Which ones? Whose?

slide 3	Now you will use at least two adjectives to describe the properties of your object. You might describe its texture using adjectives such as smooth, bumpy, or rough. You might describe its size using adjectives such as small, medium, or large. Or you might describe whether light shines through it, using words we learned in Science such as opaque, translucent, or transparent. You may also choose other adjectives to describe your object. Use this sentence frame to describe your object. For example, "This plastic spoon is smooth and opaque." In pairs, guide each child to show and describe their object, using two
	adjectives.
Closing	Today you used adjectives to describe objects. Tomorrow you will classify and describe one property of an object.
	Set these objects aside to use for the Day 4 lesson.
Standard	L.1.1.e Use frequently occurring adjectives.
Ongoing assessment	Reflect on the class discussion. Which adjectives do children use to describe their objects? Are their descriptions accurate?

Vocabulary & Language

Classify and Describe Objects

Weekly Question	How does light change?
Language Objective	I can classify objects by category and attribute. (L.5.1.b)
Vocabulary	adjective: a word that describes a person, place, thing, or idea classify: to assign to a class or category property: how an object looks, feels, sounds, or tastes opaque: describing materials that do not allow light through translucent: describing materials that allow some light through transparent: describing materials that are clear and let light through
Materials and Preparation	 Describe and Classify Objects slides, from Day 3 paper cup and plastic spoon (optional, or use slides 4-5) a collection of classroom objects, from Day 3
Opening	Yesterday you used adjectives to describe objects. Today you will classify objects by naming the categories they belong to and describing one of their properties.
Discussion slide 4	Let's try one together. This is a paper cup. We can classify the paper cup as a container. We can say, "A paper cup is a container that" What additional words can we use to describe this paper cup? [holds liquids, is opaque]
slide 5	Let's try another. This is a plastic spoon. How can we classify the plastic spoon? What type of object is it? [utensil, tool] We can say, "A plastic spoon is a [utensil/tool] that" What additional words can we use to describe this plastic spoon? [scoops,

Vocabulary & Language U4 W5 D4

	is opaque]
slide 6	Your turn! Choose an object—it can be the same one you chose yesterday, or something different.
	Use this sentence frame to classify and describe the object. Practice on your own; then tell your sentence to your partner.
Closing	Today you classified objects by naming the categories they belong to. Then you described one additional property of each object.
Standard	L.5.1.b Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).
Ongoing assessment	Reflect on the class discussion. Do children name accurate categories for their objects? What additional attributes do they use to describe their objects?

Vocabulary & Language

Carousel Brainstorm

Weekly Question	How does light change?
Language Objective	I can talk with my classmates about important vocabulary from our unit texts and big ideas. (SL.1.1)
Vocabulary	 radiant: shining brightly electricity: a form of energy that makes things move and work direction: position in which a person or something moves or faces redirect: to change the direction of something reverse: to move into the opposite position or direction reflection: effect of light (or sound or heat) bouncing off an object
Materials and Preparation	 chart paper, 4 pieces, with one of the Weekly Words in the center of each, set out around the classroom markers, one for each child timer or stopwatch
Opening	This week as we move through the Carousel Brainstorm, we'll think about our Weekly Words and about some of the things that happen at a market.
Key Activity	Show the vocabulary cards and review definitions for all of the Weekly Words, highlighting those selected for the Carousel Brainstorm. Talk briefly about some possibilities for recording understanding about one of the words. Direct each group to a particular paper and then begin the timer. Circulate as children work, noting their use and representation of each word.

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Closing	In the whole group, share the work from the papers, highlighting different ways of demonstrating word knowledge.
Standards	SL.1.1. Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
Ongoing assessment	As children work, circulate and take notes on the Carousel Brainstorm Assessment Tool to record children's understanding, misconception, and use of vocabulary words. Use these to plan for reteaching and reinforcement.
	Listen to children's conversations as they circulate. How do children participate? Review each sheet of chart paper. Do children's drawings and writing reflect an understanding of the vocabulary words?

Vocabulary & Language U4 W5 D5



Text Talk The Shiny Sculptures of Anish Kapoor (slides)

Big Ideas	Materials interact with light in different ways.
	Light and sound travel.
	Humans and other animals communicate with light and sound.
Weekly Question	How does light change?
Content Objective	I can articulate the difference between information provided in photographs, informational text, and quotes. (R.9.1.b)
Language Objective	I can listen carefully to others' ideas and add on to what I hear. (SL.1.1.a)
Vocabulary	 sculptor: an artist who creates three-dimensional works of art polished: shiny, from being rubbed tumbling: falling potential: possible concave: curved inwards
Materials and Preparation	 The Shiny Sculptures of Anish Kapoor slides projector and screen chart paper Prepare the Weekly Question Chart with the question: How does light change? On the whiteboard, write two of the prompts for the VTS routine: What's going on in this picture? What do you see that makes you say that?

Opening 1 minute	We have been learning about light by experimenting and reading. Today we'll learn about an artist who uses light to express his ideas. Set a purpose for the lesson. We'll begin by looking at some images and talking about what they make us think about. Then we'll read a short text to learn about the artist and hear some of what he has to say about the sculptures he creates.
Text and Discussion 10 minutes slides 2-7	Use an abbreviated VTS routine to uncover children's responses to and ideas about each of the images. <i>What's going on in this picture?</i> <i>What do you see that makes you say that?</i> As children share their responses, highlight those that draw on developing understandings about light or refer to hands-on experiences in Science and Engineering lessons and Studios and previously read texts. Push children's thinking by further asking, <i>What do you notice about this sculpture?</i> <i>What does that make you understand or wonder about light?</i>
slide 8	 Read the first paragraph of text. <i>Turn and talk with your partner: What new information do we have now?</i> Bring children's attention back to the whole group. <i>How is this information different from information we have gathered by looking at the photographs?</i> <i>As you answer this question, see if you can add onto what you hear from each other.</i> Read the second paragraph. Think, Pair, Share. <i>How do these two sentences add to what we have learned from the photographs?</i> Read the caption.
Key Discussion and Activity 10 minutes slides 9 - 12	 Give children a minute to look carefully at the photograph on slide 9. Now we'll hear some of Anish Kapoor's ideas about his artwork. This text comes from an interview. Show slide 10 and read the quote. Highlight the phrase "toying with" to mean playing or experimenting with both the materials and the viewer. Think, Pair, Share. We'll use Think, Pair, Share. Make sure you are listening carefully to your partner's thinking so you can share it with the whole group after your conversation.

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	 Reread the quote. What does this quote make you think about? How do the sculptor's words add to what we have learned from the photos and informational text? Encourage children to share to the whole group what they heard from their partners, along with or instead of their own ideas. Repeat the process with slides 11 and 12, looking first at the image alone and then reading the quote. This time, facilitate a brief whole group discussion. Encourage children to build on each other's ideas. What does this quote make you think about? How do the sculptor's words add to what we have learned from the photos and informational text?
slide 13	This sculpture is quite famous. It is huge! It sits in downtown Chicago, a large city in the center of the United States. Thousands of people visit it each year.
slide 14	Read the quote. <i>Turn and talk to your partner about what you think Anish Kapoor</i> <i>means by this.</i> Harvest a few ideas.
Closing 2 minutes	Let's visit the sculpture "Cloud Gate" by watching this video! Give children an opportunity to share brief reactions to the video.
Weekly Question Chart 2 minutes	Introduce the Weekly Question chart. Throughout this week, we will be asking and answering the question: How does light change? We can record our ideas here. Today we have seen how one artist, Anish Kapoor, uses changing light to create special effects with his sculptures. Let's add this to our chart: Light changes when it is reflected off a shiny surface. We can add more to our chart during the week.
Standards	 R.9.1.b Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. SL.1.1.a Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
Ongoing assessment	Listen to children's comments and discussion.

