

Working Scientifically Skills



WHO?

Hertha Ayrton



Year 1 and 2 Materials



Physics

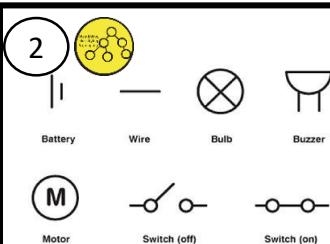


Vocabulary

| | | | |
|--------------------|--|-----------------------------|--|
| electricity | The flow of an electric current through a material, e.g. from a power source through wires to an appliance. | mains electricity | Electricity supplied through wires to a building. |
| appliances | A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone. | electrical conductor | A conductor of electricity is a material that will allow electricity to flow through it. |
| battery | A device that stores electrical energy as a chemical. Two or more cells joined together form a battery. | electrical insulator | Materials that are electrical insulators do not allow electricity to flow through them. |
| circuit | A pathway that electricity can flow around. It is based around wires and a power supply. Examples of components (parts) you can add in to a circuit are bulbs, switches, buzzers and motors. | | |

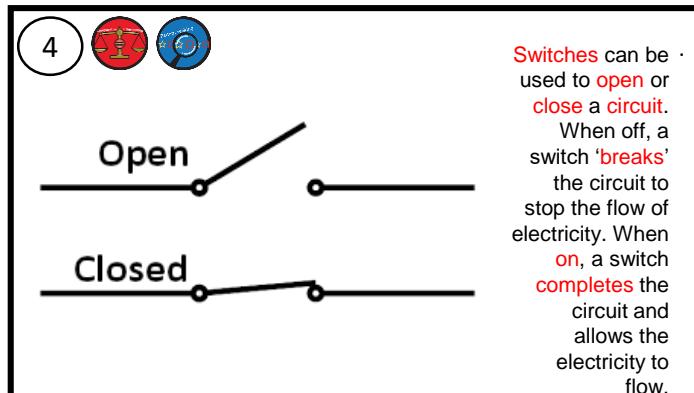
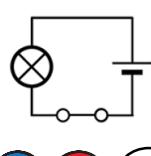
WHAT?

An **appliance** is a **device**, piece of **equipment** or an **instrument** designed to **perform** a task.
To use the **mains electricity**, you need to **plug** the appliance into a **socket**.
To use **battery electricity**, you need to insert a **battery** into the **appliance**.
In the **UK**, mains electricity is produced by **gas**, **coal** or **nuclear** power stations.
Wind turbines, hydroelectric and solar panel power stations are also used to generate **electricity**.
Batteries store chemicals which produce an **electric current**.



A **circuit** is a **complete** path around which **electricity** can **flow**.
A **complete circuit** requires **wires**, **battery** and a **bulb**. If there is a **break** in the **circuit** that prevents the **electricity** from **flowing**, the components will not work.

A **bulb** will only **light up** when a **circuit** is **complete**. This must include **two wires** (connected to each end of the battery) and a **bulb**.
A bulb can be made **brighter** by adding **more batteries**.



An **electrical conductor** is a material that **allows** **electricity** to pass **through**. A material that **does not** **allow** **electricity** to pass through is called an **insulator**.

5

