

Knowledge Organiser for Year 4 Science: Sound and hearing

Tier 3 Vocabulary

Sound wave	The movement of energy created by the vibration of a sound source.
Vibration	A very quick, continuous movement.
Amplitude	A measure of the height of a wave from its resting point to its peak.
Pitch	A measure of how high or low a sound is.
Volume	A measure of how loud a sound is.
Ear canal	A tube that connects the outer ear with the ear drum.
Eardrum	The piece of thin, stretched skin inside the ear that is moved by vibrations.
Cochlea	A spiral tube filled with fluid in the inner ear.

Key knowledge

All sounds are created by vibrations called sound waves. When an object vibrates, the air around the object also vibrates. The vibrations travel through the air particles into our ears. When they reach the eardrum and inner ear, sounds can be heard. These vibrations are called sound waves and can travel through any medium, including solids, liquids and gases.

Volume

Loud sounds are made by bigger vibrations and have a larger amplitude. Quiet sounds have smaller vibrations and a smaller amplitude.

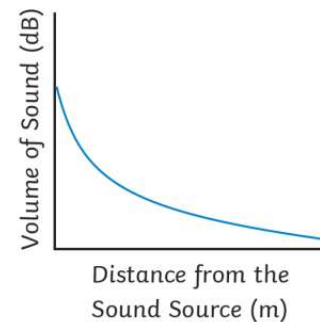
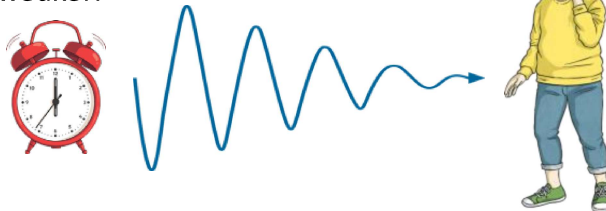


Pitch

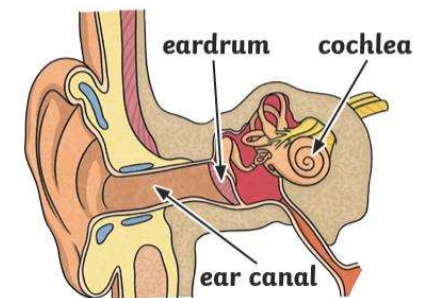
The vibrations of a high-pitched sound are fast; those of a low-pitched sound are slow.



The closer a sound source is, the louder the sound will be.
It is easier to hear a sound when it is near you than when it is at a distance.
This is because the sound loses energy over a distance.
The sound wave becomes weaker.



The ear



Related prior knowledge:

Y1/2 – the senses



Related future learning:

KS3 - sound waves