

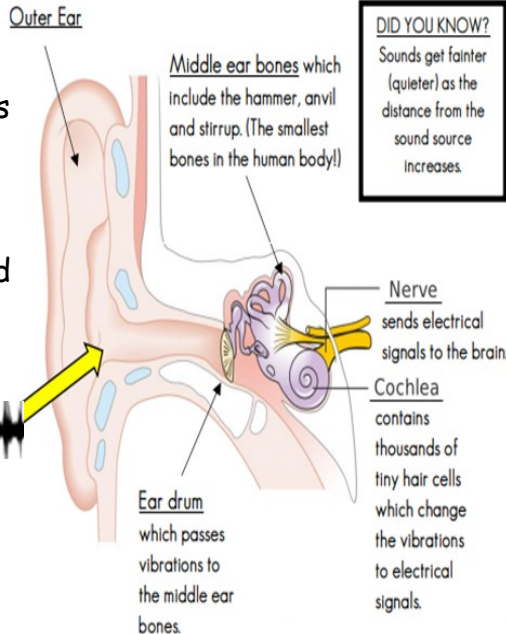
# Year 4:

# Sound

## Key Learning

Sound is a type of energy. Sounds are created by vibrations. The louder the sound, the bigger the vibration.

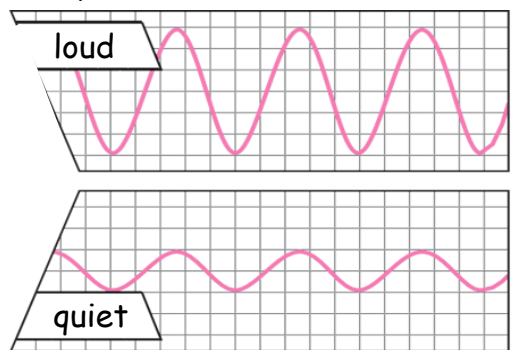
A sound source produces vibrations which travel through a medium. It can travel through solid, liquid or gas until it reaches our ears.



**DID YOU KNOW?**  
Sounds get fainter (quieter) as the distance from the sound source increases.

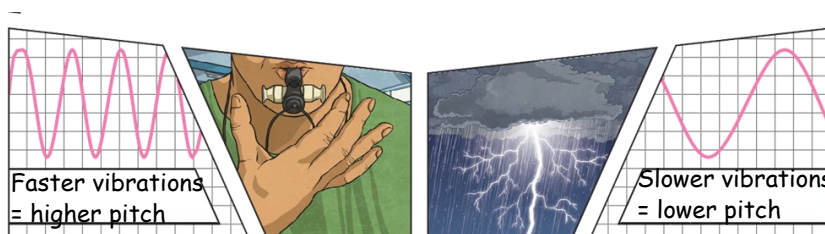
Sound travels in waves. The waves are caused by sound particles bumping into each other and transferring energy.

### Amplitude



Sound travels much slower than light, whether in air or in water. You often hear things before you see them. For example you see lightning before you hear thunder.

If you throw a stone in a pond it creates ripples. As the ripples spread out they become smaller. When sound vibrations spread out over a distance, the sound becomes quieter.



## Key Vocabulary

Vibration	A quick movement backwards and forwards.
Sound wave	Vibrations travelling from an object that made a sound.
Volume	How loud or quiet a sound is.
Pitch	How high or low a sound is.
Amplitude	The size of a vibration. A larger amplitude = a louder sound.
Frequency	The speed of vibrations, (measured in hertz-Hz).
Particles	Solids, liquids and gases are made of particles. They are so small we are unable to see them.
Vacuum	A space where there is nothing. There are no particles in a vacuum.
Soundproof	To prevent sound from passing through.