

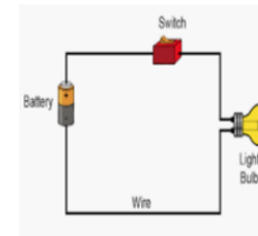
- Electricity is a type of **energy**. It is used to **power** lots of things!
- Electricity can **flow** through wires and cables. It can also be **stored** in **batteries or cells**.
- Electricity can flow through **circuits**. A circuit is the **path** the electric current follows. It must be a **closed** circuit for electricity to flow.
- The electricity flowing through a circuit is known as the **current**.
- Some materials are **conductors** and others are **insulators**.



Key vocabulary

Battery/cell	Used as a source of power in a circuit
Conductor	A material which allows electricity to flow through
Closed circuit	A circuit with a continuous path through which a current can flow
Current	The electricity flowing through a circuit
Electricity	A type of energy which can be used to power a range of items
Energy	The ability to do work or cause a change
Input device	A power source e.g a cell/battery
Insulator	A material which does not allow electricity to flow through easily
Output device	Something that is powered by electricity e.g a bulb or propellor
Switch	A device which allows a circuit to be deliberately broken

Examples of battery-powered circuits



Simple circuit

- A simple circuit is a closed loop of a conductor material, e.g. a wire, in which electricity can travel in a current
- In order for it to be a closed circuit, an input device and an output device are needed
- A switch can be used to break the circuit



Torch

- A torch is one of the simplest forms of a battery-powered product
- Torches are useful when the source of light needs to be portable or operated by children
- When the switch is pressed, a conductor material is positioned into a circuit
- This closes the circuit and powers the lightbulb



Handheld fan

- A handheld fan is another example of a simple battery-powered electrical system
- Rather than powering a bulb, the closed circuit powers the propellor, which blows air

Health and safety

- Remove any jewellery and tie hair back
- Do not put fingers or objects in outlets
- Never use anything with a plug, wire or cord around water
- Keep metal objects away from electrical heat sources
- Never pull a plug out by its cord
- Follow electrical signs and guidance carefully
- Remember that electricity can cause burns, shocks and serious injury

