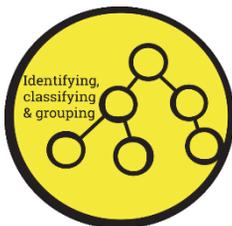


Working Scientifically Skills



WHO?

Michael Faraday



Year 4
Electricity

Physics



Vocabulary

circuit	A path that an electrical current can flow around.	symbol	A visual picture that stands for something else.
current	The flow of electrons, measured in amps.	cell/battery	A device that stores chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells.
voltage	The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.	resistance	The difficulty that the electric current has when flowing around a circuit.

WHAT?

A **circuit** is the **path** that an **electrical current** can **flow** around

Battery: **stores** chemical **energy** until it is needed

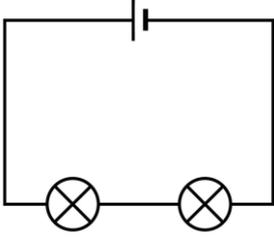
Current: **flow** of **electrons** measured in **amps**

Amps: how **electric current** is measured

Voltage: **force** that makes the **electric current** move **through** the wires. The **greater** the **voltage**, the **more current** will flow

Resistance: The **difficulty** that the **electric current** has when **flowing** around a circuit

A **simple circuit** can be made from a **battery**, a **bulb** and **wires**.

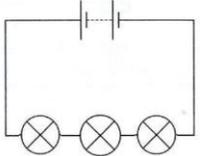



The **brightness** of a **bulb** or **volume** of a **buzzer** depends on the **voltage** of cells in the circuit

The **more batteries** there are in a circuit, the **brighter** the **bulb**.

The **more bulbs** there are in a circuit, the **dimmer** the **light bulbs**.

The **longer** the **wire** in a circuit, the **weaker** the **electrical current**.




For a **circuit** to be **complete**, there must be **wires connected** to both the **positive** and **negative** ends of the **power supply**.

Working electrical circuits require **no breaks** so the **electrical current** can flow **all** the way around

If there is **no wire** connecting the bulb to the battery, the bulb will **not light**.

A **pencil** is **not** a **conductor** of **electricity**, so the circuit becomes **incomplete**.





When a **switch** is **open** (off), there is a **gap** in the circuit. **Electricity cannot travel** around the circuit.

When a **switch** is **closed** (on), it makes the **circuit complete**. **Electricity can travel** around the circuit.



