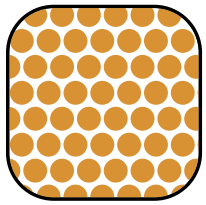
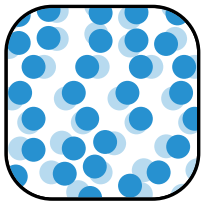
Sound Knowledge Organiser

Science

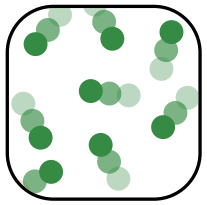
Sounds are made when objects vibrate. The vibration makes the air around vibrate, and the air vibrations enter your ear. You hear the vibrations as sounds. You cannot always see the vibrations, but if something is making a sound, a part of it is vibrating. The vibrations travel in all directions and they don't travel in straight lines.



Solid



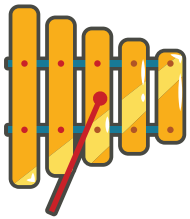
Liquid



Gas

The vibrations caused by the sound can travel through the air (gas) but can also travel through liquids and solids.

Sounds can be high or low. We call this the pitch. The pitch of a sound is how high or low the sound is. A high sound has a high pitch and a low sound has a low pitch. The pitch of a sound is due to how many times the object vibrates each second. The higher the number of vibrations the higher the pitch. We can change the pitch of the sound we make on different instruments.

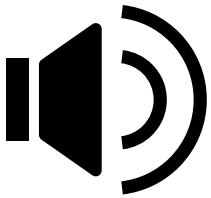


Sounds can also be loud or quiet.

We call this the **volume** or loudness of the sound.

Loudness is the amount of energy in the sound. The energy creates different sized vibrations. If you hit a drum hard, you give it lots of energy and the vibrations will be bigger than if it was hit gently. Bigger vibrations cause louder sounds.

Loudness is measured in **decibels** (dB).



Key Vocabulary

ear – the organ used to hear

noise – a sound – usually unwanted or unpleasant

pinnae – the outside flaps of the ear which help 'catch' the vibrations

pitch – how high or low a sound is

sound – vibrations that travel through the air and other mediums and can be heard

vibration – very quick movements

volume – how loud or quiet a sound is

Interesting Fact!

If you have bigger pinnae, you can hear sounds louder. Try it out! Cup your hands round your ears to make bigger pinnae! Do sounds sound louder?

Did you know?

The stirrup is the smallest bone in the entire human body.

The Ear