

What should I already know?

- Some appliances that run on electricity.
- That a circuit is a complete loop containing a battery, wires and an appliance.
- Materials that allow electricity to pass through them are called conductors.
- Materials that will not allow electricity to pass through them are called insulators.

What will I know by the end of the unit?

symbol	component
	bulb
	buzzer
	battery
	motor
	switch (open)
	switch (closed)
	wire

Vocabulary

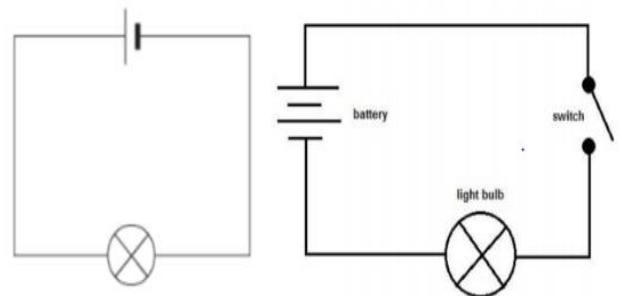
appliances	something in your home that does a job, such as cleaning or cooking
battery	two or more connected cells
bulb	gives out light when electricity passes through it
buzzer	makes a buzzing sound
cell	synonym for battery
circuit	when complete, electricity can flow around it
component	the parts involved in a circuit
conductor	something electricity can travel through
electricity	energy that can be carried through wires
energy	power that makes machines work
insulator	a non-conductor of electricity
motor	something that moves when electricity passes through it
output	the amount of something produced
switch	used to turn a device on or off
voltage	the force of an electric current
wires	a long, thin piece of metal used to carry electricity

Why might some circuits work better than others?

- The higher the voltage of the cells, the greater the output of the device. E.g. the brighter the bulb or the higher the volume of the buzzer.
- Adding more batteries (cells) to a circuit will increase the voltage and make a bulb brighter.
- When a switch is 'open' (off), the circuit is broken and electricity cannot flow.

Diagrams

- Examples of simple circuits using symbols for a battery, bulb and an open switch.



Data Handling

- Record and display results using an appropriate graph after conducting an experiment correlating the voltage of cells with the output of a device.