



Sound

Useful Vocabulary

Vibrations- Sounds are made when objects *vibrate*. The *vibrations* enter your ear and you hear them as sound.

Medium - Material

Volume - How loud something is.

Ear - The organ of the human body that detects vibrations and turns these into sound.

Matter—Another word for the stuff that things are made from. Everything around us is matter.

Pitch - How high or low the sound is. High pitched sounds vibrate faster, low pitch sounds have slow vibration.

Vacuum - A vacuum is **a space with nothing in it**—not even air. Sound cannot travel through a vacuum as there is no energy or matter for it to vibrate.

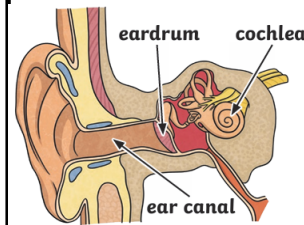
SOUND

Sound is a type of energy. Sounds are created by vibrations and the louder the sound, the bigger the vibration.

Sound can travel through solids, liquids and gases. It travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.

Sound energy can travel from particle to particle far easier in a solid because the vibrating particles are closer together than in other states of matter.

The Ear

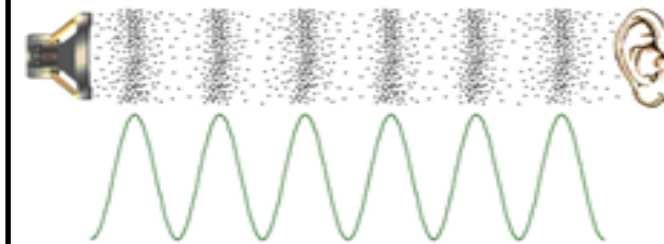


We detect sounds because inside our ears we have parts that work together to turn sound waves into a signal that is sent to our brain.

The components of the ear that make this possible are:

- The **eardrum**: A thin flap of skin that is stretched tight like a drum.
- The **ear bones**: Three small bones called the hammer, anvil and stirrup.
- The **cochlea**: A spiral shaped part of the ear that looks a bit like a snail shell.

How is sound made?



Vibrations create sound waves and these are detected by the ear. Changing the shape of your mouth changes the speed of the vibrations, making different sounds.

Sound Over Distance

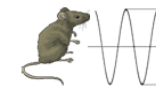
The closer a sound source is, the louder it will be. It is easier to hear someone talking when they are near you than when they are at a **distance**. This is because the sound loses energy over a **distance**.



Pitch

Pitch is a measure of how high or low a sound is.

A squeak from a mouse is a high-**pitched** sound and this means it **vibrates** quickly.



The sound of a lion's roar has a lower **pitch** and **vibrates** slowly.

