



Key Vocabulary

sound source vibrate vibration travel
pitch (high/low) volume faint loud insulation

A sound produces **vibrations** which **travel** through a medium from the source to our ears.

Different mediums such as solids, liquids and gases can carry sound, but sound cannot **travel** through a vacuum (an area empty of matter).

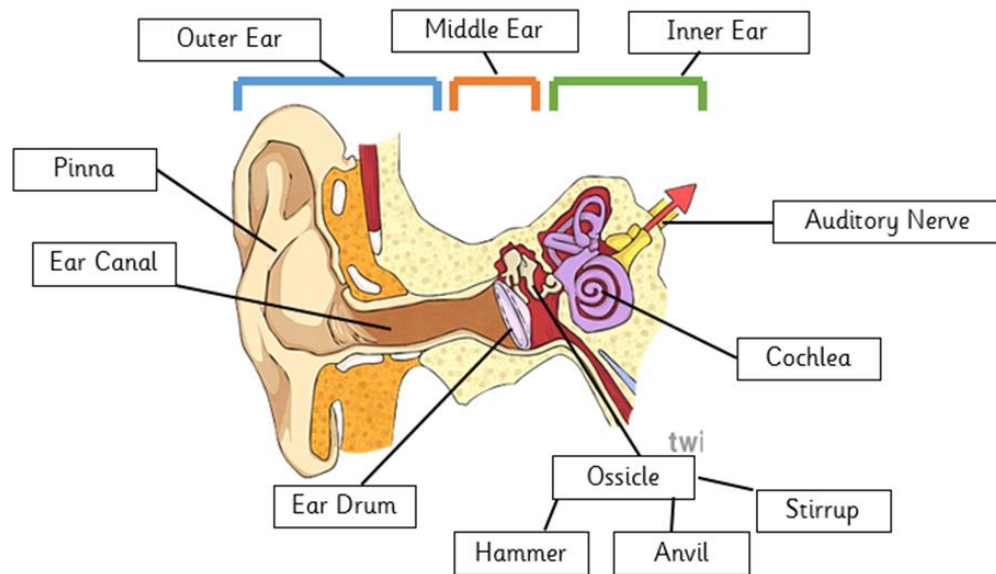
The **vibrations** cause parts of our body inside our ears to vibrate, allowing us to hear (sense) the sound.

The loudness (**volume**) of the sound depends on the strength (size) of **vibrations** which decreases as they travel through the medium.

Sounds decrease in **volume** as you move away from the **source**.

A sound **insulator** is a material which blocks sound effectively.

Pitch is the **highness** or **lowness** of a sound and is affected by features of objects producing the sounds. For example, smaller objects usually produce higher **pitched** sounds.



Robert Boyle 1627 – 1691

Sound must travel through matter because it needs the vibration of molecules to be heard.



Marin Mersenne 1588 – 1648

The first scientist to record the speed of sound – identifying that sound travels at different speeds through different matter.