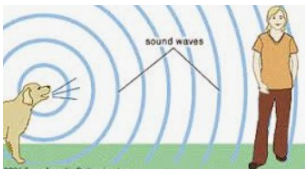
Year 4 Science — Sound — Spring 2

Key Learning

Key Vocabulary

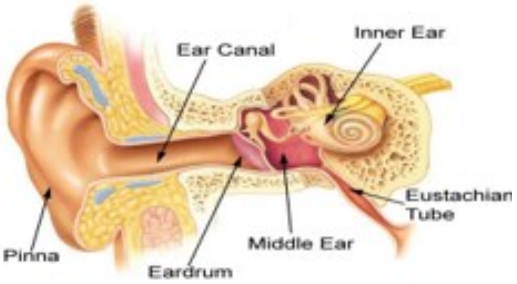


When objects **vibrate**, a sound is made.
The **vibrations** make the air around the **source** vibrate and the air vibrations travel to your ear.

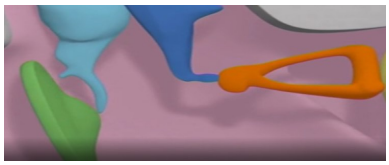
These are called **sound waves.**

Sound waves travel through different mediums, including solids, liquids and gases.

They do not travel through a **vacuum.**



Hammer Anvil Stirrup

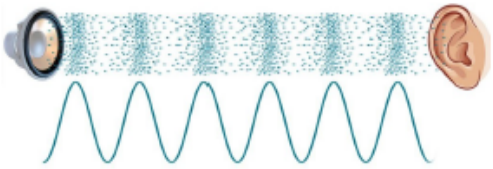


Eardrum

amplitude	The size of the vibration. A measure of the strength of the sound wave.
frequency	The number of vibrations in a minute.
insulator	Material used to block sound
medium	Materials that allow sound waves to travel : solids, liquids and gases.
pitch	How high or low a sound is.
sound wave	A series of vibrations which form an invisible wave.
source	Where the sound comes from. The source will produce vibrations.
vacuum	A space where there is no air
vibration	Something moving backwards and forwards very quickly.
volume	How loud or quiet a sound is. This is based on its amplitude.

How do we hear?

The sound waves travel to the ear and make the ear-drums vibrate. Messages are sent to the brain which recognises the vibrations as sounds.



Volume

The volume of a sound is how loud or quiet it is.

Quieter sounds have a smaller **amplitude** and less energy. Louder sounds have a larger amplitude and more energy.

The closer we are to a sound source, the **louder** it will be.

A train arriving at a station sounds loud

The further away from a source of sound, the **fainter** it will be.

A train in the distance sounds quieter

Insulators muffle sound.

Pitch

The pitch of a sound is how high or low it is.
A squeak of mouse has a high pitch
A roar of a lion has a low pitch.

A high pitch sound is made because it has a high **frequency.** The sound source vibrates many times per second.