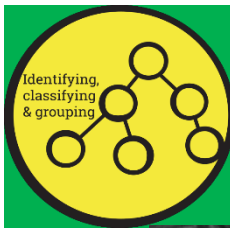


Sound

Scientific Enquiries



WHO?

Miller Reece Hutchinson



Year 3
forces

Physics



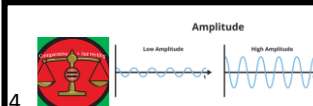
Vocabulary

vibration	An instance of vibrating.	decibels	The unit of measure for volume.
instrument	A tool used for particularly work.	pitch	How high or low a sound is.
energy	Power made from sources.	particles	A minute part of matter.
volume	How loud or quiet a sound is.	sound source	Something that produces sound.

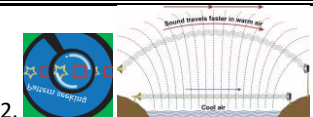
WHAT?



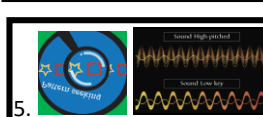
1. **Sound** is made from **vibrations**. The vibrations cause **particles** in the air to vibrate too. This produces a **sound wave** that travels through the air.
- Sound travels from an **object** to the **ear**.
- **Sound waves** travel through a **medium** e.g. air, water, solid objects.



4. **Volume** of a sound is dependent on how much **energy** or **power** a **sound source** is given.
- As volume **increases**, so does **amplitude** (height of sound waves).
- A **decibel meter** records the amplitude of a sound.
- Amplitude tells us how much **energy** a sound has.



2. **Sound** can travel through **solids**, **liquids** and **gases**.
- Sound travels **quickest** through **solids** and **slowest** through the **air**.
- **Air particles** are **further apart** than liquids of solids, so the sound waves take longer to travel through it.
- **Particles** in a **solid** are **closer together**, so the sound waves travel quicker.



5. The **pitch** of a sound is how **high** or **low** the sound **frequency** is.
- **High pitch** is caused by **fast vibrations** made by the sound source. Objects that are **smaller** and **thinner** tend to make **high-pitched** sounds.
- **Low pitch** is caused by **slow vibrations** made by the sound source. Objects that are **larger** and **thicker** tend to make **low-pitched** sounds.

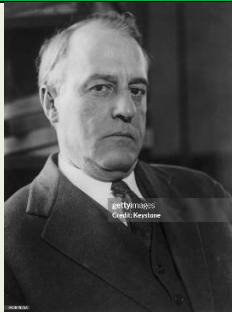


3. **Large**, **rigid materials** allow **sound** to travel more **easily** e.g. metal and plastic.
- **Soft materials** absorb sound e.g. cotton wool.
- **Volume** of sound is measured in **decibels**.



6. As a **sound wave** travels **away** from a **sound source**, it carries less and less energy because the sound waves travel in all directions.
- The **further away** a sound travels from a sound source, the **quieter** the sound gets.

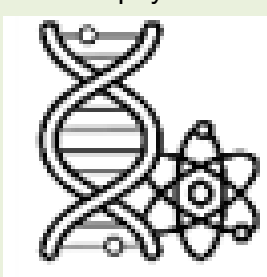
Helpful links



Learn more about hearing aids



What is physics?



What is sound?



Glass bottle xylophone

