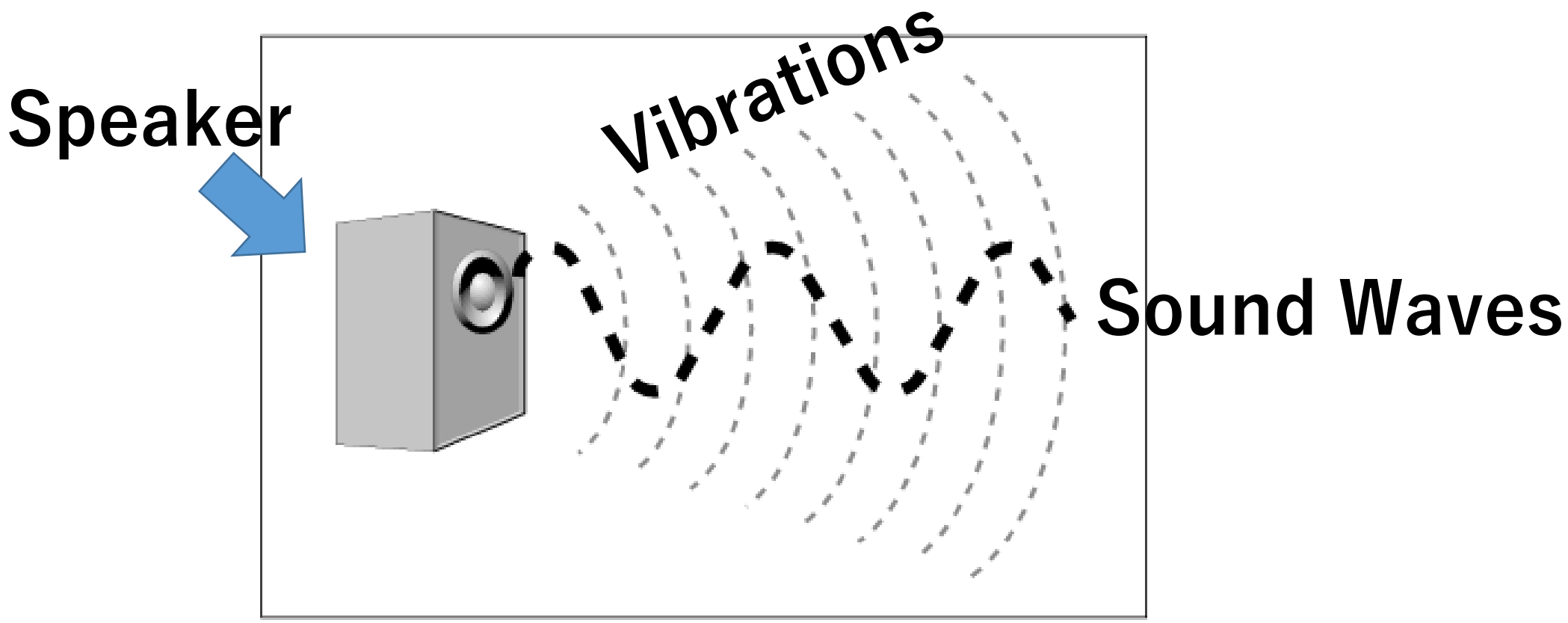
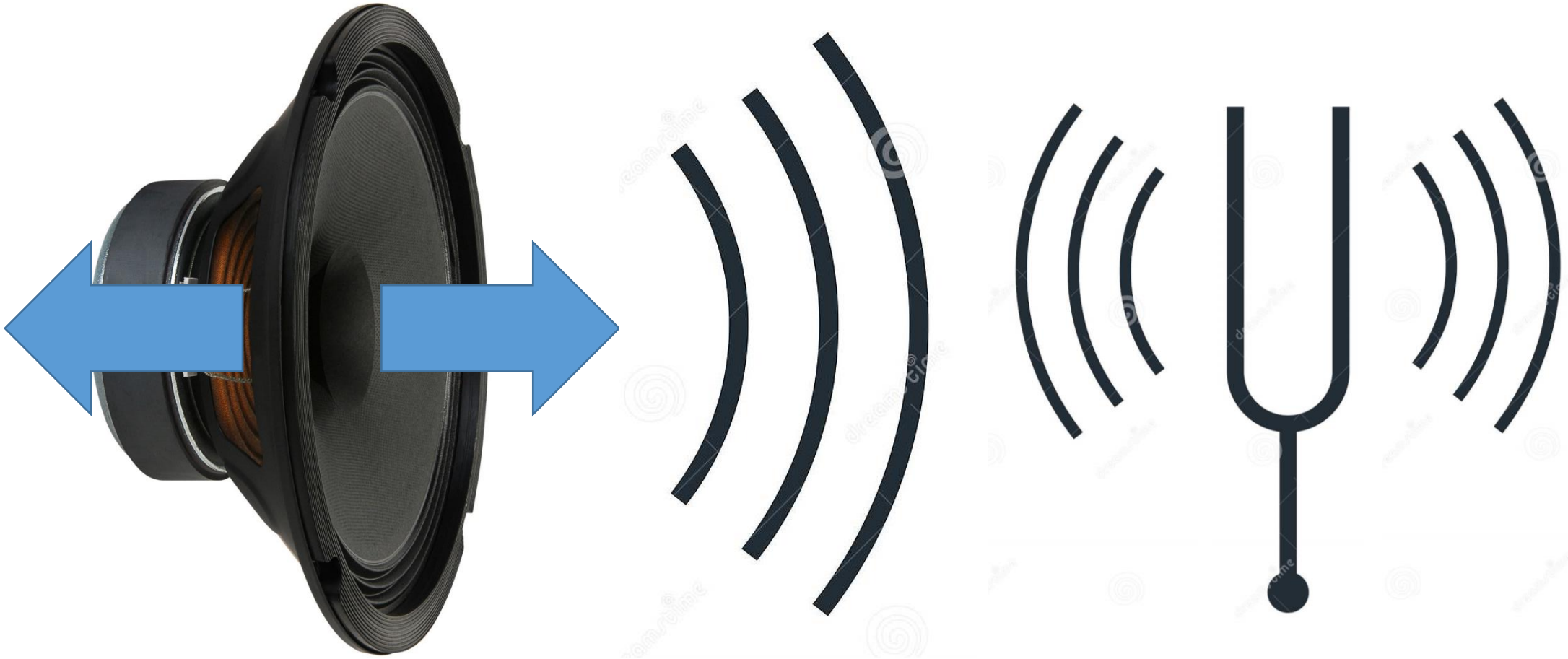
Activate 1.
2.2 Sound and energy transfer
Page 126-127

