

sound



Monday: What is sound?

We will learn that sound is an energy source created by vibrations.

I will discuss and record how vibrations create sound. I will conduct an experiment with vibrations and sound.

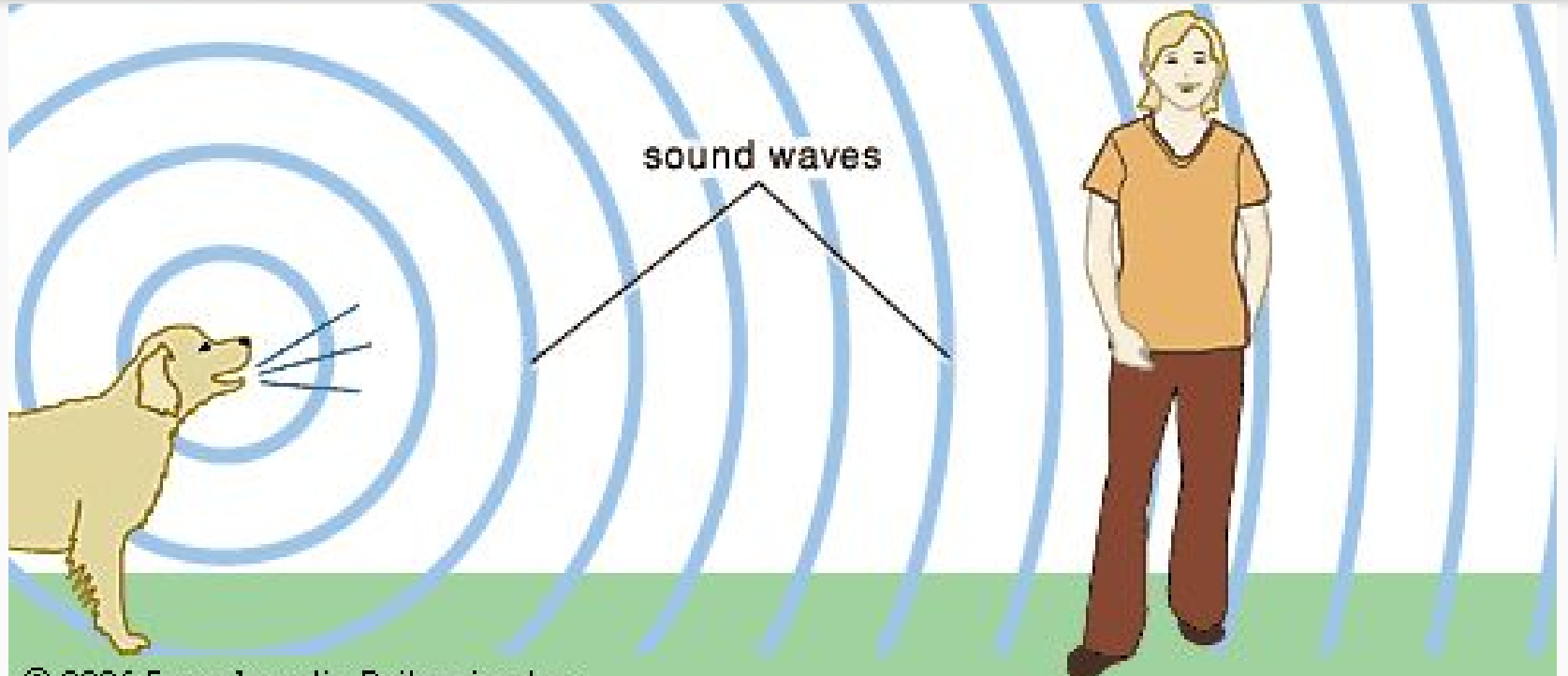
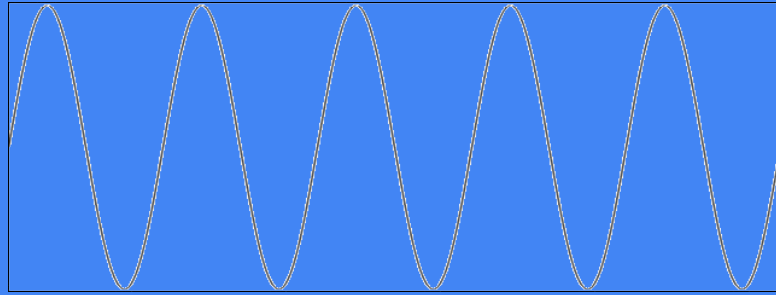
State Standard: 2.P.1 Understand the relationship between sound and vibrating objects.

