

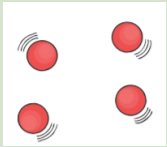


Somerset Bridge Primary School
Aspire - Brave - Care - Collaborate

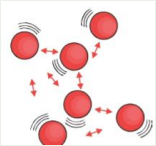
How We Hear



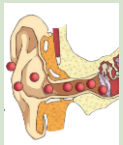
Sounds are caused by vibrating particles in a solid, liquid or gas.



The vibrations spread to the next particle, and the next, like ripples on water.



The vibrating particles hit your ear drum inside your ear.



They are passed onto the inner ear, where they are changed into an electrical signal to your brain.



In wind instruments, shorter instruments create a higher pitch:



Oboe



Clarinet



Recorder

In stringed instruments, shorter or tighter strings create a higher pitch:



Violin



Guitar

Some percussion instruments can produce many different pitches:



Xylophone



Piano

Science: Sound Autumn 2: Year 4

Pitch and Volume

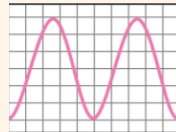


The vibrations that create sound travel in waves.

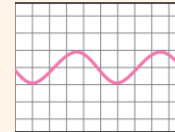
The shape of sound waves tell us about the sound.

The volume of a sound is called amplitude. Bigger vibrations have bigger amplitude.

Loud



Quiet



The pitch of a sound is the speed of the vibrations. Faster vibrations have higher pitch.

High Pitched



Low Pitched



Links to Real Life

If you lived near a noisy building site, you would need to find a way to absorb sounds so your house stayed quiet. This is called soundproofing.

If part of your ear is damaged, or does not work as well, hearing aids can amplify a sound to make it easier for you to hear.

Key Vocabulary



vibration



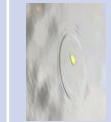
Quick movement back and forth

particles



Solids, liquids and gases are made of these. They are too small for us to see.

fainter



When a sound gets quieter. This happens when the source is further away, like ripples on water.

source



The thing creating the sound.

amplify



When we make a sound louder by increasing the amplitude of the sound waves.

