

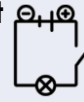


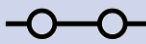
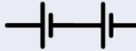





Vocabulary

1 components 	the parts of a circuit e.g. bulb, cell, buzzer	6 buzzer 	produces sound when electricity flows through it, useful for: alarms, doorbells, shop door sensors
2 circuit 	the circular path around which electricity flows a circuit diagram is the main features of a circuit in a simplified form	7 switch (open) 	creates a gap in the circuit to stop the flow of electricity
3 cell 	Commonly known as a "battery", it provides the power to make electricity flow. If you add more cells to a circuit: bulbs are brighter, current is higher, voltage for each bulb is more.	8 switch (closed) 	closes the gap in the circuit to allow electricity to flow
4 battery 	when two or more cells are used together	9 electrical insulator 	an object or material which will not allow electricity to flow through itself easily e.g. plastic, wood, rubber, glass, oil
5 bulb 	Provides light when electricity flows through it. If you add more bulbs to a circuit: bulbs are less bright, current is lower, voltage for each bulb is less.	10 electrical conductor 	an object or material which will allow electricity to flow through itself easily e.g. silver, gold, graphite, copper, sea water

Key knowledge

Electricity comes in two forms: static electricity and electricity in circuits

Static electricity

Happens when: two objects rub against each other

Because: the negative and positive charges in a material become unbalanced

Discharge: is when the charge jumps from one object to another to balance the charge out again

Examples: rubbing a balloon on hair, socks rubbing on a trampoline, clothes spinning in a dryer, storm clouds leading to lightning

Rules for building a circuit

1. There must be at least one cell
2. There must be a complete circuit for electricity to flow
3. The wires must be plugged in to each component on one side and come out of the component on the other side.
4. The switch must be closed to allow the electricity to flow

Taking measurements in a circuit

Current tells us how quickly electricity is flowing and is measured using an ammeter.

Voltage tells us the amount of energy each component uses and is measured using a voltmeter.

ammeter

