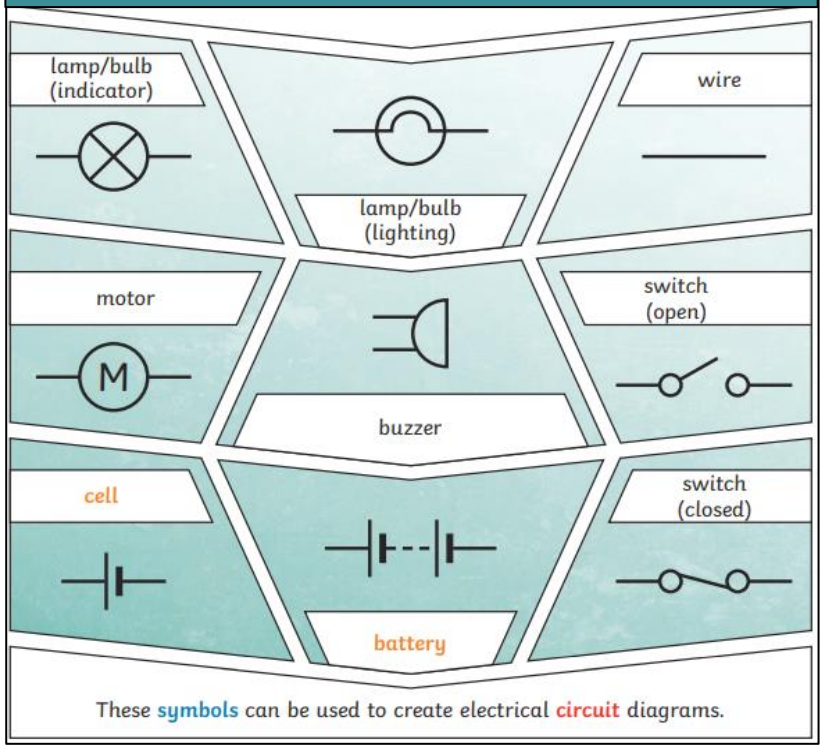
Year 6 Science Electricity

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.

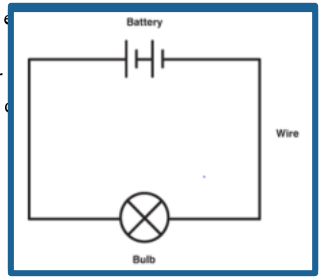
Key Knowledge



These symbols can be used to create electrical circuit diagrams.

Series Circuit

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



Inspirational Scientists

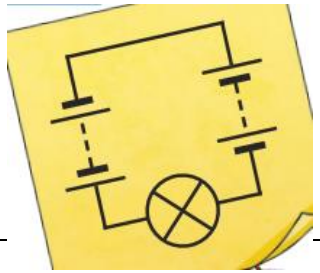
Dame Caroline Harriet Haslett BE JP was an English electrical engineer, electricity industry administrator and champion of women's rights. She was born in Worth – 17 miles away.

Peter Rawlinson is a British engineer based in California. He is the chief executive officer and chief technology officer of ucid Motors and is known for his work as Chief Engineer on the Tesla Model S and the Lucid Air.

Key Knowledge

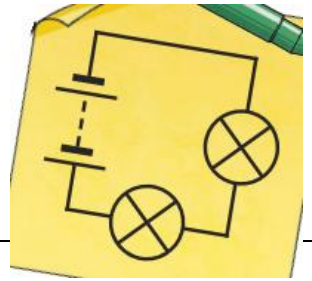
What will make a bulb brighter or a buzzer louder?

- 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.

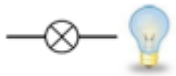
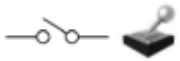
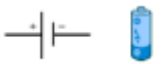
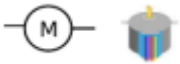


What will make a bulb dimmer or a buzzer quieter?

- 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.

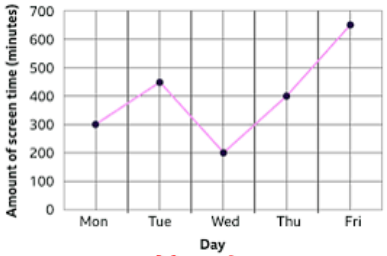


Scientific Equipment

Electrical wires	
Bulbs	
Switch	
Batteries	
Buzzers	
Motors	

Recording Results

Line Graph



X axis

Results Table

Type of material	Permeable	Magnetic
Sponge	✓	x
Tinfoil	x	x
Paper clip	x	✓
Filter paper	✓	x

Key Vocabulary

axis	Line graphs consist of two axes: x-axis (horizontal) and y-axis (vertical)
compare	Note similarities and differences between different things e.g. compare different types of materials
control variable	A control variable are variables in an experiment that you keep the same. They remain constant and unchanged throughout the investigation.
dependent variable	A variable whose value depends on that of another. In an experiment – what you measure or observe.
fair test	A fair test is a controlled investigation carried out to answer a scientific question. In a fair test, we only change **one** variable.
independent variable	A variable whose variation does not depend on that of another. In an experiment – the one thing that you change (vary).
line graph	Line graphs are used to track changes over short or long periods of time.
litre/millilitre	Litres are a type of metric unit – mainly used to measure the volume of liquids. 1000 millilitres (ml) = 1l (litre)
repeat readings	We repeat our experiments to check that our results are accurate.