

How are sounds made?

Science

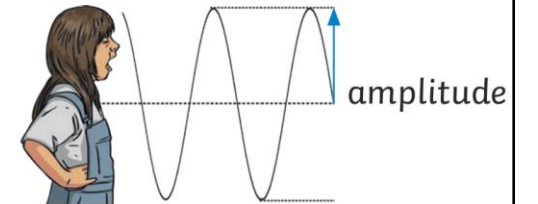
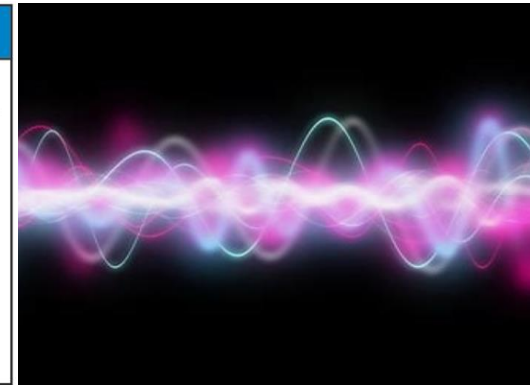
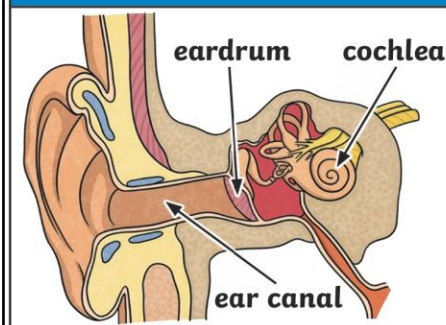
Year 4 Spring 2

ESSENTIAL VOCABULARY

Sound Wave	The movement of energy created by the vibration of a sound source.
Amplitude	A measure of the greatest distance that a vibration moves across and the height of the sound wave it produces.
Pitch	A measure of how high or low a sound is.
Vibration	A very quick continuous movement.
Absorb	To take in or keep inside.
Soundproof	Objects and materials that do not allow sound to pass through them.
Eardrum	The piece of thin, stretched skin inside the ear that is moved by vibrations.

Scientific Images

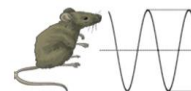
The Ear



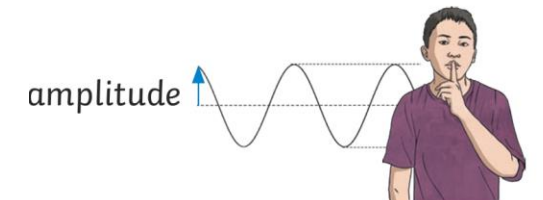
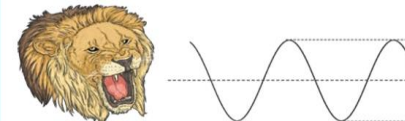
A louder sound has a larger **amplitude**.

Pitch is a measure of how high or low a sound is.

A squeak from a mouse is a high-**pitched** sound and this means it **vibrates** quickly.



The sound of a lion's roar has a lower **pitch** and **vibrates** slowly.



A quieter sound has a smaller **amplitude**.

Ernst Chladni

Ernst Florens Friedrich Chladni (born November 30, 1756 – died April 3, 1827) was a German scientist and musician. He is often called the "father of acoustics" because of his important work. Acoustics is the study of sound.



Chladni studied how things vibrate and how fast sound travels through different gases. He also did amazing work on meteorites. Many people see him as the "father of meteoritics", which is the study of meteorites.

What I will know at the end of the unit.

Identify how sounds are made

How sound travels through different mediums.

How the pitch of a sound is affected by the object that produced the sound.

How sounds travel to the ear.

How distance affects sound.