Vibrations



Moves backwards and forwards or vibrates.



What does sound travel through.

Medium

Metal

Liquid

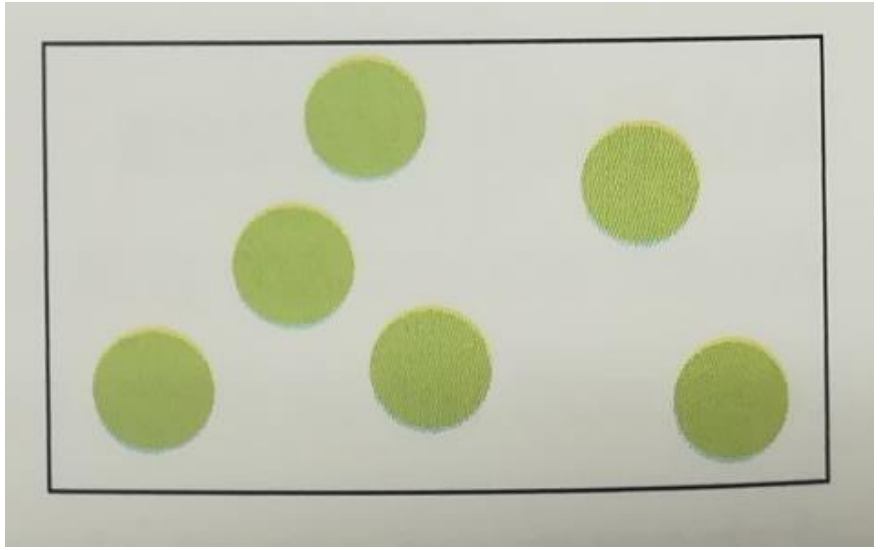
Gas

Vacuum

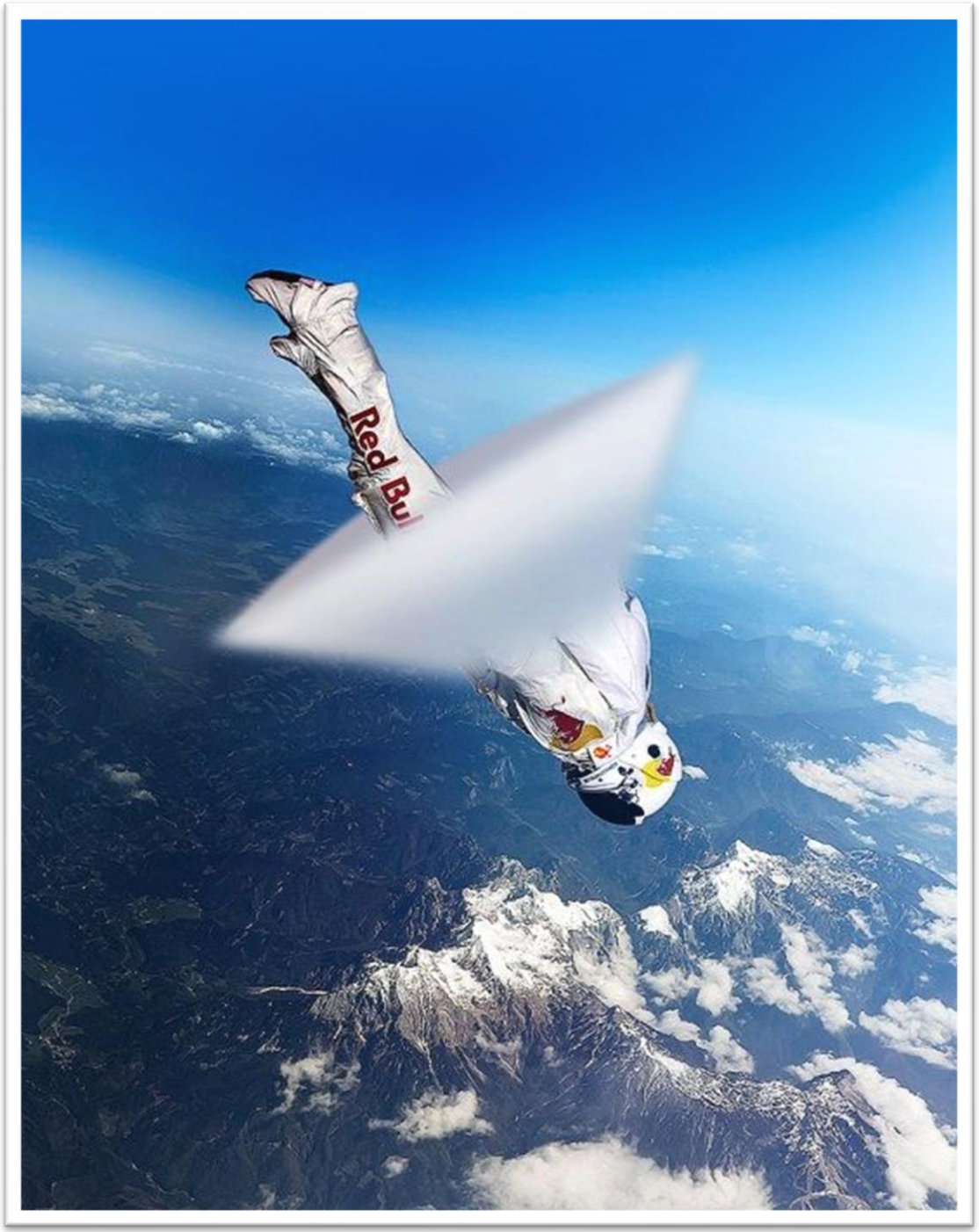
No air molecules to vibrate.

Sound travels at

340m/s in air.

