

Objective

By the end of this lesson, you will be able to describe common forms of energy and explore sound characteristics.

Materials and Prep

- Empty plastic bottles
- Rubber bands
- Small objects (e.g., beans, rice)
- Empty containers (e.g., jars, cups)
- String
- Pencil or pen

No prior knowledge is required for this lesson.

Activities

1. Create a Sound Shaker:

- Take an empty plastic bottle and fill it with small objects like beans or rice.
- Seal the bottle with a cap or tightly secure it with a rubber band.
- Shake the bottle and listen to the different sounds it makes.

2. Make a String Telephone:

- Take two empty containers, like jars or cups.
- Poke a small hole in the bottom of each container.
- Thread a string through the holes, making sure it is tight and secure.
- Hold one container to your ear and have your friend hold the other container to their mouth.
- Talk into the container and listen to how sound travels through the string.

3. Exploring Sound with a Pencil:

- Hold a pencil or pen gently against your desk or table.
- Tap the eraser end of the pencil and listen to the sound it makes.
- Now, tap the other end of the pencil and compare the sounds.
- Try tapping the pencil on different surfaces and observe how the sound changes.

Talking Points

- "Energy is what makes things happen. It can make things move, make sounds, and do work."
- "There are different forms of energy, like light energy, heat energy, and sound energy."
- "Sound is a type of energy that we can hear. It travels in waves through the air or other materials."
- "When we shake the Sound Shaker, the objects inside hit the sides of the bottle, creating sound waves that reach our ears."
- "With the String Telephone, sound waves travel along the string from one container to the other, allowing us to hear each other's voices."
- "When we tap the pencil on different surfaces, the sound changes because the materials vibrate differently and produce different sound waves."