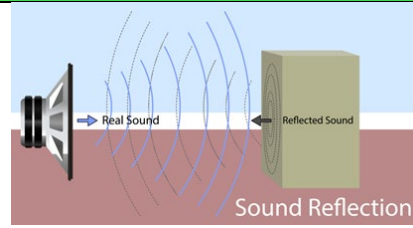




Knowledge Organiser		
Science	Year 4	Sound

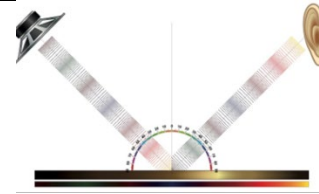
Key Vocabulary	
vibration	Particles moving very quickly
medium	A substance such as air, water or a solid
source	The start of something
energy	The power to make something work, move or grow
materials	Anything used in making something or building
reflect	Bounce back from a surface
volume	How loud or quiet a sound is
dB decibels	The unit to measure loudness
pitch	How high or low a sound is
instruments	Objects used to play music
particles	Tiny pieces that make up something larger
sound source	The object that started the sound

How sounds are made and travel



When objects vibrate, a sound is made. The vibration makes the air around the object vibrate and the air vibrations enter your ear. These are called sound waves. If an object is making a sound, a part of it is vibrating, even if you cannot see the vibrations. Sound waves travel through a medium (such as air, water, glass, stone, and brick).

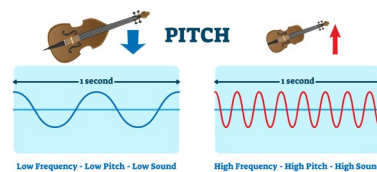
How do we hear?



The sound waves travel to the ear and make the eardrums vibrate. Messages are sent to the brain which recognises the vibrations as sounds.

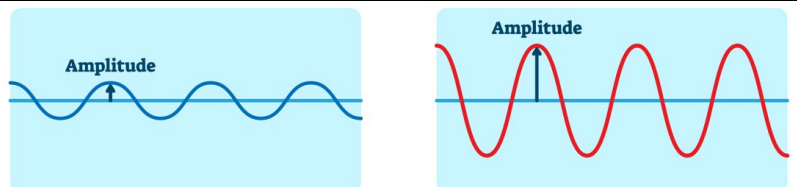
Pitch

The pitch of a sound is how high or low it is. A squeak of mouse has a high pitch A roar of a lion has a low pitch.



A high pitch sound is made because it has a high frequency. The sound source vibrates many times a second.

Volume



Low Amplitude - Quiet Sound

High Amplitude - Loud Sound

The volume of a sound is how loud or quiet it is. Quieter sounds have a smaller amplitude and less energy (smaller vibrations) and louder sounds have a bigger amplitude and more energy. The closer we are to a sound source the louder it will be. A train arriving at a station sounds loud. The further away from a sound the fainter it will be. A train in the distance sounds quieter.