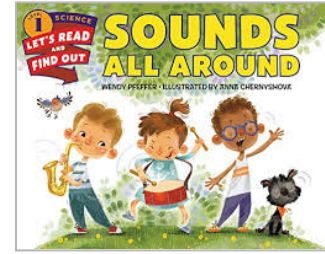


Unit 4: Communicating with Sound and Light



WEEK 1 Days 4-5

**Text Talk**  
***Sounds All Around*, Pages 1-15**  
**and **Beatboxing videos****  
 \*Spread this lesson out over the course of two days.

<b>Big Ideas</b>	Vibrating materials make sound. Sound makes materials vibrate.  Light and sound travel.  Humans and other animals communicate with light and sound.
<b>Weekly Question</b>	What is sound?
<b>Content Objectives</b>	I can use text features, illustrations and key details to learn information about how people produce and receive sound. (R.8.1.b)  I can ask and answer questions about key vocabulary in the text. (R.7.1.b)
<b>Language Objective</b>	I can ask questions about sound. (SL.1.1.c, L.1.1.i)
<b>Vocabulary</b>	<b>produce:</b> to make <b>receive:</b> to take in (as in sound) <b>vocal chords:</b> smooth bands of muscle found in the larynx (voice box); the part of the body that vibrates as air passes through the throat to the lungs <b>lungs:</b> organs in the rib cage used for breathing <b>larynx:</b> an organ in the neck where sound is produced, also called the voice box <b>trachea:</b> the tube in the neck that carries air to the lungs; also called the windpipe <b>vibrate:</b> to move quickly back and forth

	<p><b>vibration:</b> a rapid motion back and forth</p> <p><b>ripple:</b> a very small wave</p>
<p><b>Materials and Preparation</b></p>	<ul style="list-style-type: none"> <li>● <i>Sounds All Around</i>, Wendy Pfeffer</li> <li>● <i>Sounds All Around</i> slides</li> <li>● chart paper</li> </ul> <p>At the top of the chart paper write the title, Questions about Sound.</p> <ul style="list-style-type: none"> <li>● <a href="https://www.youtube.com/watch?v=EAHExoZlgjM">How to Beatbox Basics in 1 Minute</a> video (2:11)</li> <li>● <a href="https://www.youtube.com/watch?v=xLGyKCsTDQI">Beat Box   Nicole Paris   TEDx</a> video</li> </ul> <ul style="list-style-type: none"> <li>● chart paper</li> </ul> <p>Create the Weekly Question Chart.</p> <p>On the whiteboard write:</p> <p><u>vibrate</u></p> <p>How do people produce sounds?  How do people receive sounds?  What does the word <u>vibrate</u> mean?</p>
<p><b>Opening</b> 2 minutes</p>	<p><i>Today we'll read the first informational text in our new unit, Sounds All Around, by Wendy Pfeffer. The title reminds me of the fictional stories we've read this week, where the characters Max and Yoshio were inspired by the sounds in their environments.</i></p> <p>Set a purpose for the read.</p> <p><i>Today we will read to find out how people <b>produce</b>, or make, sounds with their voices, and how people <b>receive</b>, or hear, sounds. The author includes some useful informational text features that can help us learn about this.</i></p> <p><i>Today, we will also be introduced to a very important word in our study of sounds: vibrate.</i></p> <p>Refer to the word on the whiteboard and invite children to repeat it.</p> <p><i>You'll have a chance today and tomorrow to ask and answer questions about this important word.</i></p>
<p><b>Text and Discussion</b> 12 minutes  Page 12</p>	<p>Read up to page 12 with minimal stopping.</p> <p>Read the section at the top of page 12 (main text). Invite children to follow the actions suggested in the text, using quiet voices.</p> <p><i>What does the author mean by "Your fingertips tingle"?</i></p> <p>Read the bottom section of the page.</p>