ounds are made
by small movements
called **vibrations**.
When you hit a drum,
you make its surface
vibrate. This makes the
air next to the drum
vibrate. You can't
see the vibrations,
but they move away
from the drum in all
directions. Vibrations
that move through
the air are called
sound waves.



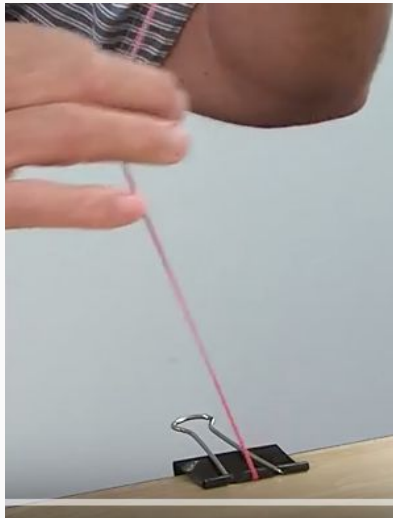
Sound waves enter your ears. They make small bones and other parts inside your ear vibrate. These vibrations inside your ear send messages to your brain. You hear sounds when

Sound Waves Wavelengths



Experiment on Your Own: Feel the Vibrations that Make Sound

<https://youtu.be/VYMRRaKMntY>



Talk About it / Record it

What is sound?

What makes sound?

What does sound feel like?

Draw and label a diagram of your experiment. Add labels.

Experiment with a Group: Seeing Sound Vibrations

<https://youtu.be/BoeDI-YkzI0>

Experiment Groups:

Mykala, Ayla, and Wendy

Brooke, Seth, and Ashley

Jay'lin, Hyle, and Angely

Canaan, Dallelyn, and Kamiah

Dominic, Sebastian, and Savannah

Triston, Jessica, Estefany, and



Talk About it / Record it

Why did the sprinkles move?

What happens when you move the sound closer to the bowl?

What happens when you move farther from the bowl?

Draw and label a diagram of your experiment. Add labels.

Tuesday: What causes sounds to be loud or quiet?

We will learn the loudness of a sound is called volume. Volume is measured in decibels.

I will discuss and record how volume works. I will conduct an experiment with volume.

Volume



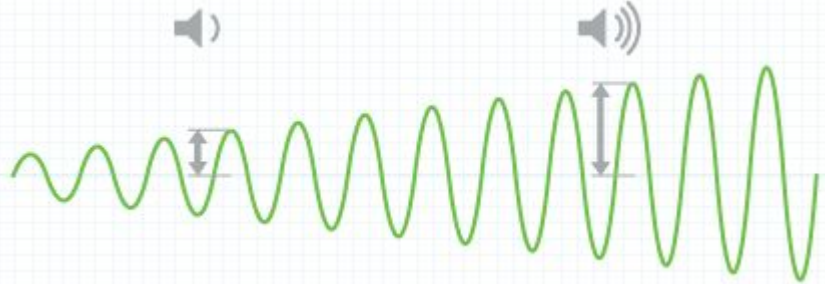
Sounds can be quiet or loud. When you whisper, you gently push a small amount of air over your vocal cords. The vibrations make a quiet sound.



When you shout, you push a lot of air very hard over your vocal cords. This makes bigger vibrations. Bigger vibrations make a louder sound.