	 What information do children glean from the images and from the text, and how do they articulate the differences between the two? How do children apply their developing knowledge about light to their observations of the artworks? Notice how children listen to, consider, and build on each other's ideas in partner and whole group conversations.
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Text Talk: All About Light

Big Ideas	Light and sound travel.
	Materials interact with light in different ways.
Weekly Question	How does light change?
Content Objectives	I can use details from photographs and words to retell key ideas about the concept of reflection. (R.5.1.b)
	I can distinguish information from photographs and words of the text. (R.9.1.b)
Language Objectives	I can determine the meaning of key vocabulary in the text by using both context and my background knowledge. (L.4.1.a)
	I can identify and describe real-life connections to the concept of reflection. (L.5.1.c)
Vocabulary	 bounce: to rebound, or move away from a surface after hitting it direction: position in which a person or something moves or faces reflect: the action of light bouncing off an object reflection: effect of light (or sound or heat) bouncing off an object surface: the outside part or outer layer
Materials and Preparation	 All About Light, Lisa Trumbauer, for reference All About Light slides Foss Sound and Light, "Reflections" pages 46-55, copies for each child or pair of children
	On the whiteboard write:

	How is a reflection different from a shadow?
Opening 1 minute	Introduce the text and set a purpose. Yesterday we explored some artwork that uses reflections. Today we will read an informational text, All about Light by Lisa Trumbauer, again.
	We'll use details from words and photographs to retell and explain the concept of reflection. We'll notice as we did yesterday that sometimes photographs give us additional or different information than the words of the text. We'll discuss these questions: What is a reflection? How is a reflection different from a shadow?
Text and Discussion 13 minutes	Show the slides and refer to the text All about Light from Week 4. What is an object that we usually think of as bouncing? Harvest several responses, making sure to include a ball.
slide 3 pages 14-15	What does the author mean by "Light can bounce?" Use the words and the photograph to explain what you think.
	How does the photograph help us understand the information? Harvest several responses, encouraging children to build off each other's ideas and to refer to the photograph and words.
slide 5 pages 18-19	If there was no sun, what would the moon look like to us? Harvest responses, rereading as needed for clarification.
Key Discussion 10 minutes	Gather children for a whole group discussion. Using what we already know, how did the text and photographs today help us understand reflection? As children respond, turn back to specific slides that support their thinking.
Closing 1 minute	Today we used photographs and words to learn more about the reflection. Reflection is one way that light changes. Light can also change through the use of lamps and light bulbs. Tomorrow we'll read a story to continue learning about light!
Standards	 R.5.1.b Retell key details of texts, including the main topic. R.9.1.b Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. R.12 Read with sufficient accuracy and fluency to support comprehension L.4.1.a Read with sufficient accuracy and fluency to support comprehension. L.5.1.c Identify real-life connections between words and their use (e.g., note places at home that are cozy).

Ongoing assessment	Listen to children's responses during whole group conversation and Think, Pair, Share. Do children use key details in both words and photographs to answer the questions? Do children distinguish information from photographs and words?
	Do children share connections and real-life examples of reflections and shadows? How do children interact with the printed copy of the text?

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Text Talk Keep the Lights Burning, Abbie, pages 7-23 Read 1 of 3

nt and sound travel. mans and other animals communicate with light and sound. w does light change? n use details from the text and illustrations to describe the characters l setting in a book of historical fiction. (R.6.1.a, R.11.1.a, R.11.1.b) n ask questions about key details in a book of historical fiction (R.4.1.a) n describe the character and setting using relevant details and
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n describe the character and setting using relevant details and
propriate vocabulary. (SL.3.1.a)
 thouse: a tower with a light on the top that warns or guides ships at sea to travel in a boat a liquid used for fuel h: to cut k: the waxy string on a candle tch: a short, thin piece of wood used to light a fire itecaps: foamy, white water on the top of a wave er: to guide the movement of something de: to walk through water
 Keep the Lights Burning, Abbie, Peter and Connie Roop The History and Geography of Matinicus Rock slides
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	What was life like for Abbie at the lighthouse?
Opening 4 minutes slides 1 and 2	Yesterday we thought about what causes light to change. A long time ago, before lamps used electricity, lamps were lit by a flame on a wick, like a candle. Lighthouse lamps used to work this way. What do you already know about lighthouses?
	Our new text is a book of historical fiction titled Keep the Lights Burning, Abbie, written and illustrated by Peter and Connie Roop. Historical fiction is a story told about real events and people who have lived before.
	 Show the cover of the text or first slide. What do you notice on the cover of this book? Encourage children to name details they see, such as the lighthouse, the rocky island, the character's clothing, and indication of the weather. Turn and talk to your partner. Based on the cover illustration, where and when do you think this story takes place? What's its setting? This book is about a real person named Abbie Burgess who lived and worked in a lighthouse on a rocky island in Maine. It takes place in the 1850s; that's almost 200 years ago! Show and briefly talk through slide 2.
	Set a purpose for reingad. Today we'll read the first half of the story. As we read, you'll gather key details about the character and the setting. We'll ask, What was Abbie's life like at the lighthouse? When we read historical fiction—taking place at a different time— we often find vocabulary or references that may be unfamiliar. You'll
	be able to ask questions about these as we read.
Text and Discussion 14 minutes	After reading the page, turn back to the cover illustration to show the location of the lighthouse window and the view from it.
page 7	
page 9	Who or what do you think "Puffin" is? Elicit a couple of ideas and leave it hanging. Let's keep reading to find out!
	Take a look at the illustration, what do you think Abbie is helping Papa with?
page 10	What does it mean to trim the wicks?

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	 What have we learned so far about Abbie's life in the lighthouse? [Abbie helps Papa take care of the lights but has never lit them, her mom is sick, she has a sibling] What are you wondering about Abbie's life? Give children time to ask questions and to respond to each other. Leave some questions lingering to model this aspect of reading.
page 14	How do you think Abbie was feeling as Papa sailed off? What in the text or illustration tells you this?
page 21	Based on the illustration and the words, what do we know about Abbie's sisters? What are you wondering?
Key Discussion 6 Minutes page 23	Define whitecaps. Think, Pair, Share Prompt 1: What was life like for Abbie at the lighthouse? Use details from the story to describe her life. Prompt 2: Based on the events in the story, what do you predict will happen next?
Closing 1 minute	<i>We'll stop reading here. Tomorrow we'll keep reading to find out how Abbie responds to this challenge!</i>
Standards	 R.4.1.a Ask and answer questions about who, what, when, where, and how. R.6.1.a Describe characters, settings, and major events in a story, including details about who, what, when, where, and how. R.11.1.a Use illustrations and words in a text to describe its characters, setting, or events. R.11.1.b Compare and contrast the experiences of characters in various texts. SL.3.1.a Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
Ongoing assessment	Listen to children's responses during whole group conversation and Think, Pair, Share. What details do children use to describe Abbie and her life at the lighthouse? How do children use both the illustrations and words to make meaning of the text? What questions do children share?



Text Talk *Keep the Lights Burning, Abbie,* pages 23-40 Read 2 of 3

Big Ideas	Light and sound travel.
	Humans and other animals communicate with light and sound.
Weekly Question	How does light change?
Content Objective	I can use details from the text and illustrations to describe the characters and setting in a book of historical fiction. (R.6.1.a, R.11.1.a, R.11.1.b)
Language Objective	I can describe the character and setting using relevant details and appropriate vocabulary. (SL.3.1.a)
Vocabulary	lighthouse: a tower with a light on the top that warns or guides ships at sea sail: to travel in a boat oil: a liquid used for fuel trim: to cut wick: the waxy string on a candle match: a short, thin piece of wood used to light a fire whitecaps: foamy, white water on the top of a wave steer: to guide the movement of something wade: to walk through water
Materials and Preparation	 Keep the Lights Burning, Abbie, Peter and Connie Roop The History and Geography of Matinicus Rock slides On the whiteboard write: What challenge is Abbie faced with? How did Abbie respond to the challenge?

