

Sound

Year 4 Autumn 2

The Great Plague

Sticky Knowledge

● **high-pitched** – describes a high sound



● **low-pitched** – describes a low sound



What is pitch?

The pitch of a sound is how high or low the sound is. Sounds are affected by the size, length and thickness of the parts being played.

How do we hear sounds?

We hear sounds because an object vibrates. These vibrations then travel through the air (or another medium) to our ears.

What is the function of the eardrum? The eardrum is a thin flap of skin that stretches tight like a drum and vibrates when sound hits it.

How is sound measured?

Sound volume is measured in decibels (dB).

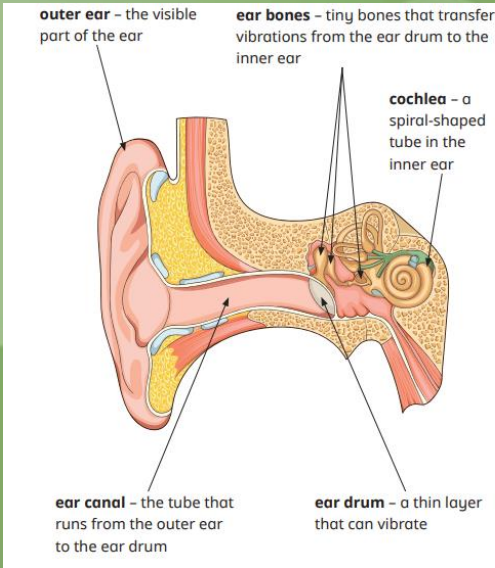
A decibel is a measure of the loudness of sounds.

A decibel meter can be used to measure the loudness of sounds.

What does the volume of sound tell us about the vibration? The louder the sound, the bigger the vibration. The quieter the sound, the smaller the vibration.

How do properties of materials affect sound?

Some materials absorb sound and make good insulators e.g. rubber or foam. Some sounds bounce off surfaces



Useful websites

How sounds are detected

<https://www.bbc.co.uk/bitesize/topics/zgffr82/articles/z3d4g7h>

- Sound vibrations travel through the air.
- The outer ear funnels the vibrations into the ear canal.
- The vibrations move down the ear canal.
- The vibrations are passed to the ear drum.
- The vibrations from the ear drum are passed along the ear bones and into the cochlea.
- Signals are then sent to the brain, where they are processed and interpreted as sounds we understand.

Vocabulary	Definition
vibration	Vibration means quickly moving back and forth (or up and down)
pitch	how high or low a sound is.
high pitched	describes a high sound
low pitched	describes a low sound
volume	The volume of a sound is how loud or quiet the sound is.
decibel (dB)	a measure of the loudness of a sound
insulate	to protect something from the transfer of heat, sound or electricity
dependent variable	What we will measure
independent variable	What we will change
controlled variable	What we will keep the same