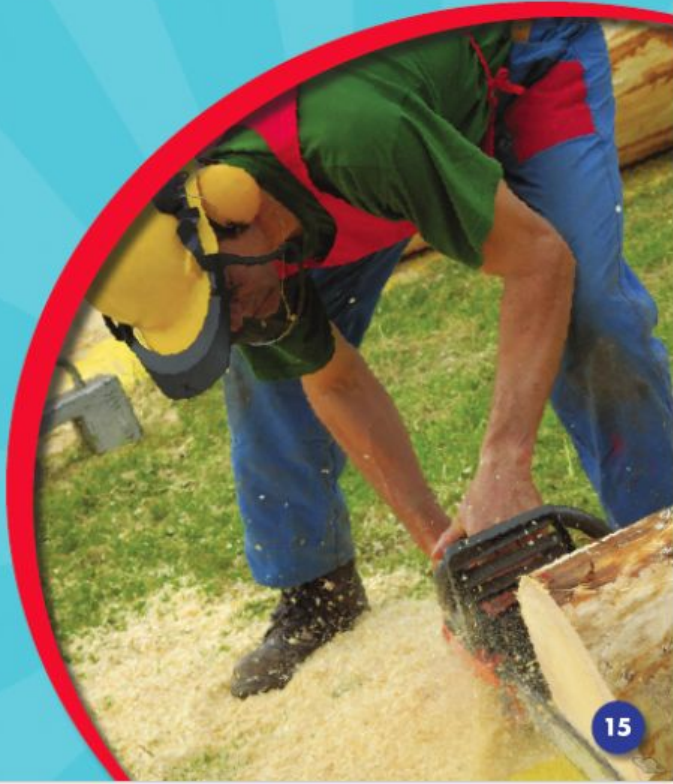


Decibels



The volume of sounds can be measured in **decibels**. Rustling leaves measure around 10 decibels. Normal talking measures around 35 decibels.

A chainsaw at work measures around 110 decibels. A sound that loud can damage your ears. Workers wear earplugs to protect their ears from loud sounds.



Experiment: Cup Telephone

https://youtu.be/LjLiQ_DIFNY

Mykala, Ayla, and Wendy

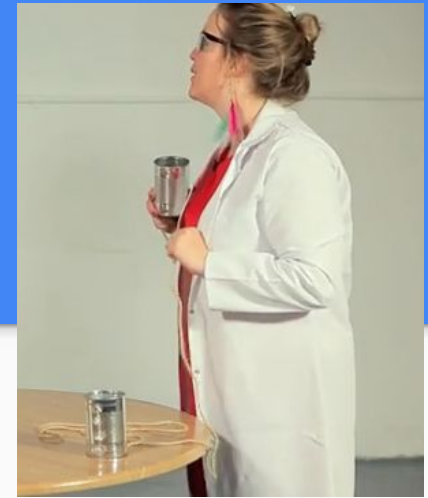
Brooke, Seth, and Ashley

Jay'lin, Hyle, and Angely

Canaan, Dallelyn, and Kamiah

Dominic, Sebastian, and Savannah

Triston, Jessica, Estefany, and



Talk About it / Record it

What happens when you speak into the cup with a quiet volume? Think about how much air this took, and how it felt coming out of your mouth.

What happens when you speak into the cup with a loud volume? Think about how much air this took, and how it felt coming out of your mouth.

