

Good Vibrations (Grades K - 2) Pre-Visit Activities

Vocabulary List and Student Definition (elementary level):

- **Sound:** A kind of energy that you hear. Sounds are made when an object vibrates.
- **Vibrate:** To move back and forth quickly
- **Matter:** The material all things are made of. Matter can be a solid, liquid, or a gas.
- **Hearing:** One of the five human senses. Allows us to be aware of sound by vibrations in our ears.
- **Senses:** The way we tell what the world is like. The five senses are sight, hearing, smell, taste, and touch.
- **Inquiry skills:** A set of skills people use to find out information.
- **Hypothesis:** A possible answer to a question that can be tested to see if it is correct.

Teacher Background and Supporting Information

1. What is sound?
 - a. *Sound* is a form of energy, caused by *vibrations*. A vibration is a push or pull that shakes very fast.
 - ii. Sound travels in *waves* through *matter*.
 - iii. Sound can travel through different types of matter – solid, liquid, gas.
2. How do we interpret sound?
 - a. The sense of *hearing* provides an important source of information about the environment.
 - b. Our ears interpret sound through a system that transmits the information to our brain. The brain interprets this information and we are able to hear.
 - c. We make observations about the environment by using our *senses* – sight, hearing, touch, taste and smell. By experimenting with sound students will begin to understand that sound can be observed, measured, and controlled in various ways.
 - d. We form *inferences* from our observations. We can use these ideas to form a *hypothesis*, or tentative explanation about a question.

Student Activities:

1. Kinesthetic Activity: Have students stand up and shake back and forth while using their voices to make sound. Sometimes we can see the vibration, just like we demonstrated. Another good example of seeing vibrations is by plucking the strings of a guitar, rubber band, or using a slinky.
2. Sound Walk: Prior to the walk ask students the following question: What can we find out from the way something sounds? List their ideas on a sheet of chart paper that can be displayed. Then take the group on a walk around the block, school yard, or nearby park. Remind them that they should keep talking to a minimum during the walk because they will be using their sense of hearing to listen. There will be time to talk about their observations back in class. Challenge them to really focus on the sounds they hear during the walk. Once back in the classroom, allow students to share their observations. List the sounds on a new

sheet of chart paper (labeled Observations) to be displayed. Lastly, ask students to hypothesize about what made this sound?

3. Ask students to write or draw their observations from the sound walk.