



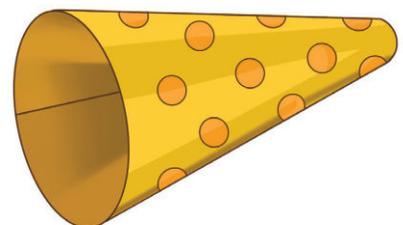
? Essential Question

Where does sound come from?

Chapter Project

A megaphone is a tool that can change your voice. It can make your voice louder. Build a megaphone out of paper using the steps below.

1. Color a design on your paper.
2. Place the design side facing down. Roll your paper into a cone shape.
3. Glue or tape the edges together.
4. Cut the top and bottom of the megaphone to make the edges even.
5. Test your megaphone. Can your classmate hear you from the far end of the room?



Lesson
1

Describe Sound Properties

Key Terms

sound sound source sound wave vibration

Recall

1. You use your ears to _____.
2. You use your hands to _____ things in your environment.
A feel B see C smell ()

Engage



Fireworks!



Scan
this
page!

1. What is in the picture?
2. Do you think it is loud or quiet?
How can you tell?
3. What will happen after the fireworks end?



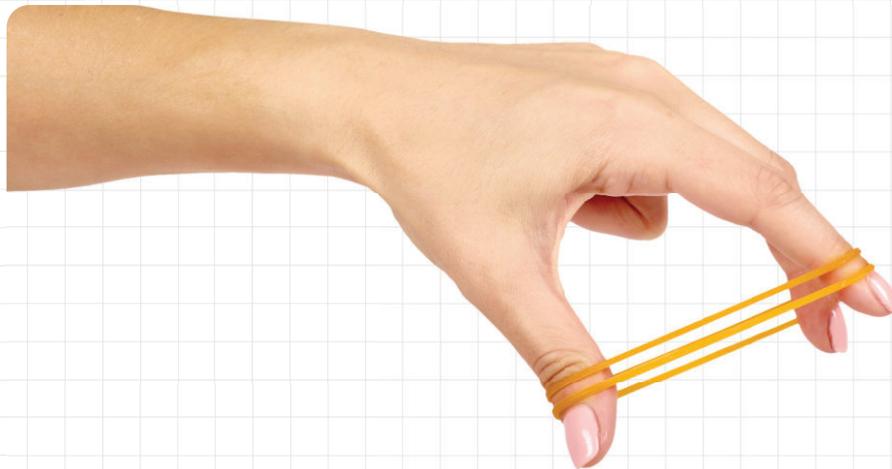
Stretchy Fun!

In **Engage**, you learned that there are many sounds people can make.

Now, you will **Explore** how you can see and feel sounds.

1. Work in pairs.

Stretch a rubber band between two of your fingers.



2. Pluck the rubber band using your other hand.
3. Record what you hear and feel in the table.
4. Move your fingers to stretch the rubber band tighter.
5. Repeat steps 1 to 4.

	Sound	Rubber band movement
Trial 1	Yes / No	Fast / Slow
Trial 2	Yes / No	Fast / Slow

How did the sound change?



What Is Sound?

In **Explore**, you applied force to a rubber band to make sound.

Sound is all around us.

It comes from sound sources.

A **sound source** is anything that makes sound.

Sound is a type of energy.

When energy is not being used, there is no sound.

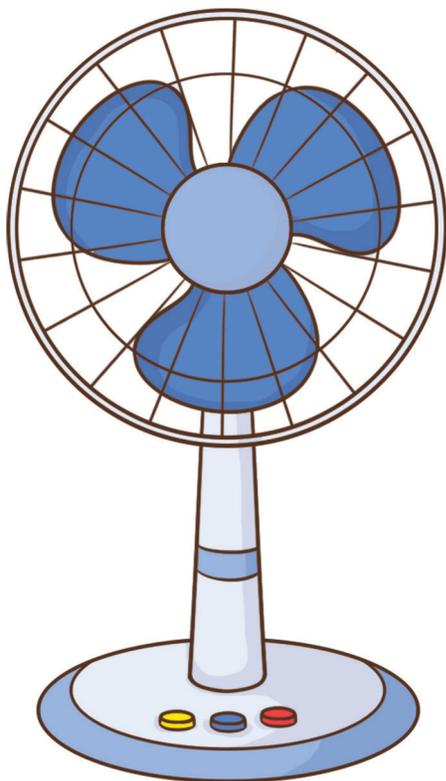
When the fan is turned off, there is no energy used.