Opening 2 minutes	Yesterday we met Abbie at the lighthouse on Matinicus Island. What challenge was Abbie faced with? Turn and talk to a partner. Set a purpose for reading. Today we'll continue to use details from the words and illustrations to describe Abbie's challenge and the setting of the story. We'll also describe how Abbie responds to the challenge. After we finish the story today we'll have a chance to learn a little more about the real Abbie Burgess.
Text and Discussion 12 minutes	Reread page 23 for review.
page 23	
page 24	What is the weather like? How do you know?
page 26	What was challenging about lighting the lighthouse lamps?
	How was Abbie helping the ships at sea?
page 30	Invite children to turn and talk. Abbie stayed up all night and into the morning caring for the lamps. What were all the steps Abbie took to care for the lights? Reread pages 28 and 30 as needed to help children articulate details.
page 33	Look at the illustration. What does it mean that Abbie waded to the henouse?
Key Discussion 6 Minutes	Invite children to Think, Pair, Share. Prompt 1: What challenge was Abbie faced with?
	Prompt 2: <i>How did Abbie respond to this challenge</i> ? [Abbie did not give up, she stayed up all night, she was brave.]
Closing 5 minute	Read the author's note and look at the slides to provide more geographical and historical context. Invite children's noticing and wondering about the geography and history before closing the lesson. <i>Two hundred years ago, people faced many challenges that we</i> <i>don't face today, such as having to keep oil lamps going in</i> <i>lighthouses! Today, we use electricity to light lighthouses. Tomorrow</i> <i>we'll read closely in order to learn more about this historical figure,</i> <i>Abbie Burgess.</i>
Standards	R.6.1.a Describe characters, settings, and major events in a story, including details about who, what, when, where, and how.

	 R.11.1.a Use illustrations and words in a text to describe its characters, setting, or events. R.11.1.b Compare and contrast the experiences of characters in various texts. SL.3.1.a Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
Ongoing assessment	Listen to children's responses during whole group conversation and Think, Pair, Share. What details do children use to describe the characters and setting? Do children accurately identify the challenge and the character's response? What do children notice and wonder about the historical context of the story?

Text Talk U4 W5 D4 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education



Text Talk Keep the Lights Burning, Abbie

Read 3 of 3

Big Ideas	Light and sound travel.
	Humans and other animals communicate with light and sound.
Weekly Question	How does light change?
Content Objectives	I can answer questions about key details in a text. (R.4.1.a)
Objectives	I can analyze words and phrases in a story to describe a character. (R.6.1.a, R.7.1.a)
Language Objective	I can determine the meaning of phrases in a text using key details from the story. (L.4)
Vocabulary	lighthouse: a tower with a light on the top that warns or guides ships at sea sail: to travel in a boat oil: a liquid used for fuel trim: to cut wick: the waxy string on a candle match: a short, thin piece of wood used to light a fire whitecaps: foamy, white water on the top of a wave steer: to guide the movement of something wade: to walk through water persevere: to keep trying and to overcome a challenge perseverance: continued effort motivate: to give a reason for doing something

Materials and Preparation	 Ahead of the lesson, group children into heterogeneous reading triads for the Triad Reading routine. <i>Keep the Lights Burning, Abbie,</i> Peter and Connie Roop The History and Geography of Matinicus Rock slides <i>Keep the Lights Burning Abbie</i> excerpt for close reading Weekly Question Chart On the whiteboard write: How does Abbie show perseverance? What motivates Abbie to persevere?
Opening 1 minute	 We have now read Keep the Lights Burning, Abbie and learned a little history about the real Abbie Burgess. Based on the story, what adjective would you use to describe how Abbie acted in the story? Elicit a few ideas. (brave, courageous, not scared, hardworking) When we use adjectives to describe how characters act, we describe their traits. One trait that Abbie shows is perseverance. Perseverance means continued effort; to persevere is to keep trying and overcome a challenge. Someone who shows perseverance does not give up, even when something feels really hard. Set a purpose for reading. The authors of this story don't always tell us exactly how Abbie is feeling or acting. Today, we'll read an important part of the story closely to understand how Abbie shows perseverance.
Text and Discussion 6 minutes slide 2, page 10	Invite children to chorally read the excerpt. What does it mean that Abbie's "legs felt too heavy to run"? How is she feeling here, in the beginning of the story?
slide 3, page 14	Invite children to chorally read the excerpt. Why do you think the authors wrote that the towers seemed "as high as the sky"? What does this tell us about how Abbie is feeling? We understand that Abbie was feeling scared at first. Now we'll read an important event from the story to see how Abbie perseveres even when she feels scared.
Key Discussion and Activity 12 minutes slides 3 and 4	Distribute the text excerpts. Move children to assigned small groups, and invite them to read together. In your groups, read this excerpt and then discuss the first question on the whiteboard: How does Abbie show perseverance? As children read, circulate to support them and listen for understanding. [Abbie kept trying to light the match; she lit each lamp; she went to both

	lighthouse towers; she got out of bed and scraped ice off the windows; she climbed up and down the stairs.] Bring the children back to the whole group. Continue to analyze the text together. <i>What does it tell us that Abbie's "hands were shaking?"</i> <i>How does Abbie show perseverance in the second paragraph (page</i> <i>28)?</i>
slides 3 and 4	 Invite children back into their triads. Now you're going to read the excerpt again. This time, you'll discuss the second question on the whiteboard: What motivates Abbie to persevere? As needed, define "motivate." As children read, circulate to support them and listen for understanding. [She thought about the ships at sea.] Bring the children back to the whole group. Continue to analyze the text together. Why do you think the authors included the detail that a ship saw the lights and steered away from dangerous rocks? Why is this important? Why couldn't Abbie sleep?
Closing 1 minute	Abbie Burgess was one person in history who used light to solve a problem! Next week we'll learn more about people from history who persevered to use light and sound to solve problems.
Weekly Question Chart 5 minutes	Refer to the Weekly Question Chart. <i>This week we have been thinking about this question: How does</i> <i>light change?</i> Read the chart together. Add any essential ideas that may be missing. Identify and color-code two or three themes that emerge. Some themes might be: Light changes when it bounces off an object by causing a reflection; light changes from light to dark; the way people have used light has changed over time.
Standards	 R.4.1.a Ask and answer questions about who, what, when, where, and how. R.6.1.a Describe characters, settings, and major events in a story, including details about who, what, when, where, and how. R.7.1.a Identify words and phrases in a text that suggest feelings or appeal to the senses.

	L.4 Use context clues, analyze meaningful word parts, and consult general and specialized reference materials as appropriate to determine or clarify the meaning of unknown and multiple-meaning words and phrases from grade level content.
Ongoing assessment	Listen to children's responses during whole group conversation and Think, Pair, Share. Do children use key details to answer the questions? How do children interact with the printed copy of the text? How do triads work together to access and reread the text? Do children demonstrate understanding of the concept of perseverance, using details from the story?

Keep the Lights Burning, Abbie

Peter and Connie Roop

She picked up a box of matches. Her hands were shaking. She struck a match, but it went out. She struck another. This one burned. Abbie held the match near the wick of the first lamp. The wick glowed. The light made Abbie feel better. One by one, she lit all the lamps. Then she went to the other lighthouse tower. She lit those lamps as well. Out at sea, a ship saw the lights. It steered away from the dangerous rocks.