	<p><i>The word we use to describe the very fast shaking that happens in our vocal chords is <b>vibrate</b>.</i></p> <p>Demonstrate moving a straight, horizontal finger rapidly up and down in front of the throat.</p> <p><i>This word is so important in understanding what makes sound. We are going to explore this word even more next week, but we've begun to grow our understanding of it today. Everytime we hear the word "vibrate" in our text today, you can make this motion (move a flat hand rapidly up and down).</i></p> <p>Show slide 1.</p> <p><i>What does this diagram show? Turn and talk with a partner.</i></p> <p><i>Although the heading is "Your Vocal Cords," this diagram actually shows all the parts of the body involved in producing sound with our voices.</i></p> <p><i>As I read the text, refer to the diagram and move your finger to the different parts of your body that produce sound.</i></p> <p>Click forward on the slide to show the text box. Read slowly, encouraging children to first find their lungs, then larynx. Invite children to make different pitched sounds and feel their larynx move.</p> <p><i>The author and illustrator did not include this information here: the actual vocal cords are small, stretchy muscles inside of the larynx.</i></p> <p><i>Since the term "vocal cords" is in bold, we know we can find it in the glossary. Let's see if there is any additional information about vocal cords.</i></p> <p>Turn to the glossary at the back of the book. Show slide 2 for the same definition, enlarged.</p> <p><i>What questions do you have about how our voices produce, or make, sound? What are you wondering or confused about?</i></p> <p>Record these questions on the chart with children's initials next to each question.</p>
page 13	<p><i>Based on what we have been reading on these pages, why is there no sound when your throat is still?</i></p>
page 14	<p>Read the section at the top of page 14 (main text).</p> <p><i>Make the motion of a wave with your hands. Like the text says, we can't see sound waves, but they move sound from one place to another.</i></p> <p>Show slide 3. Turn and talk.</p>

	<p><i>What does this diagram show?</i></p> <p><i>When someone talks or sings, their vocal cords produce sound. Our ears receive those sounds.</i></p> <p><i>As I read the text, refer to the diagram and imagine the path the sound takes into your ear.</i></p> <p><i>Please do not put your fingers inside your ears; these body structures that allow us to hear are very delicate!</i></p> <p>Click forward on the slide to show the text box. Read slowly.</p>
<p>page 15</p>	<p>Read the page.</p> <p><i>What questions do you have about how our ears receive, or hear, sound? What are you wondering or confused about?</i></p> <p>Record these questions on the chart with children’s initials next to each question.</p> <p>Read the page a second time, inviting children to use their hands to demonstrate a rippling vibration.</p>
<p><b>Key Discussion and Activity</b> 5 minutes</p>	<p>Think, Pair, Share.</p> <p>Prompt 1: How do people produce sounds?</p> <p>Prompt 2: How do people receive sounds?</p> <p>Support children to use information from the text, but do not worry about mastery of the science concepts at this point. Rather, use the group discussion to assess children’s misconceptions and emerging understandings about sound.</p> <p><i>Our voices are an amazing sound source! Some people are able to make rhythmic music just with their voices; this is called <b>beatboxing</b>. Let’s watch.</i></p> <p>Show the video, “How to Beatbox Basics in 1 Minute.”</p> <p><i>Based on what we learned in Sounds All Around, what part of the body is making all those amazing sounds when he beatboxes?</i></p> <p>Show the first 2 minutes of the video, Beat Box   Nicole Paris   Tedx.</p> <p><i>How are these sounds similar to or different from the sounds in the first beatboxing video?</i></p> <p><i>Now that we’ve seen sound produced through beatboxing, do you have any final questions to add to our chart?</i></p> <p>Again record questions with children’s initials.</p>

<p><b>Weekly Question Chart</b> 5 minutes</p>	<p>Refer to the Weekly Question Chart. <i>This week we have been thinking about this question: What is sound?</i></p> <p>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: Sound is made when an object vibrates (moves back and forth); There are different kinds of sounds.</p>
<p><b>Closing</b> 1 minute</p>	<p><i>We have learned so much about sound already! We'll continue learning about sound next week.</i></p>
<p><b>Standards</b></p>	<p><b>R.7.1.b</b> Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.</p> <p><b>R.8.1 b</b> Determine and use text features (e.g., headings, bold print, indexes, graphics, tables of contents, glossaries, links, icons) that help locate key facts or information in a text.</p> <p><b>SL.1.1.c</b> Ask questions to clear up any confusion about the topics and texts under discussion.</p> <p><b>L.1.1.i</b> Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.</p>
<p><b>Ongoing assessment</b></p>	<p>Listen to children's responses during whole group conversation and Think, Pair, Share.</p> <p>What are children's understandings and misconceptions about sound?</p> <p>Were children able to use key details and text features to make meaning of new vocabulary?</p>

**Notes**