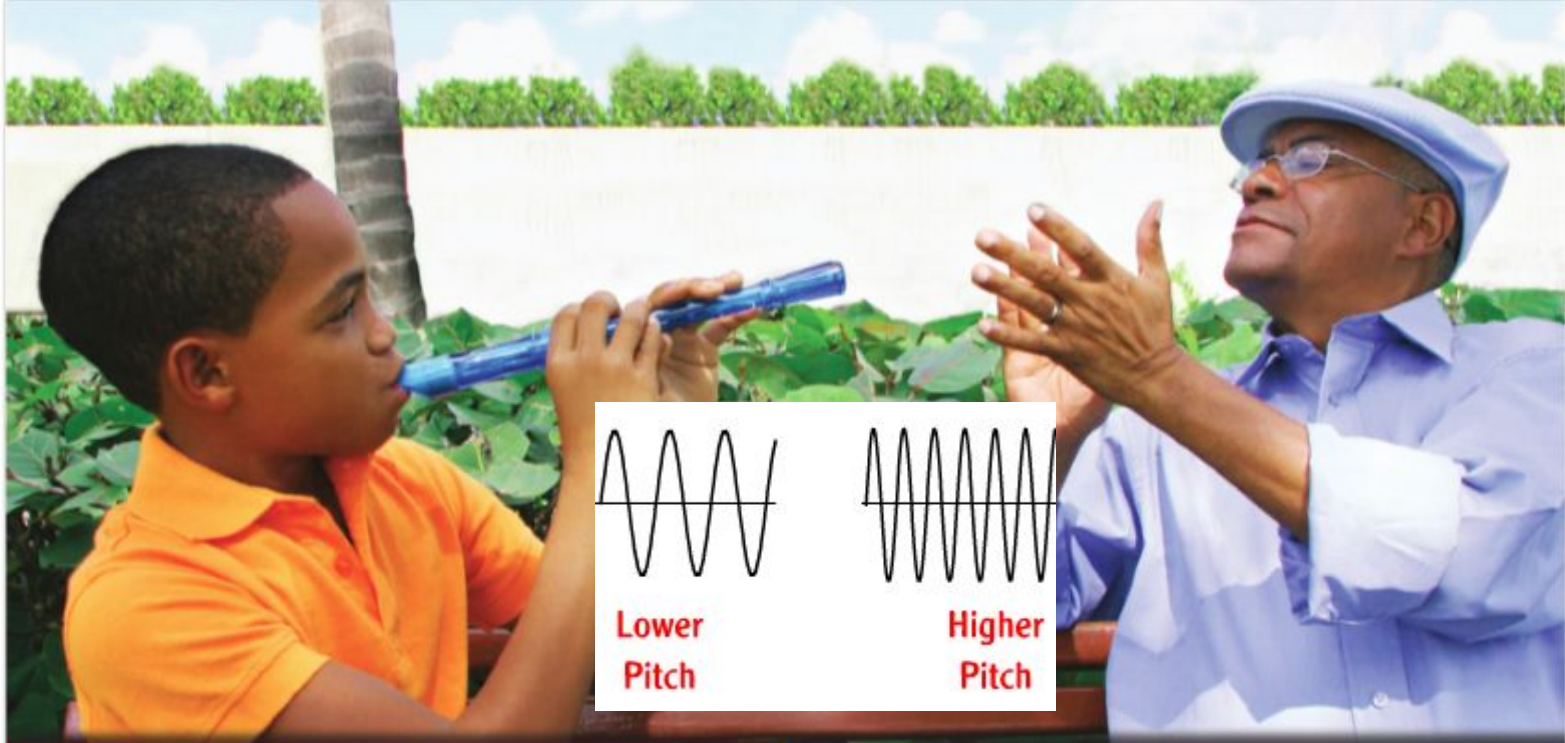
Draw and label a diagram of your experiment. Add labels.

Wednesday: What causes sound to be high or low?

We will learn that how highness of a sound is called the pitch.

I will discuss and record how pitch works. I will conduct an experiment with pitch.

Pitch



All sounds are different, but they all start with vibrations. Strumming guitar strings makes the strings vibrate. Blowing into a recorder makes the air vibrate inside the recorder.

Some vibrations move faster than others. Faster vibrations have a higher **pitch**. A recorder makes a high-pitched sound.

Experiment: Pitch

<https://youtu.be/VYMRRaKMntY>

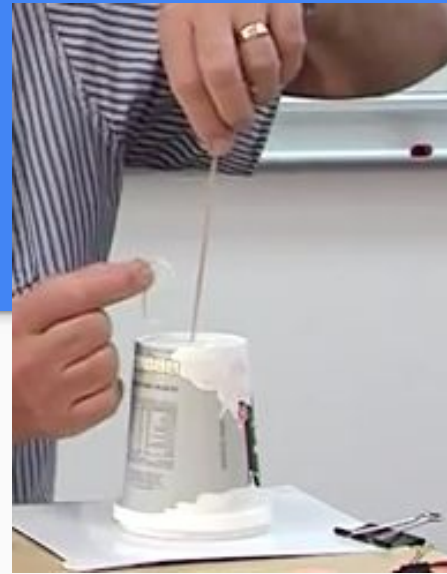
Experiment Groups:

Mykala, Ayla, and Wendy

Brooke, Seth, and Ashley

Jay'lin, Hyle, and Angely

Canaan, Dallelyn, and Kamiah



Dominic, Sebastian, and Savannah

Triston, Jessica, Estefany, and

Talk About it / Record it

What happens when you pull the rubber band tight?