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Text Talk U4 W5 D5 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education
That night, the wind blew hard. Abbie could not sleep. She kept thinking about the lights. What if they went out? A ship might crash. Abbie got out of bed. She put on her coat. She climbed the lighthouse steps. It was a good thing she had come. There was ice on the windows. The lights could not be seen. All night long, Abbie climbed up and down. She scraped ice off the windows. She checked each light. Not one went out.



page 28

Unit 4: Communicating with Sound and Light

WEEK 5

Shared Reading "Shadow Race"

Weekly Question	How does light change?		
Materials and Preparation	 chart paper and markers Write out the poem for whole group reading. "Shadow Race" slides pointer highlighter tape (optional) 		
Opening 1 minute	Our Shared Reading text this week is a poem called "Shadow Race" by Shel Silverstein. We read "Noise Day" a couple of weeks ago— another poem by Shel Silverstein. Before we read this poem, we'll do some work with letters and sounds.		
Phonological Awareness 6 minutes	Review the Fundations vowel sounds poster and the vowel teams poster. Blend sounds to make a word. Let's listen to these sounds and blend them together to think of what the word is. The sounds are /sh//a//o/. What's the word? (shadow) The sounds are f/a//s/. What's the word? (face) The sounds are /e//v//er//e/ What's the word? (every) Segment sounds and substitute final blends. The word is "best." How many sounds do we hear in the word? (4) What word do we get when we substitute the ending blend -st with -nt? (bent) The word is "best." How many sounds do we hear? (4)		
	The word is "bent." How many sounds do we hear? (4) What word do we get when we substitute the ending blend -nt with		

	-nd? (bend)
	Isolate and listen for long vowels. The word is "note." What's the long vowel you hear? (o) The word is "time." What's the long vowel you hear? (i) The word is "race." What's the long vowel you hear? (a) The word is "cube." What's the long vowel you hear? (u) The word is "these." What's the long vowel you hear? (e)
	Delete and substitute syllables. The word is "always." When we delete the second syllable, "ways," what do we have left? (all)
	The word is "ahead." When we delete the first syllable, "a," what do we have left? (head)
	Delete and substitute phonemes. The word is "my." When we delete the first sound /m/, what word do we have? (I)
	The word is time. When we delete the final sound /m/, what word do we have? (tie)
	The word is "race." When we substitute the first sound with /f/, what's the new word? (face)
	The word is "back." When we substitute the ending sound with /sh/, what's the new word? (bash)
Shared Reading 8 minutes	Model reading the full poem while tracking the print. As we read today, think about what you know about syllables and listen for words that have more than one syllable.
	Echo read the full poem while tracking the print. Model expression, and emphasize words that will help children understand the meaning of the poem. Use fluency to support comprehension.
	Connect the poem to unit content. You can use your knowledge about shadows and how they are formed to make sense of this poem! What does the poet mean when he writes that he won when his face was toward the sun? Why does his shadow beat him when his back is to the sun? Identify and review key letter-sound relationships.

Closing	As we are reading, notice the sound c makes in the words "raced" and "face." The soft c, and makes the sound /s/. When c is followed by e, i, or y, it makes the /s/ sound. Chorally read the poem multiple times for fluency practice. Model scooping phrases to show pausing, and invite children to use the pointer to lead the group in scooping phrases. You will continue to practice reading the poem "Shadow Race" in
5 minute	the Reading Station.
Standards	 RF.1.2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). RF.1.2b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. RF.1.2c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. RF.1.2d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes). RF.1.3c. Know final -e and common vowel team conventions for representing long vowel sounds RF.1.3e. Decode two-syllable words following basic patterns by breaking the words into syllables RF.1.4. Read with sufficient accuracy and fluency to support comprehension. RF.1.4a. Read grade-level text with purpose and understanding.
Ongoing Assessment	Listen to children as they engage in phonemic awareness activities. Do children blend and segment phonemes? Do children isolate long vowels? Do children break words into syllables? Do children substitute syllables correctly? Do children substitute sounds? Listen to children chorally read. Do children read with appropriate phrasing and expression? Do children use the correct intonation for punctuation?
Daily Practice	 To reinforce fluency with this text, find five minutes each day for choral or paired reading. Possible extensions in small or whole group: With teacher dictation, children use cubes or chips to change vowel teams in words. For example: coat>caught, pie>pea, mouse>moose, Gail>goal, road>raid

	 With teacher dictation, children use letter tiles or write with markers on whiteboards to build vowel team words. (rain, cloud, loaf, tree, beat)
--	---

Notes	

Name: _

Fluent Reader's Challenge

Mr. and Mrs. Grant had a picnic.

That chipmunk hid in **the** grass.

Did Mrs. Smith park?

I expect to see Mr. White.

The dog in the bathtub is frantic!



Recognize and read grade-appropriate irregularly spelled words. Read with sufficient accuracy and fluency to support comprehension.





Minutes:



Trick Word Memory			
been	Mrs.	Mr.	made
month	made	want	own
little	people	Mrs.	been
want	Mr.	little	month

Skills: Recognize and read grade-appropriate irregularly spelled words.

Word Work Station U4 W5 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education

Word Work Station U4 W5 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education Name:_____

Name It	Write It	Mark It	
Write the word. Mark the syllables.			
	Word Bank		
makeup flagpole rosebu	id bookcase fireman o	utside popcorn baseball	
cupcake			
		INSIDE	

Skills: Know and apply grade-level phonics and word analysis skills in decoding words.

Word Work Station U4 W5

Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education

Make the compound word Take it ap

Take it apart and spell it

sun	block

Word Bank: pancake springtime tailgate bathmat bedbug lipstick

Skills: Know and apply grade-level phonics and word analysis skills in decoding words.

Word Work Station U4 W5



Write Multisyllable Words

1	2
3	4
5	6
7	8
9	10

Word Bank				
panic	public	magic	comic	plastic
frantic	tunic	tactic	picnic	rustic

Skills: Know and apply grade-level phonics and word analysis skills in decoding words.



https://www.smashingmagazine.com/2008/11/50-beautiful-examples-of-reflections-photography/



https://www.smashingmagazine.com/2008/11/50-beautiful-examples-of-reflections-photography/

Listening & Speaking U4 W5.1 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education

Look carefully at the image. Talk with your partner about what is happening in the photograph. After you talk, draw an image of a surface that reflects and an object being reflected by that surface. Talk with your partner about your drawings. Oscar and the Moth Conversation Prompts: Cut apart and provide with text and audio recording.

Question 1	Question 2	
What does Oscar learn about the sun and stars?	What is the relationship between some lights and warmth?	
Oscar and the Moth	Oscar and the Moth	

Name	
------	--

Look carefully at the photograph to answer the following questions.



 $https://www.bostonglobe.com/metro/2017/01/07/boston-can-expect-near-blizzard-conditions-with-snow-heavier-south/kajdmPdcmxy02azJyNCokJ/story.html \label{eq:source}$

1. What are sources of light and sources of sound in this picture? Give 2 examples of each.

> Stations: Mid-Unit Assessment U4 W5 Focus on First/ 1st Grade for ME | Boston Public Schools Department of Early Childhood P-2/ Maine Department of Education

2. How are light and sound helpful to the person in this image?

Use at least 4 of these words as you respond to this question.



communicate	protect	identify	detect	source
determine	senses	hear	volume	produce

Mid-Unit Assessment Rubric

- 1. What are sources of light and sources of sound in this picture?
- 2. How are light and sound helpful to the person in this image?

Relevant Unit Big Ideas:

- Materials interact with light in different ways.
- Humans and other animals communicate with light and sound.

