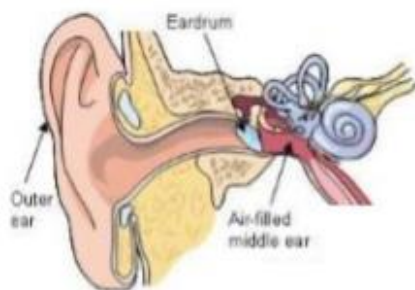


How sounds are made, travel and can be changed

Knowledge Organiser

How we hear

Sounds are made when objects vibrate. The vibration makes the air around vibrate, and the air vibrations enter your ear. Our brain hears the vibrations and turns this into a sound.



How sound is made

- 1) Sound travels through the air in waves.
- 2) When you clap your hands, the air around your hands shakes. This is the air molecules vibrating.
- 3) When air molecules inside the ear vibrate, they shake tiny hairs on the insides of the ears. The hairs are connected to nerves under the skin.
- 4) These nerves send messages to your brain to tell you that you heard a noise.



Key vocabulary	
amplitude	A measure of the strength of a sound wave.
decibel	A measure of how loud a sound is.
Frequency	A measure of how many times per second the sound wave cycles
Medium	Something that makes possible the transfer of energy from one location to another .
Pitch sound	How high or low a sound is. A thing that can be heard. The object that makes the sound is called the source.
Sound waves	Invisible waves that travel through air, water, and solid objects as vibrations.
source	Where the sound comes from .
vibration	Invisible waves that move quickly.
Volume	How loud or quiet a sound is

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.

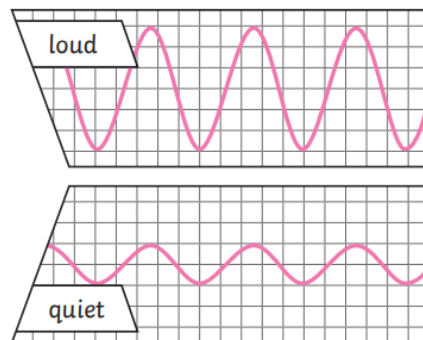


A high pitch sound is made because it has a high frequency. The sound source vibrates many times a second.

Volume

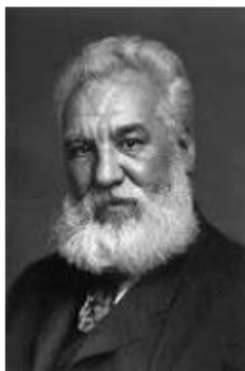
The louder the sound, the bigger the vibration.
The closer you are to the source of a sound, the louder the sound will be.

The further away you are from the source of a sound, the quieter the sound will be. The size of the vibration is called the amplitude. Quieter sounds have a smaller amplitude, and louder sounds have a bigger amplitude.



Alexander Graham Bell

Scottish born scientist (1847) who invented the telephone in 1876 at the age of 29. He formed the Bell Telephone Company in 1887



Absorbing Sounds

If you lived near a noisy building site, you would not want to hear the sounds of the machines! You would need to find a way to absorb the sounds so your house remained quiet and peaceful. This is called soundproofing, insulating the sound.

