

Subject: Science

Activity - Sound travels through solids

Chapter- Sound

Class: VIII

Duration: 30 minutes

Nature of the activity: Group

Learning Outcome: Students will be able to experience that sound travels through solids.

What we have to do?

To show that sound travels through solids

What do we require?

2 Thermocol Cups, Long thick thread (about 20 meters long) and A Pin to make holes.

What you need to know?

Sound is a form of energy propagated by the vibration of particles. When an object vibrates, the air in the vicinity vibrates. This propagation of sound waves continues until it is unable to produce vibration in the surrounding medium.

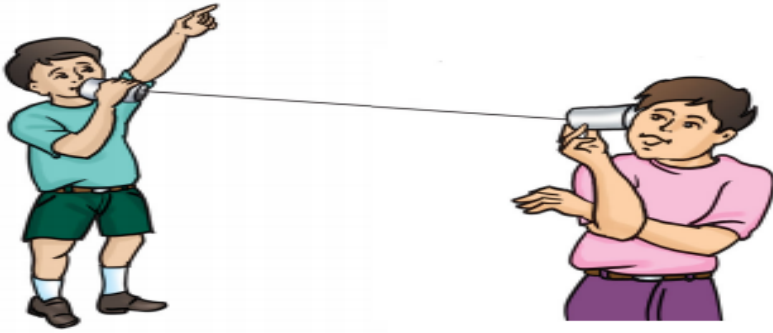
How do we proceed?

- **Teacher's activity:**

Teacher will arrange activity kits with the above mentioned material and will give instructions to the students for the activity.

- **Student's activity:**

1. Take two cups and make a small hole in the centre of its bottom with the help of a pin.
2. Pass one end of the thread into the hole of one of the cups and hole it inside the cup by tying a knot.
3. Similarly, pass the other end of the thread through the second cup and again hold it inside the can by tying a knot.
4. The two cups connected by the long thread can be held by two children stretched tightly at a distance as far as possible.
5. Now, one child will speak in one of the cups and the other child will place the cup held tightly to one of his ears.
6. Similarly, the above step will repeated by the child holding the cup tightly to his ears.



What do we observe?

The sound is travelling from the _____ of one person to the _____ of the other person.

What have you learnt?

Sound is travelling through _____.

Sounds needs a _____ for its propagation.

What more can we do?

Repeat the same activity taking Metal Cans instead of Thermacol Cups and similarly take a copper wire to connect the metal cups instead of a thread and record your observations.

EXTENDED LEARNING WORKSHEET:

1. How does sound gets propagated?

2. What will happen if we put a ringing bell in a tumbler consisting of water? Are we going to hear any sound?

3. Will the sound travel faster or slower in Water than in solids?

4. What will happen if a ringing bell is kept in a Bell Jar with vacuum?

5. Ram saw a cracker burst at night at a distance from his house. He heard the sound of the cracker a little later after seeing the cracker burst. Give reason for the delay in hearing the sound.