	1	2	3	
Uses unit vocabulary. (L.6.1) (Q.2 - BOSTON)	Uses 1 word from the unit or uses words inaccurately.	Uses 2 to 3 words accurately.	Uses 4 or more words accurately.	
With guidance, gathers key details from a photo to respond in writing to the prompt. (W.1.1.b, R.11.1.c, R.11.1.d) (Q.1 & Q.2 BOSTON)	Does not mention details from the photo.	Uses 1-2 details from the photo but may not use the details to support a response to the prompt.	Uses at least 2 details from the photo to support a response to the prompt.	
Demonstrates conceptual understanding and knowledge about the topic. (Q.1 & Q.2 - BOSTON)	Response does not align to the unit's big ideas.	Response aligns somewhat to the unit's big ideas.	Response aligns meaningfully to the unit's big ideas.	
	Demonstrates significant misconceptions.	Demonstrates partial knowledge of the topic.	Demonstrates knowledge of the topic.	

See next page for conventions rubric.

1 = Shows little evidence of meeting the standard; 2 = Shows some evidence of meeting the standard; 3 = Meets the standard; 4 = Exceeds the standard					
Conventions	1	2	3	4	
Sentence Complexity L.1.1.1	Includes frequent errors in usage; sentences are often difficult to understand.	Writes in clear, simple sentences and phrases.	Writes in complete simple and compound sentences.	Uses a variety of simple and compound sentences.	
Capitalization L.2.1.a	Uses upper case letters minimally or incorrectly.	Inconsistently capitalizes the first word in a sentence, the pronoun <i>I</i> , names, and dates.	Capitalizes the first word in a sentence, the pronoun <i>I</i> , names, and dates.	Makes no errors in capitalization.	
Punctuation L.2.1.b	Includes frequent errors in end punctuation, making the piece difficult to read.	Inconsistently uses end punctuation.	Correctly uses end punctuation.	Correctly uses commas and/or apostrophes, in addition to end punctuation.	
Spelling L.2.1.d L.2.1.e	Includes severe errors in spelling that often obscure meaning.	Includes frequent errors in the spelling of grade- appropriate words.	Uses conventional spelling for words with common patterns and for frequently occurring irregular words; spells untaught words phonetically.	Generalizes learned spelling patterns and shows evidence of using reference materials (word walls, personal dictionaries, etc.) when writing words.	

Unit 4: Communicating with Sound and Light

WEEK 5

Stations

Mid-Unit Assessment

Materials and Preparation

- Mid-Unit Assessment slide
- projector and screen
- Weekly Words cards: communicate, protect, identify, detect, source, determine, senses, hear, volume, produce
 Display the Workhy Words cards
- Display the Weekly Words cards.
- Mid-Unit Assessment Prompt, one copy for each child
- Mid-Unit Assessment Image, one copy for each pair of children
- Mid-Unit Assessment Rubric and Exemplar

Use Stations time on one day in Week 5 to administer the mid-unit assessment. Children have had an opportunity to think together about the unit's Big Ideas; now they draw on that discussion as they think, draw, and write independently to demonstrate their understanding.

Show the image (slide), and read the assessment prompt aloud.

What are sources of light and sources of sound in this picture? Give two examples of each.

Refer to the word bank on the assessment prompt paper, and show the word cards. Think about what you see. How are light and sound helpful to the person in this image?

Talk to a partner about what you are going to write.

Distribute copies of the image, and send the children off to write.

Children may access resources posted around the classroom.

As children finish, they can read independently while others finish up.

See reverse for Stations overview page.

Station	Activities	Materials Writing tools at each station
Shared Reading	"Shadow Race"	Shared Reading text on chart and/or slidespointer
Teacher Groups	Strategic small group instruction	 as needed
Reading	Independent and Partner Reading	 "Shadow Race" child copies individual book bags pencils
Listening & Speaking	Talk, Draw, Talk	 Week 5 image (reflection) Week 5 prompt and recording sheet sand timers drawing tools
	Listen and Respond: Oscar and the Moth	 audio recording and technology Oscar and the Moth book Oscar and the Moth conversation prompts
Vocabulary	Draw for Meaning beam, shadow, location, source, block, determine	 Unit 4, Week 4 Weekly Words cards Draw for Meaning sheets
Science Literacy	What is a light beam? Filling in weather calendar	 Week 5 prompt, printed as stickers or copied and cut apart, with glue sticks science journals colored pencils and pencils
Word Work	Fluent Reader's Challenge	 Week 5 Fluent Reader's Challenge sheets sand timers Fluent Reader's Challenge directions card
phonics program)	Name It, Write It, Mark It	 Week 5 Name It, Write It, Mark It sheets Name It, Write It, Mark It directions card
	Make Multisyllable Words	 Make and Write Multisyllable Words sheets scissors Make Multisyllable Words directions card
	Make and Spell Compound Words	 Make and Spell Compound Words sheets

Stations U4 W5

Trick Word Memory	 Week 5 Trick Word Memory sheets scissors Memory directions card
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Stations U4 W5

WEEK 5 Lesson 1

Science and Engineering: Light and Shadows

Experimenting with Light

S & E Big Ideas	For a shadow to be formed an object must block light. The object must be opaque or translucent to make a shadow. A transparent object will not make any shadow, as light passes straight through transparent objects.			
S & E Guiding Question	What is a shadow? How are shadows formed?			
Content Objective	I can conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. (1-PS4-3)			
Language Objective	I can engage in conversations with my peers about light and shadows. (Standard 1)			
Vocabulary	 shadow: a dark area or shape produced by a body coming between rays of light and a surface. opaque: something that is not see through translucent: something that allows some light to pass through but it is not clear transparent: something that is clear and light can pass through 			
Materials and Preparation	 flashlights, 1 per group opaque paper, construction or felt translucent object, such as white paper, wax pape white paper, 1 page per child crayons, markers sidewalk chalk (for alternate activity) 			
Opening 4 minutes	Review with the children the definitions of opaque, translucent, and transparent. Ask the children to define a shadow . <i>Have you ever seen your shadow? How did it get there? Does</i> <i>your shadow look exactly like you?</i> Share that today children will be experimenting with shadows.			

Science and Engineering U4 W5

Investigation 15 minutes	The children will use building blocks, small toys or figures, or items from the classroom to cast shadows. Use the flashlight to cast a shadow of the figure on a piece of white paper. Demonstrate for the children how to cast the shadow and how to use a marker to outline the shadow. <i>How does the shadow change if you rotate the block?</i> <i>How does the shadow change when you move the light closer,</i> <i>further away, or from a different angle?</i> An alternative to this activity: Go outside on a sunny day. Stand in a place where children's shadows are cast. Have one child strike a pose, while another child traces it with sidewalk chalk. Then, repeat the process for the child who was tracing.
Discussion 5 minutes	What materials created the best shadow? How did the shadow change when the light was moved?
Closing 6 minutes	Review the vocabulary terms from today's lesson and the guiding questions.
Standards	 1-PS4-3 Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. Standard 1: Prepare for and participate in conversations across a range of topics, types, and forums, building on others' ideas and expressing their own.
Ongoing assessment	Check for understanding in the children's responses.

Notes

WEEK 5 Lesson 2

Science and Engineering: Mirrors and Beams

Exploring Light

S & E Big Ideas	Materials interact with light in different ways. Light and sound travel.				
S & E Guiding Question	How can we redirect a light beam?				
Content Objective	I can conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. (1-PS4-3)				
Language Objective	I can engage in conversations with my peers about light beams. (Standard 1)				
Vocabulary	light beam: energy from a light source that you can see mirror : a shiny surface that reflects light redirect : to change the direction reflection : the bouncing of light off an object				
Materials and Preparation	 mirror, one per small group flashlight, one per small group book, one per small group On the board, write: How can we redirect a light beam? 				
Opening 3 minutes	Invite children to share what they know about light and about what questions they still have. Record questions on the board. Show the flashlight and mirror. Confirm that a mirror must be handled very carefully. Show children the two sides of the mirror and ask them how they are different. [One is shiny and one is dull]. <i>How could we find out if the mirror is transparent, translucent, or opaque?</i> [Shine light at it and see if the light goes through.]				

