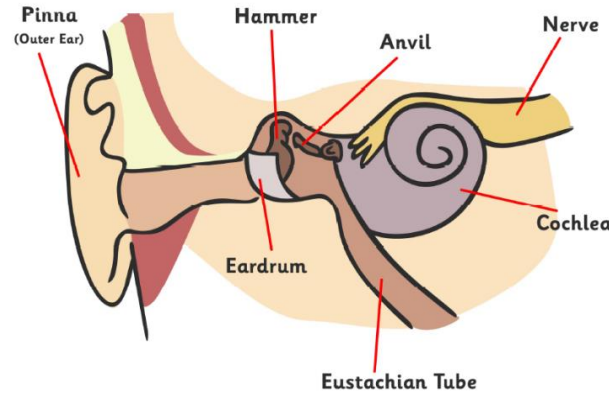


Year 4 Science: sound

Key Vocabulary:	
Vibrate	Move quickly and constantly, looks like it is shaking.
Volume	How loud or quiet a sound is.
Pitch	How high or low a sound is.
Soundwave	How sound travels.
Particles	Everything in the world is made up of tiny particles – These can appear in different forms.
Amplitude	Amplitude is the measurement of the strength of a soundwave.
Soundproof	When you use objects such as material to try and make sounds less noisy.
Decibel	The unit of measurement used to measure the power of a sound.



How does sound travel?

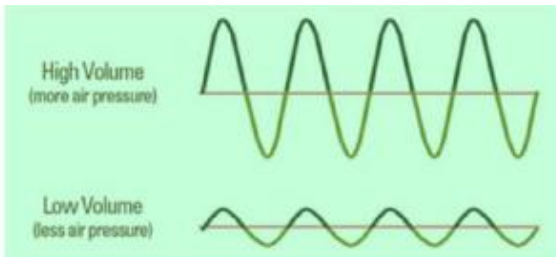
- If we hit a drum it starts to vibrate.
- The vibration hits air particles which then hit other air particles causing a wave.
- This makes the tiny bones in your ear vibrate.
- The wave travels to you and enters your ear.
- The particles make your ear drum vibrate.
- The nerve picks up the vibrations and carries them to the brain so that it can make sense of the sound that you're hearing.

Sounds are vibrations

Sounds are made when objects **vibrate**. The vibration makes the air around vibrate, and the air vibrations enter your ear. You hear them as sounds.

You cannot always see the vibrations, but if something is making a sound, some part of it is always vibrating.

Sounds can travel through different materials.



Generally, the shorter, tighter or thinner the object is, the higher the pitch of the sound will be. This is because the vibrations will be faster. The longer, looser or thicker the object is, the lower the pitch of the sound will be. This is because the vibrations will be slower.

How sound is made

Sound is caused by **vibration**. Vibration means **wobbling** very quickly back and forth. When you pluck a guitar string, or hit a drumskin, you can see the material vibrate. This causes the **air** touching the string to vibrate, which causes air further away to vibrate, which causes the air near your **ear** to vibrate, which your brain experiences as **sound**. The moving vibration is called a **sound wave**.

