



Key Vocabulary

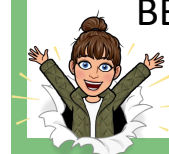
electricity	The flow of an electrical current through a material, e.g. from a power source through wires to an appliance.
appliances	A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
battery	A device that stores electrical energy as a chemical.
circuit	A pathway that electricity can flow around.
mains electricity	Electricity supplied through wires to a building.
electrical conductor	A conductor of electricity is a material that will allow electricity to flow through it.
electrical insulator	Materials that are not electrical insulators do not allow electricity to flow through them.

What do we use electricity for?

Use the QR code to watch a short video on BBC Bitesize.



SCAN ME



mains-powered



battery-powered

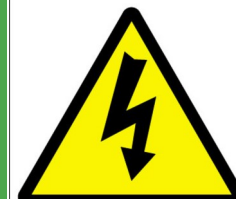


Where does electricity come from?

SCAN ME

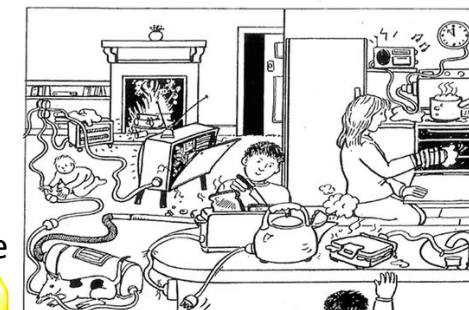


Electrical Safety



Danger Electricity

Electricity can be dangerous if it is not used properly. It can cause shocks, burns and even death. There are electrical dangers both in the home and outdoors.



How many light bulbs can you find?

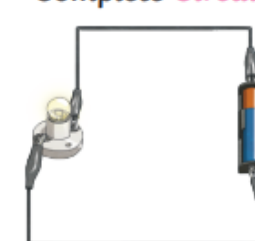


How does a bulb light up?

A complete circuit is needed to light up a bulb. This can be done with; a cell or a battery, a light bulb and wires.



Complete Circuit



Electricity can flow. Components will work.

Incomplete Circuit



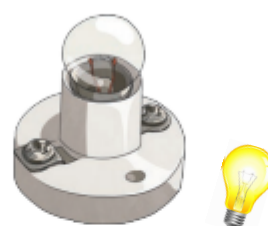
There is a break in the circuit that prevents the electricity from flowing. The components will not work.

Components (Parts) Vocabulary

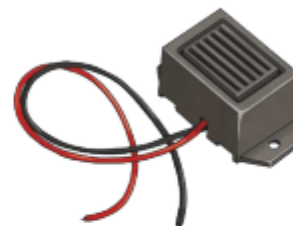
cell: Normally we would call this a battery but scientifically this is a cell. Two or more cells joined together form a battery.



bulb: Lights up in a complete circuit.



buzzer: Makes a noise in a complete circuit.



wires: Used to connect the different component in the circuit together.



motor: Produces movement in a complete circuit.



switch: Used to turn other components in the circuit on or off.



Is it an insulator or a conductor?

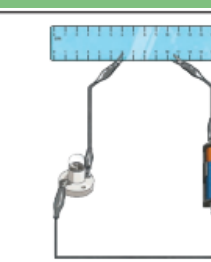
Materials can be tested in a circuit to see if they are electrical conductors or electrical insulators.



10p = metal = electrical conductors



test circuit

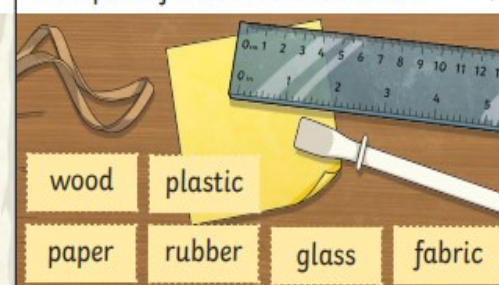


ruler = plastic = electrical insulators

Examples of Electrical Conductors



Examples of Electrical Insulators



What is a switch and how does it affect a circuit?

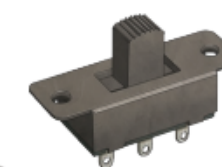
Switches can be used to open or close a circuit. When a switch is off it 'breaks' the circuit to stop the flow of electricity. When a switch is on it 'completes' the circuit and allows electricity to flow.



toggle switch



push button switch



slide switch

