

Linked scientists

Alexander Graham Bell – Scottish scientist who invented the telephone in 1876

Key Vocabulary

amplitude	how the strength of a sound wave is measured
decibel	Unit in which sound is measured
electricity	Form of energy usually carried by wires and used to power devices
frequency	How many times per second the sound wave cycles
insulation	Material that is used to stop electricity, heat or sound passing through
loud	Very high volume
medium	Substance through which energy is transferred. Sound can be transmitted through different mediums – solids, liquids or gases
pitch	how high or low a sound is and depends on the speed of the vibrations
sound	Type of energy made by something vibrating
sound waves	Invisible waves that travel through air, water or solids as vibrations for us to hear sound
source	Where a sound comes from
vibrate	When something moves back and forth, or up and down and a sound is produced.
vibrations	Sounds are made from the energy caused by vibrations
volume	The loudness of a sound

What I will know by the end of the unit

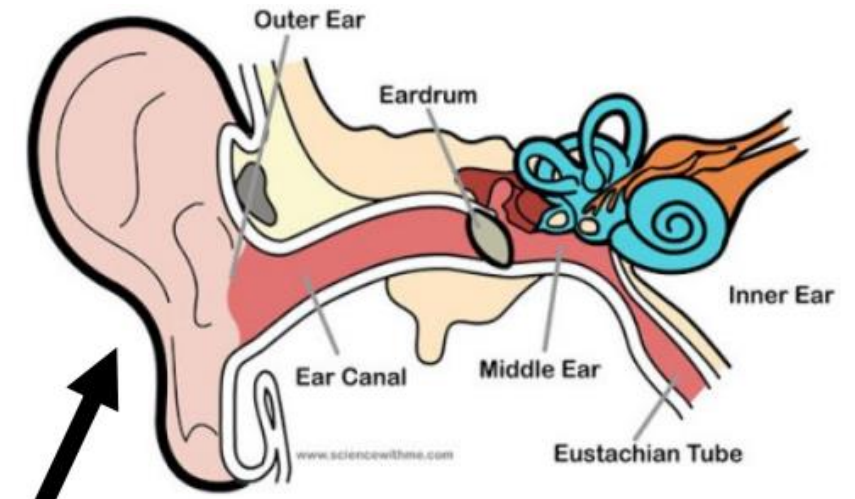
How sounds are made



Sounds can be heard when something vibrates. The vibration causes air around the object to move (vibrate) and the vibrations then pass to the next air particle.

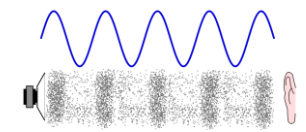
This carries on until the air particles closest to your ear vibrate, passing the vibrations into your ear, changing to electrical signals that are sent to your brain.

Vibrations are invisible – we can't see them, we can only hear them.



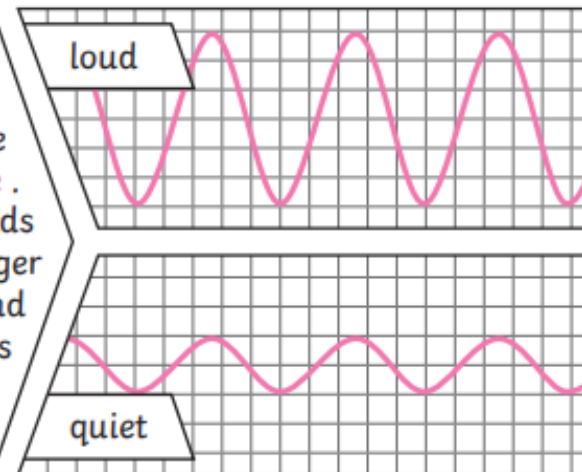
How sounds travel

Vibrations travel in a wave pattern called sound waves. The waves travel through mediums (solids, liquids or gases) to the ear. The louder the sound the stronger the vibration



How sounds change

The size of the **vibration** is called the **amplitude**. Louder sounds have a larger **amplitude**, and quieter sounds have a smaller **amplitude**.



The further away the sound is, the fainter the sound gets.

Pitch is a measure of how high or low a sound is. A whistle being blown creates a **high-pitched** sound. A rumble of thunder is an example of a **low-pitched** sound.