Science and Engineering U4 W5

	Ask the children to look through the mirror from the dull side. Shine the flashlight at the dull side of the mirror. Have children confirm that the mirror is not transparent. No light goes through the mirror, so it is an opaque object. <i>What would happen if I shined the beam of light onto the shiny</i> <i>surface of the mirror?</i> Children will work with a partner to find out.
Investigation 10 minutes	Refer to the focus question on the board. How can we redirect a light beam? Show the children how to shine the flashlight beam so you can see the circle of light on the tabletop. Give them this challenge: use the mirror to redirect the light beam onto the ceiling without pointing the flashlight toward the ceiling. Ask the children to turn to their partner and describe to each other what the challenge is. Distribute the flashlight, mirror, and book to each small group. Invite them to complete the light–and–mirror challenge. When visiting the small groups: How can you get the light to shine on the book with the flashlight facing the other direction?

Discussion 10 minutes	 Ask children to share their observations. Encourage them to agree, disagree, and build on each other's ideas. Use these questions to guide the discussion. How did you redirect the light beam? How do you know where to put the flashlight and mirror to redirect the light beam? What did the light beam look like on the ceiling? What else did you observe when you worked with the mirror and the light beam? What questions do you have about light and mirrors? What else could you do with light and mirrors? 		
Closing 5 minutes	 Gather children in a circle on the rug. Ask students what new evidence they have that supports the ideas below. Light can be reflected and redirected. 		
Standards	 1-PS4-3 Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. Standard 1: Prepare for and participate in conversations across a range of topics, types, and forums, building on others' ideas and expressing their own. 		
Ongoing assessment	Check for understanding in the children's responses.		

Notes			

Wee	k 5	Prompt	

	Date
What is a light beam?	Weather
	Temperature
	Date
What is a light beam?	Weather
	Temperature
	Date
What is a light beam?	Weather
	Temperature
	Date
What is a light beam?	Weather
	Temperature
	Date
What is a light beam?	Weather
	Temperature
	Date
What is a light beam?	Weather
	Temperature
	Date
What is a light beam?	Weather
	Temperature

Science Literacy Station U4 W5

Unit 4: Communicating with Sound and Light

WEEK 5 Studios



How does light change?

Children explore and represent light with a variety of media, continuing and building on previous experiences.

Big Ideas	Light and sound travel. Materials interact with light in different ways.
Materials and Preparation	 Studios prompts, cut apart and added to each bin Studios Planner observation sheets
	Bring to the whole group meeting only those bins needed for introductions.
	 For the Library Studio: a collection of fictional stories, not from Unit 4 Light and Sound Messages sheets clipboards writing tools
	 For the Science and Engineering Studio: Sun and Shadow Challenge cards, cut apart, 2 or 3 sets
	 <u>New for the Writing and Drawing Studio:</u> a variety of writing papers materials for creating a class book
	Review Studios descriptions below. Decide which studios to introduce explicitly. Prepare the Opening basket and materials accordingly.
Opening	Most of this week's Studio activities are familiar to you. Let's do a quick review.

	At the Library Studio, you can use any of the fictional books in our classroom to keep thinking about how people use light and sound to send messages.
	The Science and Engineering Studio will happen outside! Here are some Sun and Shadow Challenges you can try. Explain where children will use these challenge cards (outdoors, or in a cleared and sunny space in the classroom).
	Describe and model each studio to the extent needed for children to begin their work.
	<i>Turn and tell your partner your plan and your backup plan.</i> Ask a couple of children to share their plans, and dismiss all children to begin working.
Facilitation	As children work, circulate and engage children in conversation about their endeavors. Exploit opportunities to highlight children's connections to the Weekly Question and the unit's Big Ideas. Offer support in the form of material and print resources, strategies, adaptive tools, and consultation with peers.
	Listen in, observe, and take notes about children's interests, experiences with, and questions about light. Use these notes to plan for upcoming Studios sessions.
	While children work, consider which piece of work to bring to a Thinking and Feedback meeting.
Closing Studios	Support smooth clean up of studios materials and organization of works in progress.
	Facilitate a short, whole group meeting after Studios to discuss children's activities, discoveries, and questions.

Art	Making Shadow Puppets Continues from previous week
	<u>Objective:</u> I can experiment with light to make a shadow puppet.
	Extension: Children make new puppets as needed for stories they and their

	classmates are developing.
Building	Building a Puppet Theatre Continues from previous week Objective: I can build a puppet theatre to effectively show a shadow puppet story. Extension: Children collaborate to use the theatre to perform plays they are developing and to make changes to its design as indicated by its use.
Drama	Telling, Writing, and Acting Out Stories Continues from previous week Objective: I can use what I know and am learning about light to tell, write, and act out stories. Extension:
Library	Children use shadow puppets and the puppet theatre to perform their stories. Light and Sound Messages Objective:
	 I can peruse fictional books to identify ways characters use light and sound as communication. <u>Introduction:</u> This week as you look through our books, see if you can find evidence that characters are using light or sound to communicate a message. You can record what you find here. Model with a fictional text not from Unit 4. Flip through the pages, thinking aloud about the illustrations and recalling the events of the story. Identify the use of light or sound to send a message. Show the Light and Sound Messages sheet and walk through completing one row. Process:
	Independently and with classmates, children read to find, identify, and describe use of light or sound as communication. They record their findings on the sheet provided. Facilitation: What light or sound messages are you finding?

	1
	What message is the light/sound sending? Why do you think the author included this in the story? Can you record your findings with a drawing? With words?
	Ongoing Assessment: Review children's Light and Sound Messages sheets. Note how children record book titles, and what messages they identify. Do children draw on learning so far to identify how people use light and sound to communicate? What might they need to revisit as the Look and Listen! Project launches?
	Thinking and Feedback Possibilities: Invite a research pair to share what they have found. Invite them to show two or three messages they have found in texts and to describe how they identified these. Do their classmates identify these same story elements as communication by light or sound? Highlight the ways this conversation helps all classmates think about light and sound as message-sending tools.
Science and Engineering	Exploring Light and Materials Note: This activity requires bright sunlight, ideally outdoors. Objective: I can attempt a variety of challenges to create specific effects with light and shadows.
	Introduction: What can you do with a shadow? These cards have challenges on them. You will work with a partner, and you can try as many of them as you like. As you work, think about what you already know and what you are learning about light and shadows. See how many of these challenges you can meet!
	<u>Process:</u> With partners, children choose any of the Sun and Shadow Challenges and attempt them. Encourage them to share ideas, strategies, and resources.
	<u>Facilitation:</u> What are you trying to accomplish? How are you thinking about this challenge? What else could you try? Have you asked anyone to help you? Does this remind you of a situation you have been in before?

	Can you think of anything we have seen or read about that could help you think about how to accomplish this? Ongoing Assessment: Observe as children work. How do children organize themselves and the space they are in, respective of the position of the sun, in response to a specific challenge? Do they rely on knowledge they have developed so far during this unit? What other resources do they access, if any? <u>Thinking and Feedback Possibilities:</u> Children share a challenge they chose and describe how they
	approached it. Suggest that they share a challenge with which they had to persevere through confusion or frustration to reach success.
Writing and Drawing	Making Storyboards Continues from previous week
	<u>Objective:</u> I can use a storyboard to plan a story featuring light.
	Extension: Following classmate's storyboards, children record and illustrate each other's stories, possibly creating a class book.
Standards	Standards addressed will depend upon the studios in which children work. Possibilities include those listed in the Studios Introduction (Part 2: Components) and the following studio-specific standards. <u>Drama</u> :
	L.6.1 Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).
	Science and Engineering: Practice 1. Asking questions and defining problems
	 Writing and Drawing: W.2 Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. W.2.1.a With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.

