

### Description

Can you see sound? You can't see it like you can see a table or a pencil, but there is a way to see what it does. Sound travels, and if it is powerful enough, it can actually move something in its path.

- Age: 2-6
- Time: 5 minutes to prepare, 5 minutes for results



### Learning Objectives

- Children will understand that sound is made when something vibrates or moves very quickly over and over again.

### Vocabulary

- Vibration: to bend or throw back
- Sound waves: a wave that is formed when a sound is made and that moves through the air and carries the sound to your ear

### Materials

- ½ gallon plastic ice cream or yogurt tub
- Clear plastic bag
- Safety scissors
- Large rubber Band
- Crispy rice cereal
- Metal pan lid
- Mixing spoon

### Implementation

#### Introduction

Ask your child or children if they think they can see or feel sound. They may tell you that you hear a sound, not see or feel it. This would be a good time to review the 5 senses and tell them that you will show them a special trick that will allow them to see sound.

#### Procedure

1. Cut open the bag to make a plastic sheet. Pull it tightly over the top of the tub as your grown-up assistant secures it with a rubber band. Pull it so the drum skin is tight. Set crispy rice cereal on top.
2. Hold the lid close to the drum. Bang it sharply and rapidly with the spoon.
3. Look at the cereal.

#### Questions to Prompt Inquiry

1. What do you see?
2. What do you think makes the cereal dance?
3. What happens when we bang quieter on the lid and do you notice something different when you bang louder?

## Conclusion

Sound is simply tiny back and forth movements called vibrations. They travel from the spot where the sound is made, through the air, and to your ear. How do you hear the buzz of a bee? The bee's wings move quickly and back and forth causing the nearby air to move back and forth too. The vibrating air travels and shakes a part of your ear called the eardrum. Those vibrations become a message that goes to your brain to be figured out. It's as if your brain says, "That vibration is a bee buzzing. Watch out!"

## Tips and Suggestions

### Activity Extensions

- Toss a pebble in a puddle or a large bowl of water. Notice the water's ripples spreading outward in circles from where the pebble landed. That is very much the way the vibrations spread outward from where a sound is made.
- Decorate an empty toilet tissue roll. Punch a hole about an inch from one end. Secure a small piece of waxed paper over the other end of the roll with a rubber band. Hum or sing into the open end. How does it sound?

### Adapting to Home/Classroom/Public space

This project can be very loud, so it may be preferable to do it outside than in a small enclosed area.

## Learn More!

- a. Links to learn more:

<https://kidsactivitiesblog.com/14753/teaching-kids-how-sound-is-made/>

<https://littlebinsforlittlehands.com/water-xylophone-sound-science-experiment-kids/>

Free downloadable unit: Sounds and Vibrations, 1-PS4-1

<https://www.stemtradingcards.org/unit-4-1s1-2>

- b. Reading recommendations: This experiment came from the book Science Play! Beginning Discoveries for 2-6 year-olds by Jill Frankel Hauser. Check out this book from your local library for more fun science projects to do at home or school.

