Unit 2 -Properties of Lights and Sound

Content Area: **Science**
Course(s): **Science 1**
Time Period: **Marking Period 1**
Length: **MP 1-2**
Status: **Published**

Essential Questions

- What is light?
- How does light travel?
- What is sound?
- What causes sound?
- What devices are used to communicate long distances?
- What tools can be used to design or build a device that uses light or sound to solve a problem of communicating over a distance?

Big Ideas

- Sound can make matter vibrate, and vibrating matter can make sound.
- Objects can be seen only when light is available to illuminate them.
- People use devices and senses to send and receive information.

Climate Change

K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

- Activity: In this unit, students will be able to design a stained glass window using parchment paper and tissue paper as they consider materials from the perspective of how much light they let through.
- Activity: In this unit, students will create a stoplight shaped illustration to communicate using light and color with their peers. Students will work in partnerships to develop a system of communication without sound.

Cross-Curricular Integration

Integration Area: English Language Arts

- W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to answer a question or write about a topic.
- SL.PE.1.1. Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

Activity: Students will design a way to deliver a secret message using a color code and flashlight. to Students will have collaborative conversations to make predictions. Students will recall information from the experiment to write and record their observations.

Diversity

Objective: Students will understand that Braille is a type of receptive communication.

Activity: Students will watch Braille Alphabet video and observe their name letters. Then students will copy their Braille letter dots onto paper. Finally, students will make raised glue dots on top.

CSDT Technology Integration

8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information

Activity: Students will use Pebble Go to learn about Light and Sound.

Resources

Primary Resources

- Mystery Science

Core

- Sounds and Vibrations: How Do They Make Silly Sounds in Cartoons? (Mystery Science)
- Sounds and Vibrations: Where Do Sounds Come From? (Mystery Science)
- What If There Were No Windows? (Mystery Science)
- Light and Illumination: Can You See In the Dark? (Mystery Science)
- How could you send a secret message to someone far away? (Mystery Science)
- How Do Boats Find Their Way In the Fog? (Mystery Science)

Supplemental

- Instrument Sound Lab
- Types of Communication Tools Activity