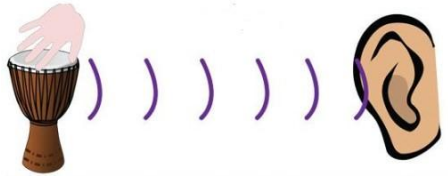
Year 4 Science
Autumn 2

Sound

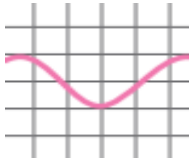
Sound waves

Sound travels in the form of vibrations through particles. A sound wave is a vibration travelling away from a sound source. Sound cannot travel through a vacuum.

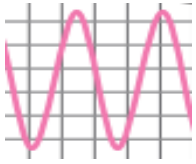


The size of the vibration is called the amplitude.

Louder and more higher pitched sounds have a larger amplitude.

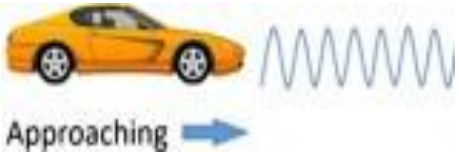


Quieter and lower pitched sounds have a smaller amplitude.





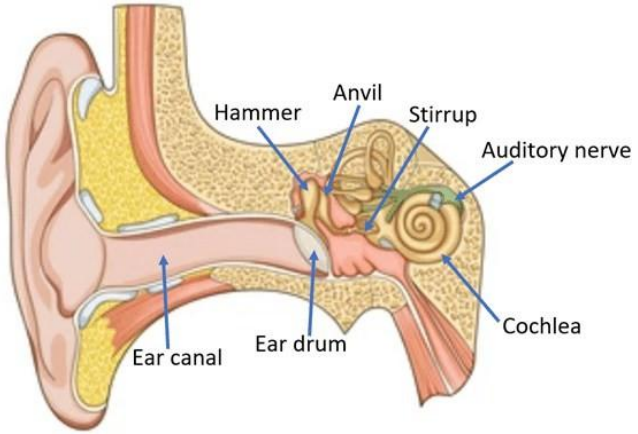
Sounds waves decrease in frequency and get fainter as you move away from the source



Sounds waves increase in frequency and get louder as you move towards the source

Parts of the human ear

Humans hear by catching sound waves with the outer ear, turning them into vibrations in the middle ear, and sending electrical signals from the inner ear to the brain.



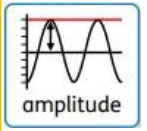
Key Vocabulary



sound wave: when an objects vibrates, it produces a wave that travels through the air to your ear



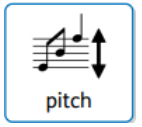
vibration: shaking movement of air particles



amplitude: distance from the centre line to he top part of the wave. Waves with a large amplitude have more energy



volume: how loud a sound is



pitch: highness or lowness of a tone. Fast vibrations = high pitch, and slow vibrations = low pitch

Part of the ear:



ear canal: passageway that leads from the outside of the head to the ear drum



eardrum: the membrane of the middle ear, which vibrates in response to sound waves



auditory nerve: the nerve that transfers auditory information from the cochlea to the brain