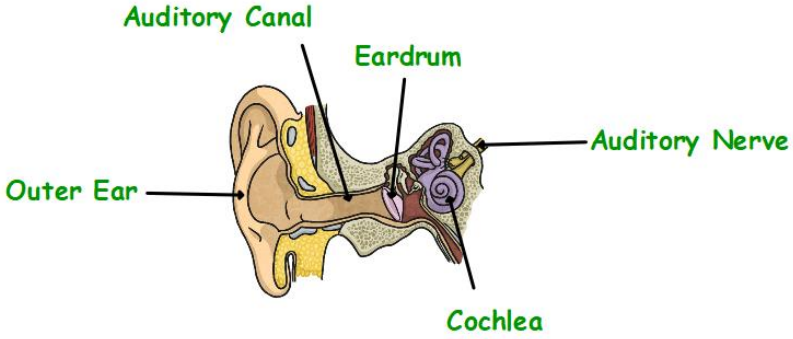
Science – Sound – Year 4

Vocabulary Top Ten:

amplitude	A measure of how loud or quiet a sound is.
auditory nerve	Sends sound messages from the ear to the brain.
cochlea	Part of the ear that changes sound into nerve messages and sends them to your brain.
deaf	Someone or something that cannot hear
eardrum	A thin flap of skin that is stretched tight like a drum and vibrates when sound hits it.
outer ear	Channels the sound waves into your ear.
pitch	A measure of how high or low a sound is.
sound waves	Invisible waves that travel through air, water and solid objects as vibrations.
soundproof	When a material is used to absorb loud sounds.
vibrations	Invisible waves that move quickly.

How do we hear?



1. A noise is made. Your **outer ear** channels the sound waves into your ear.



2. The **sound waves** travel along the **auditory canal**.
3. The **ear-drum** vibrates when a sound hits it.
4. The vibrating **ear-drum** makes the little bones in your ear vibrate.
5. The vibrations pass along the **auditory nerve** to your brain.
6. Your **brain** sorts the message and you hear the sound.



Key Facts:

- Sounds are made when objects **vibrate**.
- Sound travels in **waves** and can travel through solid, liquids and gases.
- The bigger the vibration, the louder the sound and the smaller the vibration, the quieter the sound.
- Sound spreads out as it travels.



Pitch

A squeak from a mouse is a **high-pitched** sound and this means it vibrates quickly.



The sound of a lion's roar has a **lower pitch** and vibrates slowly.



Evelyn Glennie is a deaf musician who often plays barefoot to allow her to feel the vibrations.