	Thinking and Feedback: SL.2.1.b Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
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Notes

Art Studio

What do I notice about how the light and the shadow are related?

What is challenging about this?

What story might these puppets play out?

Building Studio

How can we make an effective shadow puppet theatre?

What is the best position for the theatre and the light?

Drama Studio

How will I show the story I want to tell? What might happen next?

Library Studio

What messages are being sent? Why might the author or illustrator have included this in the story?

Science and Engineering Studio

What is surprising? Why does the shadow work this way? What else can we try?

Writing and Drawing Studio

How is light important in this story? Is this the best order of events? How can I tell and show this story?
Names _____

Look through some fiction books. Find examples of characters using light or sound to send messages. Record what you find.

book title	tool	message
	Iight	
	sound	
	Iight	
	sound	
	Iight	
	sound	
	Iight	
	sound	
	Iight	
	sound	

Sun and Shadow Challenge cards

,	
Make a wide shadow and a narrow shadow.	Hide your shadow.
Put a small stick in the ground. Make a circle around it with your shadow.	Make a shadow with 3 arms. With 4 arms. With 6 arms.
Shake hands with your partner and look at the shadow. Now figure out how to make a shadow look like you're shaking hands without touching hands.	Find an object that makes an interesting shadow. Turn the object in some way to make a different shadow.
Make a shadow on the wall and on the ground at the same time.	Make your shadow jump.
Find a natural shadow in the schoolyard.	Make up a shadow challenge for your partner.

Adapted from FOSS:

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Sound and Light Module Investigation 3: Light and Shadows No. 16—Teacher Master

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Writing Explanation

Individual Construction: Phenomenon Statement

Content Objective	I can write a phenomenon statement for an explanation. (W.2, W.3.1.b)
Language Objective	I can plan for writing by saying my phenomenon statement to a partner. (SL.1.1)
Vocabulary	 explanation steps: the phenomenon explained, in order phenomenon statement: the beginning of an explanation, where the phenomenon is introduced explanation: a genre of writing whose purpose is to explain a phenomenon in sequence
Materials and Preparation	 Explanation anchor chart, from Week 4, Day 2 From Sheep to Sweater, Robin Nelson, copies available for children's use children's writing folders, including explanation steps from Week 4 writing tools writing paper, one sheet for each child Explanation Observation Tool, one copy for each child
Opening 1 minute	Last week you wrote the explanation steps for how sheep's wool becomes sweaters. Today you will write the phenomenon statement for that explanation.
Individual Construction 19 minutes page 3	Refer to the Explanation anchor chart. <i>Remember, explanations begin with a phenomenon statement,</i> <i>which names what will be explained.</i> <i>It's helpful to think of the phenomenon statement as answering a</i> <i>question. In this book, the question is "A sweater keeps me warm.</i> <i>How is it made?"</i>
	Review your explanation. What question are you answering?

	Think of a possible phenomenon statement that could introduce what you are explaining. Say your phenomenon statement to a partner; then go to write it. Send the children with writing tools, folders, and paper. As they work, circulate to support them. Have copies of the book available for children's reference.
Closing 10 minutes	Bring the class back together in the meeting area. Allow several children to share their phenomenon statements. You have each written an explanation! Next you will learn about the language of explanation.
Standards	 W.3.1.b Use a combination of drawing and writing to communicate a topic with details. W.2 Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. SL.1.1. Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
Ongoing assessment	After the lesson, review children's work using the Explanation Observation Tool, focusing on Phenomenon Statement.

Explanation Observation Tool

Child's Name:

	Yes, date observed and notes	Not Yet, notes and next steps
Structure	1	
Phenomenon Statement : names the phenomenon introduced in the explanation		
Explanation Steps : includes all steps in the explanation, in order		
Medium: Accordion Book		
Illustrations : illustrations are clear and match the words		

	Yes, date observed and notes	Not Yet, notes and next steps
Language		
Verbs: uses present tense action verbs		
Nouns: uses general nouns, naming a group or class, rather than something specific (e.g. "sound," rather than "the sound of a dog barking")		

Suggestions for Week 8 revisions, based on observations



Writing Explanation

Deconstruction and Revision: Verbs

Content Objective	I can identify the verbs in explanations. (W.3.1.b)
Language Objective	I can revise my explanation to include present tense action verbs. (L.1.1.d, W.2.1.a, W.3.1.b, W.2)
Vocabulary	 verb: a word that expresses a physical action, mental action, or state of being explanation: a genre of writing whose purpose is to explain a phenomenon in sequence precise: exact; specific imperative verb: verb that gives directions tense: the form of a verb that specifies time present tense: happening now action verb: a verb that expresses action
Materials and Preparation	 Explanation Verbs slides children's writing folders, including phenomenon statements and explanation steps writing tools <i>From Sheep to Sweater</i>, Robin Nelson, copies available for children's use Explanation Observation Tools, from Day 1
Opening 1 minute	Today you will learn about verbs, and then you'll revise the verbs in your explanation.
Deconstruction 19 minutes slide 2	We have learned about a lot of different kinds of verbs in Writing this year. Remember, verbs are words that show a mental action, physical action, or state of being. Procedures use precise imperative verbs to begin the steps. These

	verbs give directions.
slide 3	Personal recounts use verbs that relate to the topic and develop the characters. Because personal recounts tell something that already happened, they use verbs in the past tense .
slide 4	The verbs in explanations are different from those in procedures and personal recounts.
	<i>Let's read this page from</i> From Sheep to Sweater. What do you notice about the verbs?
slide 5	Explanations use present tense action verbs.
	They are in the present tense because they are used to explain how something works or happens all the time.
	They are action verbs that explain the actions of how something works or happens.
slide 6	<i>We're going to practice changing verbs in sentences to make them present tense action verbs. Let's read this sentence together.</i>
	The verb is not in the present tense. What can you change to make it a present tense verb?
	After harvesting children's ideas, click the animation to bring in the second sentence. Read the second sentence.
	The -ed makes the word "washed" in the past tense. You can take off the -ed to change the word "wash," which is in the present tense!
	The first sentence tells what people did. The second sentence explains how something works.
slide 7	Let's try another one. Read this sentence.
	The verb is not an action verb and the sentence does not show an action. How can you change the sentence to include an action verb?
	After harvesting children's ideas, click the animation to bring in the second sentence. Read the second sentence.
	Instead of using "is" in a sentence that describes the yarn, you can

l	use the word "due" to show an action
	use the word "dye" to show an action.
	The first sentence describes the yarn.
	The second sentence explains how something works.
Revision 9 minutes	Now it's your turn to go back and revise. Begin by underlining all of the verbs in your explanation.
slide 8	Then check each verb. Is it in the present tense? Is it an action verb? If not, change the verb to be a present tense action verb.
Closing 1 minute	Today you learned about the verbs in explanations and revised your work. Tomorrow you will continue learning about the language of explanations.
Standards	 W.3.1.b Use a combination of drawing and writing to communicate a topic with details. W.2 Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. W.2.1.a With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. L.1.1.d Use verbs to convey a sense of past, present, and future (e.g., <i>Yesterday I walked home; Today I walk home; Tomorrow I will walk home</i>).
Ongoing assessment	After the lesson, review children's work using the Explanation Observation Tool, focusing on Verbs.