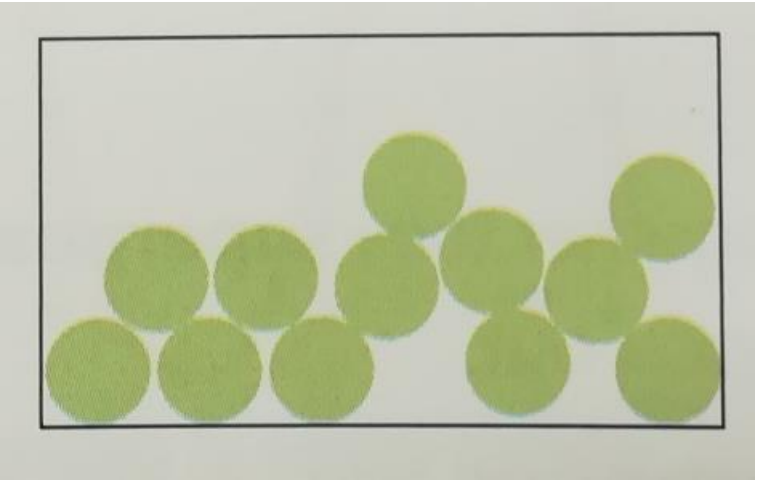


Air particles.



Sound travels at

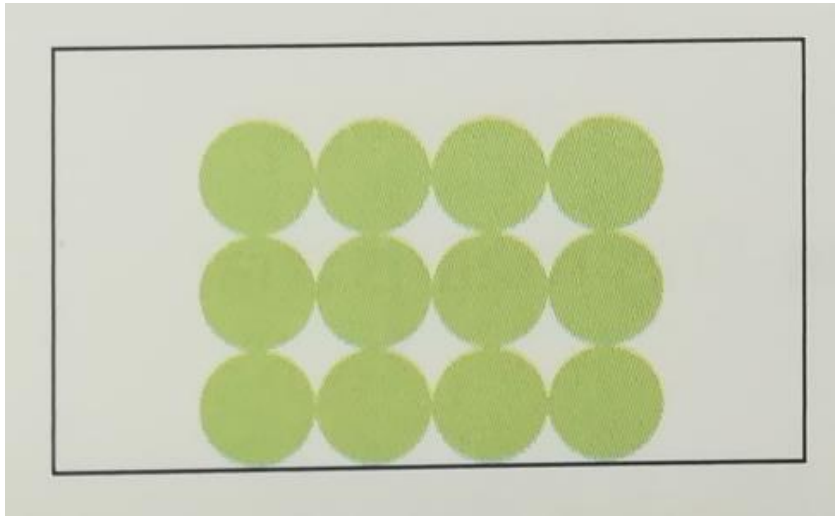
1500m/s in water.



Liquid particles.

Sound travels at

5000m/s in metals



Solid particles.

The speed of sound

The speed of light.

What is a sound wave?

1. A [redacted] produces a sound wave.

What is a sound wave?

2. This makes the air [redacted] move backwards and forwards which produces a sound wave.

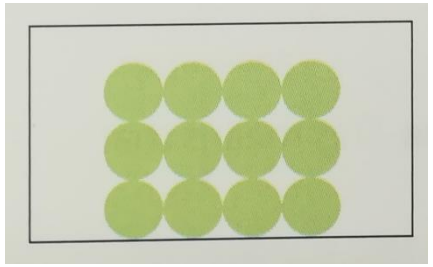
What does sound travel through?

3. Sound needs a [ ] like a [ ], [ ] or [ ] to travel through.

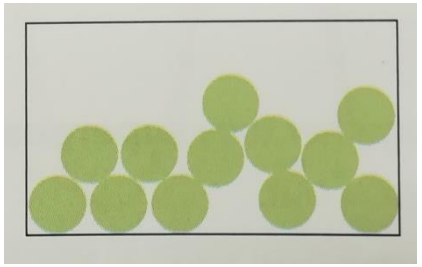
What does sound travel through?

4. It cannot travel through empty space, a [redacted], because there are no air molecules to vibrate.

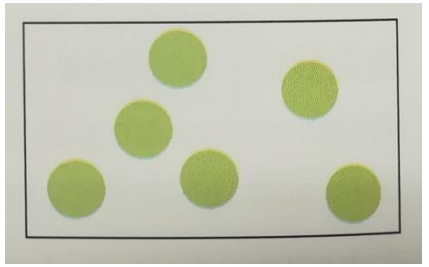
How fast does sound travel?

