

<b>Science</b>	<b>SCI.IV.4.1</b>	<b>Grade: K</b>
----------------	-------------------	-----------------

**Strand:**            **Using Scientific Knowledge in Physical Science  
- Waves and Vibrations**

**Standard:**            **All students will describe sounds and sound waves**

**Benchmark:**            **Describe sounds in terms of their properties.**

**Constructing and Reflecting:**

**SCI.I.1.1** - Generate reasonable questions about the world based on observation.

**SCI.I.1.2** - Develop solutions to problems through reasoning, observation, and investigation.

**SCI.I.1.5** - Develop strategies and skills for information gathering and problem solving.

**SCI.II.1.1** - Develop an awareness of the need for evidence in making decisions scientifically.

**SCI.II.1.2** - Show how science concepts can be illustrated through creative expression such as language arts and fine arts.

**Vocabulary / Key Concepts**

Pitch:

- high
- low

Loudness:

- loud
- soft

**Context**

Sound from common sources:

- musical instruments
- radio
- television
- animal sounds
- thunder
- human voices.

<p style="text-align: center;"><b>Knowledge and Skills</b></p> <p>Sound energy travels in waves. Sounds have different properties: pitch (high, low) and loudness (loud, soft)</p> <p>Students will:</p> <ul style="list-style-type: none"> <li>• Describe sounds using pitch and loudness.</li> <li>• Analyze a variety of sounds.</li> </ul>	<p style="text-align: center;"><b>Resources</b></p> <p>Coloma Resources:</p> <p><u>Newbridge Early Science Program:</u> Big Book and Teacher's Guide:</p> <ul style="list-style-type: none"> <li>• <b><i>Sound</i></b></li> </ul>
<p style="text-align: center;"><b>Instruction</b></p> <p><b>Benchmark Question:</b> What are the properties of sound?</p> <p><b>Focus Question:</b> What are high and low pitch sounds?</p> <p>Teacher will provide a variety of glass bottles filled to different heights of water. Students will listen to, compare, and describe the sounds.</p>	<p style="text-align: center;"><b>Assessment</b></p> <p>None</p>

## **Teacher Notes:**

### **Describe sounds and sound waves.**

During the elementary grades, children should begin to describe and analyze their rich experiences with sounds. In particular, they should be able to distinguish sounds from the objects that make them. They need to understand that sounds exist in the air, and that they are separate from the objects that make them. Elementary students should learn that all sounds originate with some kind of vibrating object or substance.

As middle school students experience sound traveling through different media; they should identify other ways that matter can affect sound. Many students think of echoes only as sounds that repeat themselves in open spaces. They do not relate them to the movement of sound waves, nor do they understand that echoes are produced whenever sound waves bounce back (reflect) off large surfaces.