









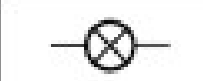
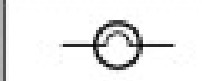
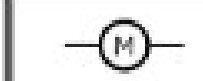

Year 6

Knowledge organiser


Electricity

Electricity flows in a circuit from the negative pole of a battery to its positive pole. The flow of electricity creates an electric current. There is a symbol to represent each component in an electrical circuit. Sometimes a lamp is called a bulb.


Key Vocabulary	
circuit	A path that an electrical current can flow around.
symbol	A visual picture that stands for something else.
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 .
current	The flow of electrons , measured in amps .
amps	How electric current is measured.
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 .
electrons	Very small particles that travel around an electrical circuit .

 battery	 closed switch	 open switch	 cell	 voltmeter
 buzzer	 lamp	 lamp	 motor	 wire

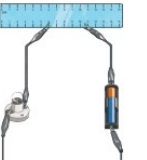
Materials can be tested in a **circuit** to see if they are **electrical conductors** or **electrical insulators**.



10p = metal =
electrical conductors



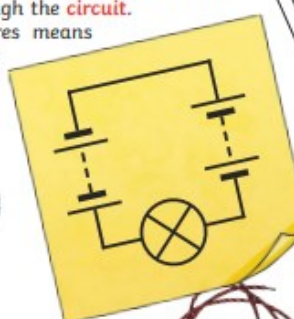
test **circuit**



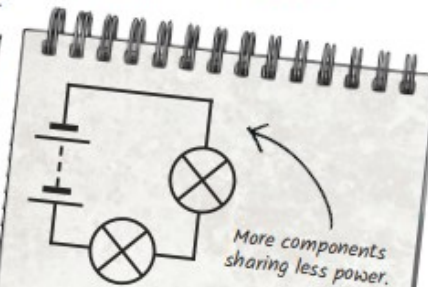
ruler = plastic =
electrical insulators

What will make a bulb brighter or a buzzer louder?

- More **batteries** or a higher **voltage** create more power to flow through the **circuit**.
- Shortening the wires means the **electrons** have less **resistance** to flow through.



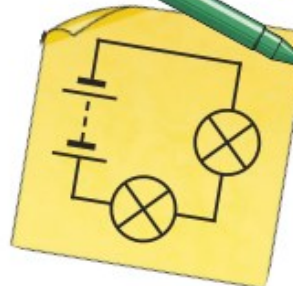
Series Circuit
A **circuit** that has only one route for the **current** to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series **circuit** breaks, the **circuit** is broken and the flow of **current** stops.



More components sharing less power.

What will make a bulb dimmer or a buzzer quieter?

- Fewer **batteries** or a lower **voltage** give less power to the **circuit**.
- More buzzers or bulbs mean the power is shared by more components.
- Lengthening the wires means the **electrons** have to travel through more **resistance**.



A broken circuit with no electrical current.