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Writing Explanation

Deconstruction and Revision: General Nouns

Content Objective	I can identify the general nouns in explanations. (W.3.1.b)
Language Objective	I can revise my explanation to include general nouns. (L.1.1.a, L.1.1.b, W.2.1.a, W.3.1.b, W.2)
Vocabulary	general : naming a group; not specific noun : a word that names a person, place, thing, or idea explanation : a genre of writing whose purpose is to explain a phenomenon in sequence
Materials and Preparation	 From Cocoa Bean to Chocolate, Robin Nelson General Nouns slides Explanation anchor chart images: language, cut apart Explanation anchor chart, from Week 4, Day 2 children's writing folders, including phenomenon statements and explanation steps writing tools Explanation Observation Tools, from Day 1
Opening 1 minute	Yesterday you learned about the verbs in explanations. Today you will learn about general nouns, and then you'll revise the nouns in your explanation.
Deconstruction 19 minutes From Cocoa Bean to Chocolate	 Show From Cocoa Bean to Chocolate. This book, From Cocoa Bean to Chocolate, is another book by Robin Nelson that we read during our last unit. It is also an explanation, written to explain a phenomenon in sequence. Depending on children's familiarity with the text and available time, either read the whole text or do a picture walk to remind children of the book's content.

slide 2	Just like we learned with reports, when authors write about a whole group of things, they use general nouns .
	For example, this book explains how chocolate is made in general, not just how one bar of chocolate was made.
	Robin Nelson uses the general noun cocoa beans to talk about all cocoa beans. It is plural. The -s at the end makes it a general noun.
slide 3	Let's look for more general nouns. Read the page. Ask the children to identify general nouns.
slide 4	Is this what you found? Machines, shells, and beans are general nouns.
slide 5	Let's try once more. Read the page. Ask the children to identify general nouns.
slide 6	Is this what you found? Workers, pods, trees, and cocoa beans are general nouns.
	Let's add what we learned about explanation language to our chart. Under the Stages section, write Language. Attach the language cards to the chart.
Revision 9 minutes	Now it's your turn to go back and revise. Begin by underlining all of the nouns in your explanation.
slide 7	Then check each noun. Is it a general noun? If not, change the noun to be a general noun.
Closing 1 minute	Today you learned about the nouns in explanations and revised your work. Tomorrow you will begin planning for the explanations you will write.
Standards	 W.3.1.b Use a combination of drawing and writing to communicate a topic with details. W.2 Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. W.2.1.a With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. L.1.1.a Use common, proper, and possessive nouns. L.1.1.b Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).

Ongoing	After the lesson, review children's work using the Explanation Observation
assessment	Tool, focusing on Nouns.

Explanation anchor chart images

language





Writing Explanation

Planning

Content Objective	I can plan for writing an explanation for K1 students. (W.3.1.b, W.2)	
Language Objective	I can contribute to a class discussion about our audience. (SL.1.1)	
Vocabulary	 explanation: a genre of writing whose purpose is to explain a phenomenon in sequence audience: an individual or group for whom a piece of writing is composed medium: a form of communication image: a representation of something in the form of a drawing, photograph, etc. 	
Materials and Preparation	 at least one example of an accordion book From Sheep to Sweater and From Cocoa Bean to Chocolate slides chart paper, 1 piece Prepare the following explanation planning chart. 	

Opening 1 minute	For the rest of Writing this year, you will write an explanation that answers the question, How does sound travel?	
	You will write your explanation for children in PreK and publish it as an accordion book. Today we will prepare for writing explanations by learning more about accordion books and planning for our audience of PreK students.	
Deconstruction 5 minutes	Accordion books are books that have pages connected from end to end.	
	They can be read by turning pages, like a regular book. [model with the sample text(s)] Or, they can be read by spreading them out flat across the floor. [model with the sample text(s)]	
	Accordion books are a good medium for publishing explanations, because the reader will be able to see all of the parts of the explanation at once, in order.	
Joint Construction 10 minutes	We know that it is important to plan for writing to a specific audience. Think, Pair, Share. What do you know about PreK students? Harvest children's ideas, recording them in the top section of the planning chart.	
	Based on what we know about children in PreK, what will be important to keep in mind as we write our explanations? Harvest children's ideas and record them in the bottom section of the planning chart.	
Deconstruction 13 minutes <i>From Sheep to</i> <i>Sweater</i> and	Many children in PreK do not read independently, so it will be very important for us to include clear images in our explanations. This will help our audience understand how sound travels, even if they are not able to read all of the words by themselves.	
From Cocoa Bean to Chocolate slides	Let's look at the images in our mentor texts. What do you notice? Facilitate a discussion about how the images support children's understanding of the explanations. Add any relevant insights to the bottom of the planning chart.	
Closing 1 minute	Today you began planning for writing explanations by considering your audience and medium. Tomorrow you will begin researching the topic of your explanation.	

Standards	 W.3.1.b Use a combination of drawing and writing to communicate a topic with details. W.2 Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. SL.1.1. Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
Ongoing assessment	Reflect on the class discussion. What do children understand about their audience of PreK students? Based on their understanding of PreK students, what considerations do children offer?

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Writing Explanation

Research

continued on Week 6, Day 1

Content Objective	I can recount and record information found in texts to answer a research question. (R.6.1.b, W.3.1.b, W.2, W.1.1.a, W.1.1.b)		
Language Objective	I can use what I learned from a research text to explain how sound travels. (SL.2.1.a)		
Vocabulary	 explanation: a genre of writing whose purpose is to explain a phenomenon in sequence explain: to describe in detail phenomenon: an observable thing that happens sequence: in a particular order research: to get information about something 		
Materials and Preparation	In this and the following lesson, children conduct research for their explanations by reading unit texts. These lessons can be facilitated in different ways, depending on the needs of the class. Option 1 (outlined in this lesson): The teacher reads the text selection aloud to the class and facilitates children's notetaking. Option 2: The teacher introduces the task outlined on the slides, and children follow the instructions to read/listen to the text on their own.		
	 explanation planning chart, from Day 4 Amazing Sound, Sally Hewitt or Explanation Research, part 1 slides Explanation Steps sheet, 4 copies for each child, plus extra copies writing tools children's writing folders 		
Opening	We know that explanations are written to explain a phenomenon in		

1 minute	sequence. But where do writers get their information?	
	Writers get information through research. Research can mean a lot of different things, including reading about a topic, interviewing experts, or conducting experiments.	
	Before you write your explanation, you will do research to find out how sound travels.	
Research 28 minutes	Refer to the explanation planning chart. Remember, you will be writing to answer the question, How does sound travel?	
Amazing Sound, pages 6-9	I am going to read a few pages from Amazing Sound by Sally Hewitt. As I read, think about our research question, How does sound travel?	
	Read pages 6-9.	
	Think about what you learned from the text that answers the research question, How does sound travel?	
	In your own words, explain to your partner how sound travels.	
	After talking to your partner, you will write down the steps for how sound travels on these sheets. These are your notes, not your full explanation. You can draw sketches, write words, or both—whatever you need to remember what you learned from this text.	
	Send the children with Explanation Steps sheets, writing tools, and folders to write research notes. As they write, circulate to support their work. Have <i>Amazing Sound</i> available for their reference.	
Closing 1 minute	Today you began researching for your explanation. Next you will continue your research.	
Standards	 R.6.1.b Describe the connection between two individuals, events, ideas, or pieces of information in a text. W.3.1.b Use a combination of drawing and writing to communicate a topic with details. W.2 Develop, strengthen, and produce polished writing by using a collaborative process that includes the age-appropriate use of technology. W.1.1.a Investigate questions by participating in shared research and 	

	 writing projects. W.1.1.b Gather information from provided sources and/or recall information from experiences in order to answer questions with guidance and support from adults. SL.2.1.a Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
Ongoing assessment	Review children's research notes. What do they understand about how sound travels? What more do they need to learn to develop an accurate understanding? What information do children draw from texts? Do they represent the information in their own words?

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Explanation Steps					
Name:	Date:				

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