WEEK 6 Studios

How do people use light?

The **Look and Listen! Project** is introduced in the Text Talk lesson on Day 1. Children continue from that lesson to refine their plans for designing communication tools using sound and light for use by children in PreK, gather materials, and begin building. Most studios are open-ended and serve to support this work. Specific materials and work across studios will depend on designs proposed by each small group and the materials needed to realize them.

Big Ideas	Light and sound travel. Humans and other animals communicate with light and sound. People innovate and invent to solve problems.
Materials and Preparation	• Studios prompts, cut apart and added to each bin • Studios Planner • Observation sheets • Children's Look and Listen! Project Planning sheets in progress • Evaluating Our Design sheets, copies for each small group Review children's planning sheets. Gather materials they suggest and others that can support the building of their designs. These will include all of the materials used to date to create sound and light effects. Review the suggested activities, in brief, below. Organize materials in each studio and around the classroom so that children may access those they need. Arrange work areas to encourage small groups to share materials and to consult productively with each other. Distribute children's planning sheets, and encourage or set up children to work in the small groups established during the project introduction (Text Talk Day 1).

	<u>For the Art Studio:</u> ● blank paper ● writing and drawing tools ● examples of invention drawings <u>For the Building Studio:</u> ● Beautiful Stuff ● any available building materials ● temporary adhesives, such as masking tape, wire, string, yarn <u>For the Library Studio:</u> ● "Inventors!" slides, from Text Talk Day 4 ● Unit 4 and other texts ● technology for conducting online research ● blank paper, small books, and/or chart paper ● writing and drawing tools <u>For the Science and Engineering Studio:</u> ● white paper ● writing and drawing tools <u>For the Writing and Drawing Studio:</u> ● Communicating with Light video (PBS, 2:12, https://mass.pbslearningmedia.org/resource/buac18-k2-sci-ps-communicatelight/communicating-with-light/) Bring to the whole group meeting those materials that support children's articulated ideas and provoke them to consider ideas beyond their initial plans.
Opening	*You have already been thinking about this challenge: What tool can you build for four year olds to communicate a message using sound or light? In all of the studios you can continue your planning and try out your ideas.* Describe the different ways children might approach next steps, according to the materials arranged among the studios. Distribute children's project planning sheets. *Huddle with your group to review your project plans and decide your next steps for today.* Ask a couple of children from different groups to share their plans.

	You will also need to think about whether your designs will work for the children who will use them. For example, if one part of your tool is quite large, a four year old's hands might not be big or strong enough to use it. Show and talk through the Evaluating Our Design sheet. Dismiss all children to begin working.
Facilitation	As children work, circulate and engage them 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.
Ongoing Assessment	Review the Evaluating Our Design sheets. Does the central idea of the design draw upon learning about light and sound? Is the plan realistic? Does it use available materials? Can the children build it so that it works in a satisfying way? Will four year olds be able to use the tool? What suggestions will help the group (re)consider this audience? Are all the children in each group working toward the same end? Would any children or groups benefit from reassignment? Copy or digitally capture the small groups' Evaluating Our Designs sheets so that they can be appropriately filed for each child.

Art 	**Look and Listen! Project: Drawing Ideas** *Develops from project planning.* Children make detailed drawings of their ideas. They refer to *Rosie Revere, Engineer* (Days 2-3), "Inventors!" (Day 4), and "Lewis Latimer and the Long-Lasting Light Bulb" (Day 5) texts.

Building 	**Look and Listen! Project: Building Models** *Develops from project planning.* Working from their designs, children use any available building materials, including but not limited to Beautiful Stuff, to build initial models of their tool designs. Children attach materials in ways that they can be easily taken apart to allow for multiple trials.
Drama 	**Look and Listen! Project: Acting Out Using Communication Tools** *Develops from project planning.* Children play out scenarios which require communication and use of proposed tools as a means of assessing their designs. What is the situation that requires communication? Will this tool work? Why or why not? What longer story might evolve from this situation? In what situations will this tool work best?
Library 	**Researching Inventors and Inventions** <u>Objective:</u> I can research inventors who interest me. <u>Introduction:</u> *We have read the text "Inventors!" to learn a little bit about several inventors who used sound and light. Who and what would you like to learn more about? How will you do it?* Brainstorm research resources, including Unit 4 and other texts and websites. <u>Process:</u> Independently and with classmates, children read to learn about inventors and inventions. They record what they find in writing and drawing on sheets of paper, in small books, or on shared charts. <u>Facilitation:</u> *What inventor or invention are you researching?* *What interests you about this person/invention?* *How will you record what you find?* <u>Ongoing Assessment:</u> Review children's writing and drawing. What interests them? Why? How do they record what they learn? <u>Thinking and Feedback Possibilities:</u> Invite a child or pair of children to share what they have learned.

	Classmates might offer questions for further research.
Science and Engineering 	**Illustrations of Light** Drawing from their learning from the Science and Engineering lessons, children draw a picture of a light signal (a lighthouse or traffic light) or refracted light (a rainbow). **Look and Listen! Project: Building and testing models** Children use the studio to continue work on their communication tools, as needed.
Writing and Drawing 	**Look and Listen! Project: Writing Stories** *Develops from project planning.* Children write and draw stories or real life scenarios in which communication tools are or could be used. For inspiration, children might begin by watching the PBS video, Communicating with Light, in which children devise a scenario in which they will communicate between tents and write out their light code.
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.

Notes