



**First Grade Curriculum Pacing Guide  
Sound and Light**

**Crosscutting Concepts:** Cause and Effect, Energy and Matter, Patterns

**Topics:** Sources of Light, Shadows, Sound and Vibration

Estimated Time: 8 weeks

Anchoring Phenomenon	Standards	Instructional Segment	Disciplinary Core Ideas	Science and Engineering Practices	Instructional Notes
<p>Students will use various objects to investigate light and sound understanding that objects that vibrate produce sound and light come from many sources. Sounds and lights are also used to alert people. Utilize children’s literature dealing with musical instruments and their sounds.</p>	<p><b>S1P1.a, b, c, d, e</b></p>	<p><b>What’s that sound? Do you see what I see?</b></p>	<p>From <a href="#"><i>A Framework for K-12 Science Education:</i></a></p> <p align="center"><b>By the end of grade 2</b></p> <p><b>PS4.A Waves and their Application in Technologies for Information Transfer</b></p> <ul style="list-style-type: none"> <li>● Sound can make matter vibrate, and vibrating matter can make sound.</li> </ul> <p><b>PS4.B Electromagnetic Radiation</b></p> <ul style="list-style-type: none"> <li>● Objects can be seen only when light is available to illuminate them.</li> <li>● Very hot objects give off light (e.g., fire, the sun)</li> <li>● Some materials block out all the light and create a dark shadow on any surface beyond them, where the light cannot reach.</li> </ul> <p><b>PS4.C Information Technologies and Instrumentation</b></p> <ul style="list-style-type: none"> <li>● People use a variety of devices to communicate (send and receive information) over long distances.</li> </ul>	<ul style="list-style-type: none"> <li>● Asking questions and defining problems</li> <li>● Planning and carrying out investigations</li> <li>● Constructing explanations</li> <li>● Obtaining, evaluating, and communicating information</li> </ul>	<p>Background</p> <p>By the end of this unit, students are using the following language in their speaking and writing during EXPLAIN or ELABORATE:</p> <ul style="list-style-type: none"> <li>● Light</li> <li>● Sound</li> <li>● Loud</li> <li>● Soft</li> <li>● Vibration</li> <li>● Shadows</li> <li>● Visible</li> <li>● Emergency alert</li> <li>● Signal</li> </ul>