

## Key Vocabulary

**Vibrations** – moving (wobbling) very quickly back and forth.

**Pitch** – how high or low a sound is

**Volume** – how loud or quiet a sound is

**Faint** – barely hear something

**Insulation** - material that is used to stop heat, sound, or electricity from escaping or entering.

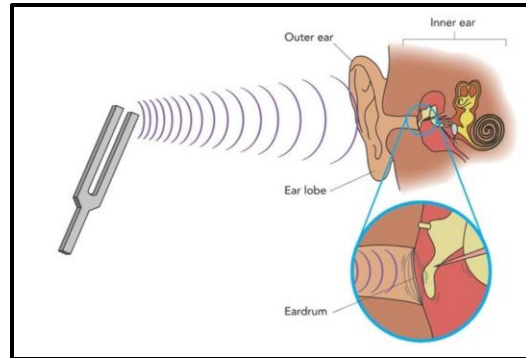
**Soundproofing** – a way to reduce the movement of sound.

**Sound wave** – how sound/vibrations travel through the air.

## Year 4 Sound

### Sound

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



### How do we hear sound?



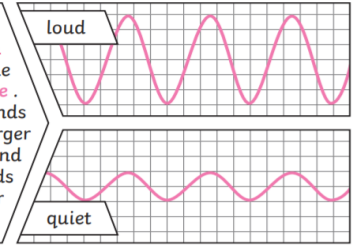
1. Banging the drum produces vibrations.

2. The sound travels through the air to our ears.

3. The vibrations cause parts of our body inside our ear to vibrate. This allows us to hear the sound.

## Volume

The size of the **vibration** is called the **amplitude**. Louder sounds have a larger **amplitude**, and quieter sounds have a smaller **amplitude**.



The closer we are to the sound source the louder it will be.



A train arriving at a station sounds loud.

The further away from a sound the fainter it will be.



A train in the distance sounds quieter.

As well as travelling through air (gas), sound can travel through solids and liquids:



## Insulating sound



We can wear ear defenders to protect our ears from very loud sounds.

## Pitch

**Pitch** is a measure of how high or low a sound is. A whistle being blown creates a high-pitched sound. A rumble of thunder is an example of a low-pitched sound.

