



Endpoints for Science

Year 4 – The Science of Sound



We will learn that sounds are vibrations travelling from sound sources, such as a person's vocal cords, musical instruments and machinery, through solids, liquids or gases to the ears. We explore how instruments make sounds, investigate pitch, volume, distance and direction, use a sound meter, change pitch in different ways and use enquiry to explain the fascinating science of sound.

What I know and can explain

Sound is energy that travels in waves from a sound source through a medium, such as a solid, a liquid or a gas, to our ears

Sound waves are created when a source, such as a person's vocal cords, a part of an instrument or a piece of machinery, vibrates

When energy is put into a sound source it starts to vibrate. These vibrations disturb tiny particles of air. They vibrate and collide with each other, creating sound waves

When the sound waves enter the ear, the eardrum vibrates. These vibrations pass through small bones, called ossicles, and are turned into electrical signals in the cochlea. They travel to the brain and are interpreted as sounds

Sounds are louder closer to the sound source and fainter as the distance from the sound source increases

Sounds are louder when more energy is put into a sound source, so the harder an instrument is hit, plucked or blown, the stronger the vibrations and the larger the sound waves

Useful Vocabulary

Decibel (dB) - A unit used to measure the volume of sound

Pitch - The highness or lowness of a sound

Sound wave - A pattern of vibrations created by a sound source that travels through a medium to the ears

Volume - The loudness of a sound