



Year Four: Sound Knowledge Organiser

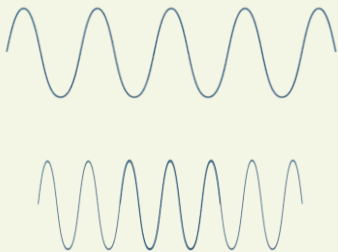


The Big Idea

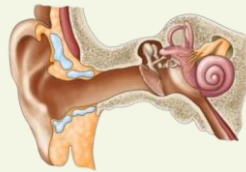
Sound is created from a source and travels outwards in the form of a sound wave in all directions. Sound waves are caused by vibrating molecules in either solids, liquids or gases. Bigger sound waves create louder sounds and longer wave lengths create lower frequencies (pitches).

How sounds are made

Sounds are made when something vibrates. The vibration travels through the air to our ear in a wave.



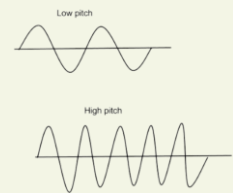
How sound waves travel through the ear



The eardrum is a thin piece of stretched skin which vibrates. These vibrations then travel through small bones to the cochlea. Small hairs in the cochlea convert the vibrations into impulses, sending information to the brain.

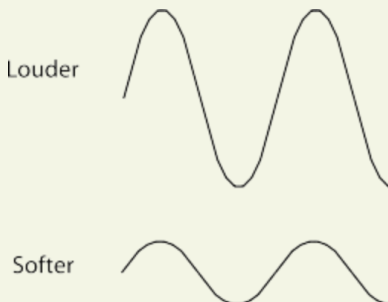
Pitch

Pitch is how high or low a sound is. A short string gives a higher-pitched sound than a long string when they are plucked. A tight drum skin gives a higher-pitched sound than a loose drum skin.



Volume

Volume is how faint or loud a sound is. The stronger the vibrations, the louder the sound.



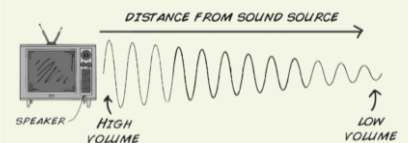
Instruments



Instruments produce a sound when a part of it vibrates, such as a string or a drum skin.

Distance and Volume

As sounds travel, the vibrations become weaker because they lose energy. This means that the volume of the sound will decrease the further away the ear is from the sound source.



Vocabulary

sound source vibrate pitch volume faint loud
 insulation ear sound wave frequency