What happens when the rubber band is loose?

What happens with a thick rubber band?

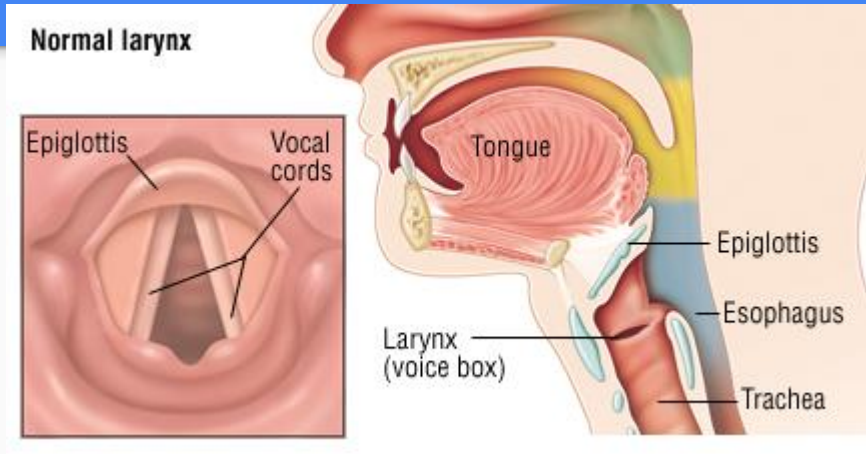
What happens with a thin rubber band?

Draw and label a diagram of your experiment. Add labels.

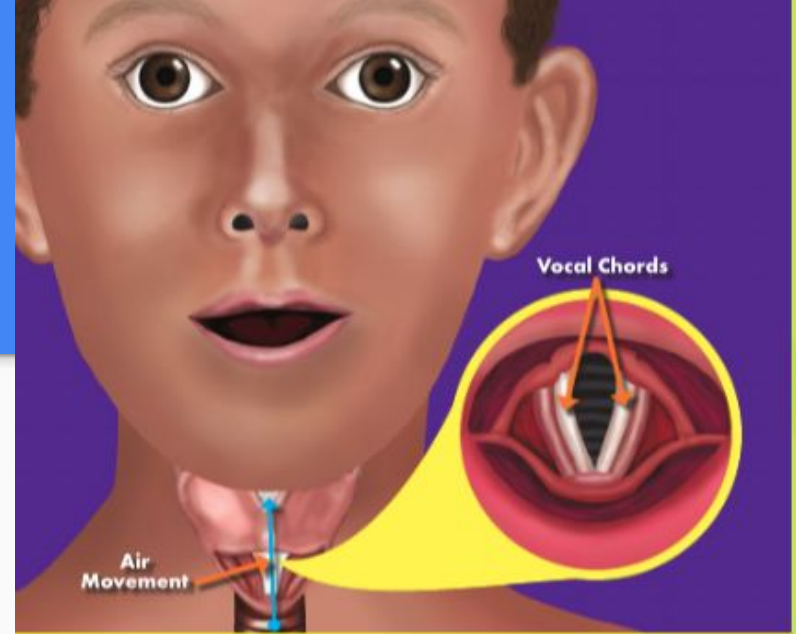
Thursday: How do people make sounds?

We will learn how vocal cords work.

Vocal Cords



<https://youtu.be/-XGds2GAvGQ>



The sounds you make start with vibrations too! You have a **voice box** inside your neck that holds **vocal cords**. When you talk or sing, you force air from your lungs through your voice box. The forced air makes your vocal cords vibrate.

Friday: How do people hear sounds?

We will learn how ears works.

Ear: 3 parts

<https://youtu.be/HMXoHKwV>