A. 

m/s

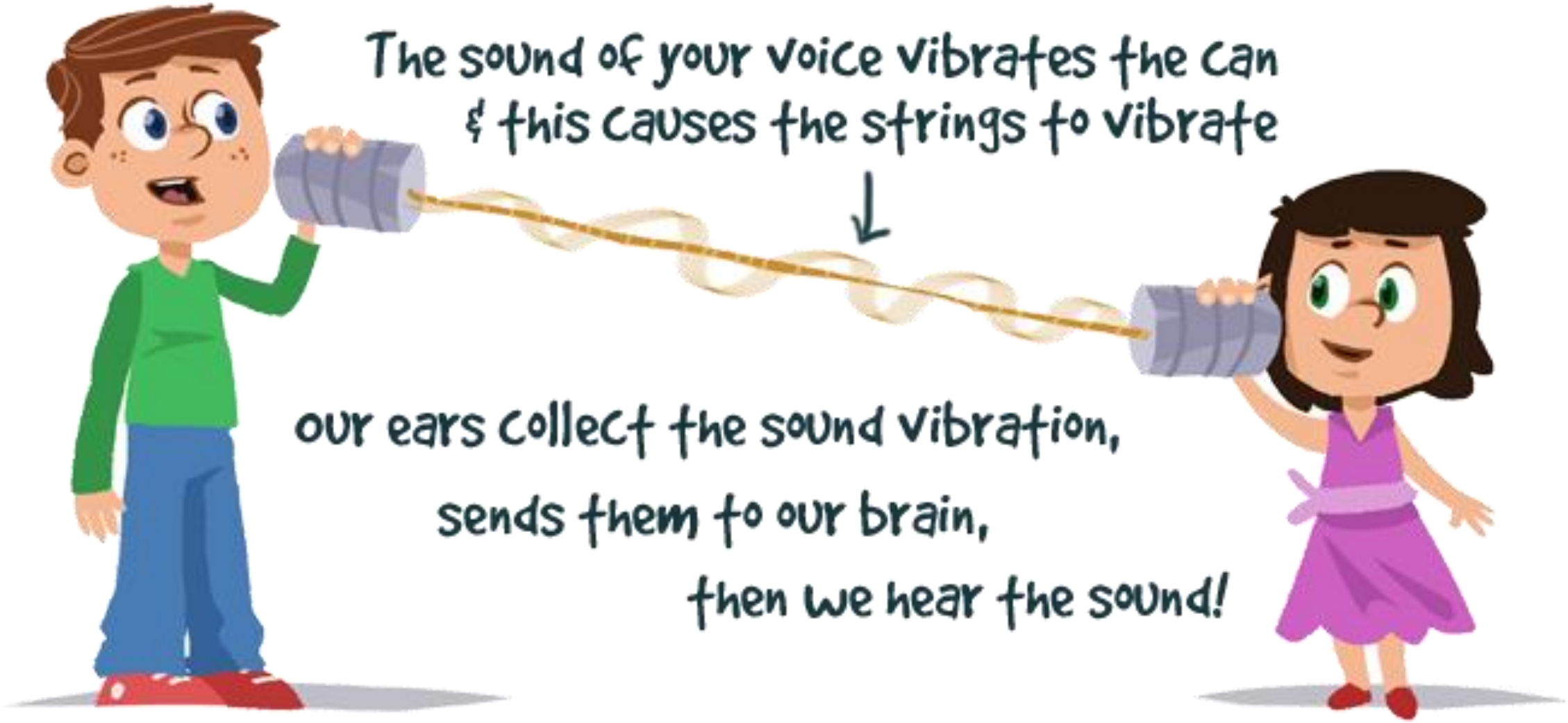
B. 

m/s

C. 

m/s

String Phone Experiment



Group work

- 4 Students per group.
- 10 groups.

Experiment – Ask these questions on the phone.

1. How well do these cups **vibrate** to **produce** sound?
2. How well does **sound waves** travel through **“medium”**?
3. Is **communication** better if the “**medium**” is **taut** or **lose**?

Scoring.

Excellent – 5 Points

Good – 4 Points

OK – 3 Points

Bad – 2 Point

Terrible – 1 Point

Group Evaluation.

What is the **best combination** for communication. (Cups, medium, taut or loose.)

What is the **worst combination** for communication. (Cups, medium, taut or loose.)

Share your results.

- We are Group **1.**

- We think combination **“D”**, **paper cups** with **taut/loose bungee cord** is the **best** for communication.

- We think combination **“A”**, **paper cups** with **taut/loose cotton** is the **worst** for communication.

- Thank you.