So, there is no sound.

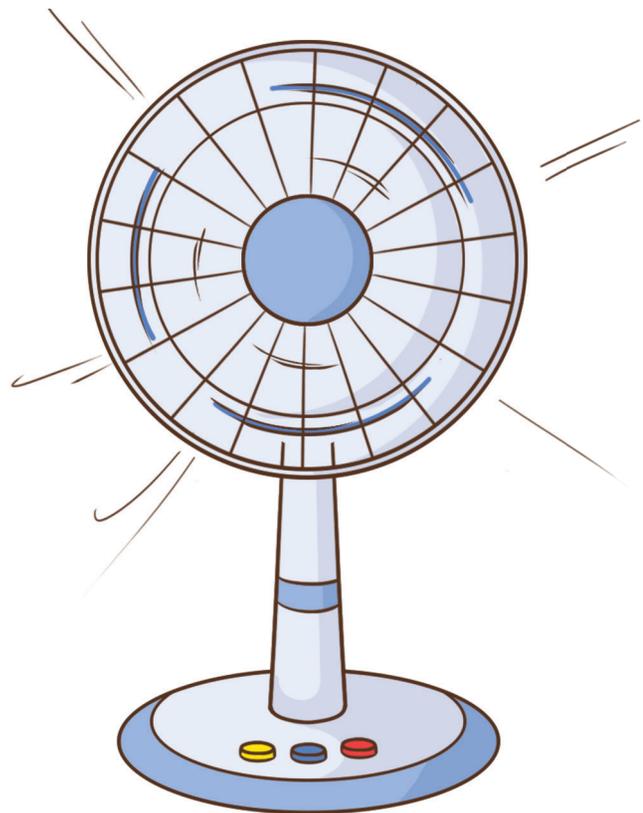
When the fan is turned on, it starts using energy.

The fan makes a humming sound.

This sound is sound energy.



off



on

Sound is all around us!
You hear sounds when you greet each other.
You hear sounds as cars drive by.
You even hear sounds from birds in the sky.

 **Check Your Understanding**

Tick (✓) the object that could make a sound.



How Do We Hear Sound?

Have you heard your classmate talking from far away?

How did you hear your classmate?

Sound travels through the air into your ears.

Sound travels in **sound waves**.



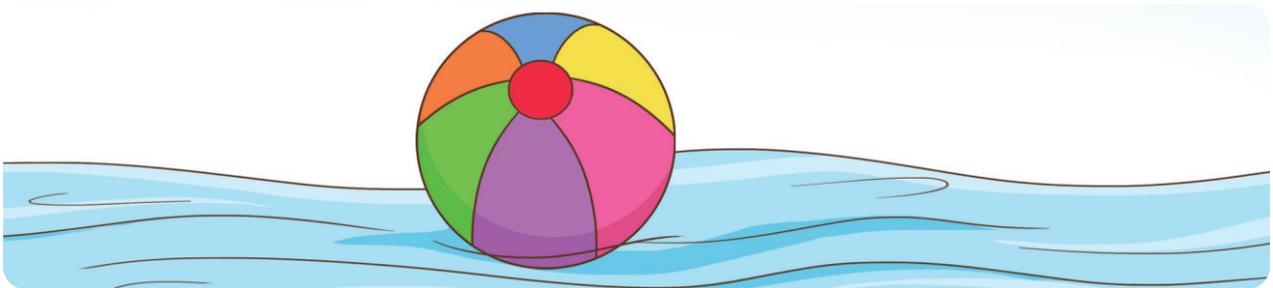
You have seen waves at the beach.

Water waves move up and down.

The picture below shows the ball moving along with the water waves.

Water waves move the ball from one spot to another.

Sound waves move in the same way.



Check Your Understanding

Circle **True** or **False**.

Sound travels through waves.

True or False

How Does Sound Travel?

In **Explore**, you observed the rubber band move back and forth.

All sounds are made the same way.

Sound waves are made by **vibrations**.

A vibration occurs when an object moves back and forth very quickly.

You cannot always see them, but you can feel them.

When you talk, you can feel the vocal cords in your throat vibrate.



Try It!

Explore the different sounds and vibrations you can make!

1. Pick three objects from your table.
2. Place one hand on the table.
3. Tap each object on your table using the other hand.
4. Tap each object again using more force.
5. Tap each object again using less force.

Did you feel the vibrations?

How did the force used change the vibrations?

✓ Check Your Understanding

Tick (✓) the picture that shows vibrations being made.

