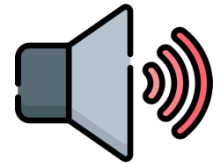


Sound



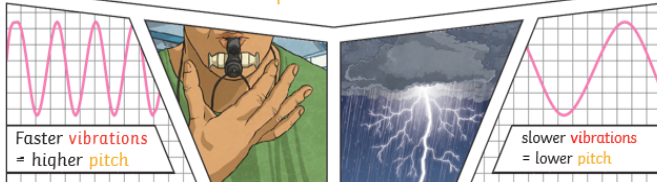
Year 4 Science: Sound

Scientific Concepts

Environment	The circumstances, objects, or conditions by which one is surrounded.
System	A group of related things that work together as a whole.
Core Vocabulary	
Vibration	quickly moving back and forth or up and down repeatedly.
Pitch	how high or low the sound is. A high sound has a high pitch and a low sound has a low pitch.
Volume	the degree of loudness or the intensity of a sound.
Amplitude	The amplitude of a sound wave is the measure of the height of the sound wave. Something that has a large amplitude creates a loud sound.

Images/diagrams

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.



Amplitude is the word we use to talk about the size of the vibrations.

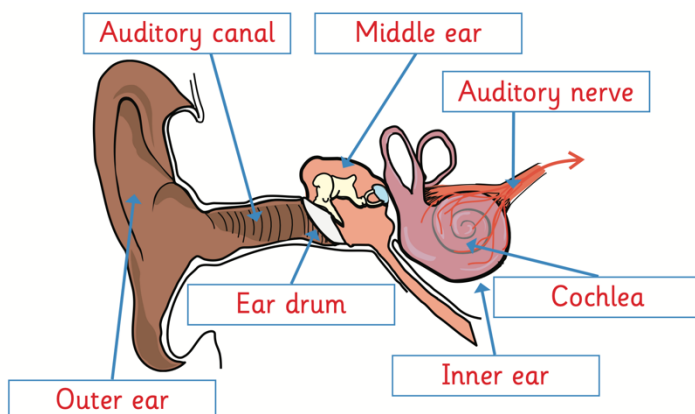
Small amplitude = quiet sound

Large amplitude = loud sound



Something which has smaller vibrations has a small amplitude.

Something which has large vibrations has a large amplitude.



When you hit the drum, the drum skin vibrates. This makes the air particles closest to the drum start to vibrate as well.



The vibrations then pass to the next air particle, then the next, then the next. This carries on until the air particles closest to your ear vibrate, passing the vibrations into your ear.



Key Knowledge

1	Every sound we hear is made by an object vibrating. Sounds are created by vibrations. The louder the sound, the bigger the vibration.
2	The sound is transmitted through the air to our ears in vibrations, which we hear as sound.
3	Sound energy can travel from particle to particle far easier and faster in a solid, because the vibrating particles are closer together than in other states of matter.
4	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.
5	The size of the vibration is called the amplitude. Louder sounds have a larger amplitude, and quieter sounds have a smaller amplitude.
6	Inside your ear, the vibrations hit the eardrum and are then passed to the middle and then the inner ear. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.