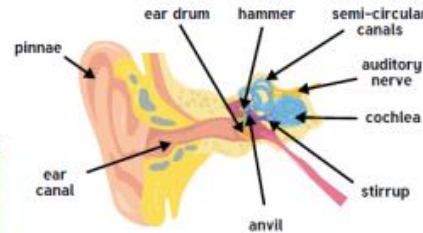




SOUND

What is sound?

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

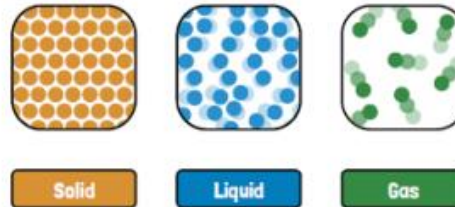
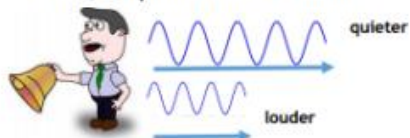


Pitch is a measure of how high or low a sound is. A whistle being blown creates a high-**pitched** sound. A rumble of thunder is an example of a low-**pitched** sound.



Volume:

- The closer you are to the **source** of the sound, the **louder** the sound will be.
- The further away you are from the **source** of the sound, the **quieter** the sound will be.



The vibrations caused by the sound can travel through the air (gas) but can also travel through liquids and solids.

Key words

vibration	A movement backwards or forwards
sound wave	Vibrations travelling from a sound source
volume	The loudness of a sound
amplitude	The size of a vibration. A larger amplitude = a louder sound
pitch	How high or low a sound is
particles	Solids, liquids and gases are made of particles. They are so small we are unable to see them
distance	A measurement of length between two points
absorb sound	To take in sound energy. Absorbent materials have the effects of muffling sounds
ear drum	A part of the ear which is thin, tough layer of tissue which is stretched out like a drum skin. It separates the outer ear from the inner and middle ear. Sound waves make the ear drum vibrate.
data loggers	An electronic device that records data

Sound cannot travel through space because space is a vacuum.



Key Scientists:

Robert Boyle (1627-1691) was the first person to discover that sound needs a medium to travel through

Ernst Mach (1838-1916). Described how shock waves are formed.

Heinrich Hertz (1857-94). The unit of frequency used for all kinds of waves and vibrations is named after him. One Hertz is equal to one vibration per second.