Key Vocabulary Overview	
ear	an organ that animals use to detect vibrations, allowing them to hear
outer ear	the part of the ear that is on the outside of the body
ear bones	the three tiny bones inside of the ear that transfer vibrations from the eardrum to the inner ear
cochlea	a spiral-shaped tube filled with fluid found in the inner ear
ear canal	the tube that runs from the outer ear to the eardrum
eardrum	a thin layer that passes vibrations from the ear canal to the inner ear
medium (plural - **media**)	a substance that transfers or carries vibrations from one place to another
vibration	a fast, back-and-forth movement around a set point
sound	a vibration that has travelled through a medium, such as the air, which is heard when it reaches an ear

volume	how loud or quiet a sound is
decibel (dB)	the unit of measurement for the volume of a sound
decibel meter	equipment that measure the volume of a sound
pitch	how high or low a sound is
high-pitched	a sound that is high and shrill, such as a whistle or birdsong
low-pitched	a sound that is low and deep, such as a drum or a growl
background noise	sound that can be heard while listening to or measuring a main sound
insulate	to stop or slow the transfer of energy, such as sound
conclusion	a statement of what you have found out from your observations in an enquiry
evaluate	to judge how well an enquiry worked and think about how it can be improved

Vibrations

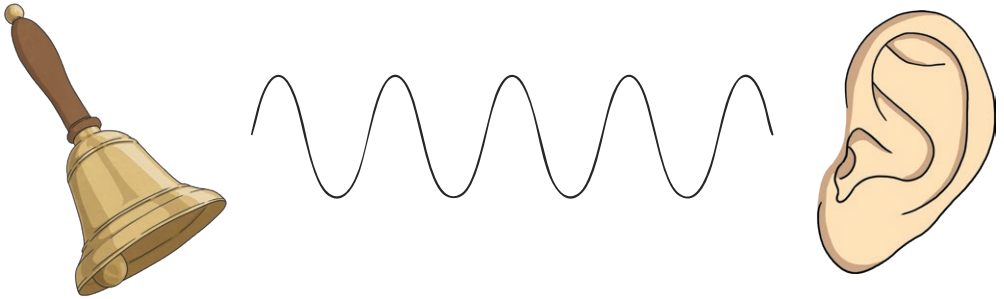
Sounds are caused by objects **vibrating**. For example:

When you bang on a drum, the drum skin **vibrates**.

When you pluck a guitar string, the string **vibrates**.

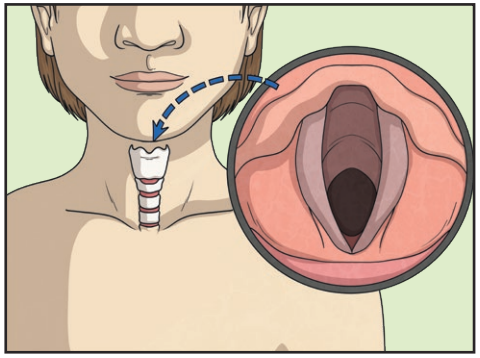
How Can Sounds Be Heard?

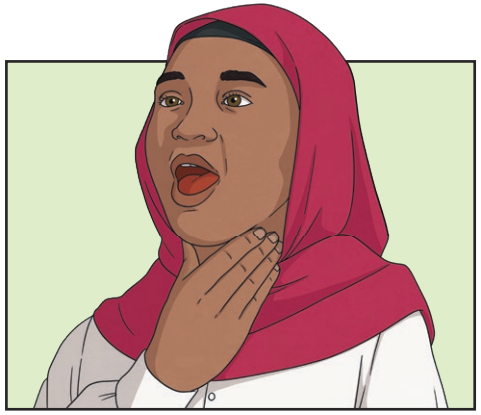
When an object **vibrates**, it makes the air around it **vibrate** as well. This **vibration** travels through the air, or another **medium**, to your **ear**. We call these **vibrations** travelling through a **medium** '**sound** waves'.



Voice

When a person speaks, the larynx (also known as the voice box) **vibrates** to make **sound**.





Changing Sounds

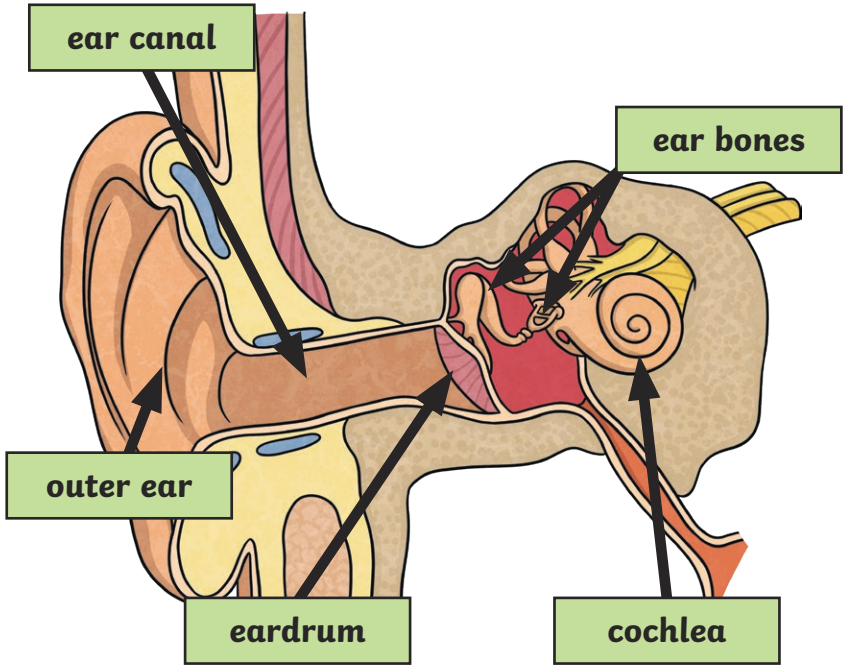
When we hit a drum harder, we make the **sound** waves larger. This makes them **sound** louder and travel farther.

Media

A **medium** is a substance that **sound** can travel through. **Sounds** can travel through air but they can also travel through liquids, such as water, and even solids. When **sounds** are heard through other **media**, they are distorted (meaning that they do not **sound** the same).

Ears

Ears are adapted to pick up, funnel and amplify **vibrations** in the air to help people to make sense of **sound**.



Volume and Pitch

The **volume** of a **sound** is how loud or quiet the **sound** is. The size and strength of the **vibration** influences how loud or quiet a **sound** is.

The **pitch** of a **sound** is how high or low the **sound** is.

- **High-pitched sounds** may sound squeaky or shrill.
- **Low-pitched sounds** may sound deep and rumbly.

Remember, **volume** is to do with how loud or quiet a **sound** is. **Pitch** is to do with how high or low a **sound** is. A **sound** can be loud and **high-pitched** or quiet and **high-pitched**.

Sound Waves

Generally, the larger or stronger a **vibration** is, the louder the **sound** is. We can see this in the taller height of the **sound** wave in the wave model.

High-pitched sounds have **sound** wave models with crests and troughs that are close together. **Low-pitched sounds** have **sound** wave models with crests and troughs that are far apart.