



Science – Year 6

Electricity

(Previous knowledge – refer to Knowledge Organiser Year 4 – Electricity)

Vocabulary

Tier 1	Tier 2	Tier 3
Electricity	Cell	Voltage
Battery	Circuit	Electrolyte
Switch	Current	Electrode
Bulb	Conductor	Electrons
Complete	Insulator	Circuit symbol
Incomplete	Buzzer	Circuit diagram

Useful Resources

- Wires, bulbs, batteries, switches and buzzers to create different types of circuit.
- Range of different materials to investigate conductors and insulators.
- Ammeters.

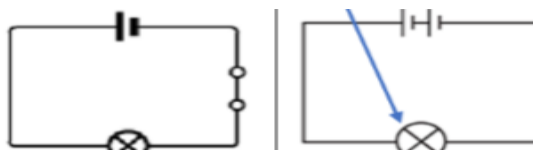
Key Scientists:

Peter Rawlinson – A modern British engineer working on the development of electric vehicles. He is known for his work as a vehicle engineer at Tesla.



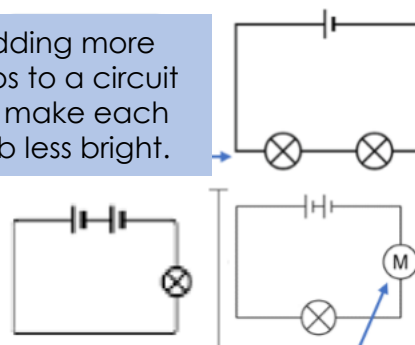
Adding more cells to a circuit makes a bulb brighter.

The bulb in this circuit will be brighter



A battery with a higher voltage will also make the bulb brighter.

Adding more bulbs to a circuit will make each bulb less bright.



If we add a motor into a circuit with a single bulb, the bulb will be less bright.

If we add more motors to a circuit, each motor will spin more slowly.

Key Questions/Facts

What is a cell?

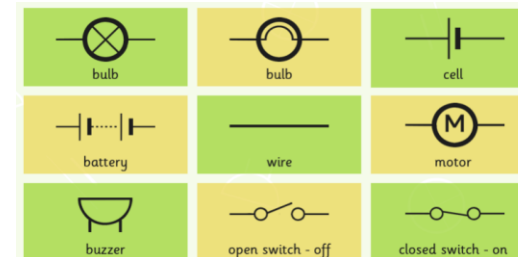
- A single cell is the scientific name for a battery.
- It contains two electrodes and an electrolyte.
- Electrodes are charged electrical conductors inside a cell.
- Each cell has one positive and one negative electrode.
- An electrolyte is a chemical that reacts with the electrodes to produce an electrical current.

How is electrical current measured?

- Current is the steady flow of electrons. This is measured in amperes (amps).
- Voltage is the force that makes the electric current flow. This is measured in volts (V).
- The greater the voltage, the more the current will flow.

What are the components of an electrical circuit?

- An electrical circuit is a pathway that electricity can flow around. It is based around wires and a power supply. Examples of components you can add to a circuit are bulbs, switches, buzzers and motors.



Circuit Symbols