

Electricity Knowledge Organiser

electricity	The flow of electrons through a material from a power source to an appliance.
circuit	A pathway that electricity can flow around which includes wires, a power supply and sometimes bulbs, switches, buzzers and motors.
electrons	A tiny particle, smaller than an atom that has a negative charge.
cell	A cell holds an electrical charge. It has a positive end and a negative end and it pushes the electrical current around the circuit.
battery	Two or more cells together make a battery.
lamp	A component that gives out light when electricity passes through it.
wire	A long thin piece of metal that is used to carry electric current.
crocodile clip	A metal clip attached to each end of a wire to secure it to the components or another length of wire.
symbols	Simple drawings that represent components in a circuit.
switch	A simple switch is made of a metal lever that can join up with a metal contact to complete a circuit.
series circuit	The components are connected end-to-end, one after the other. They make a simple loop for the current to flow round.
conductor	A material or substance that heat or electricity can pass through or along
insulator	A material or substance that does not allow heat or electricity to pass through it.
component	Any device in an electric circuit that transfers electrical energy into another form e.g. lamp, motor, buzzer.

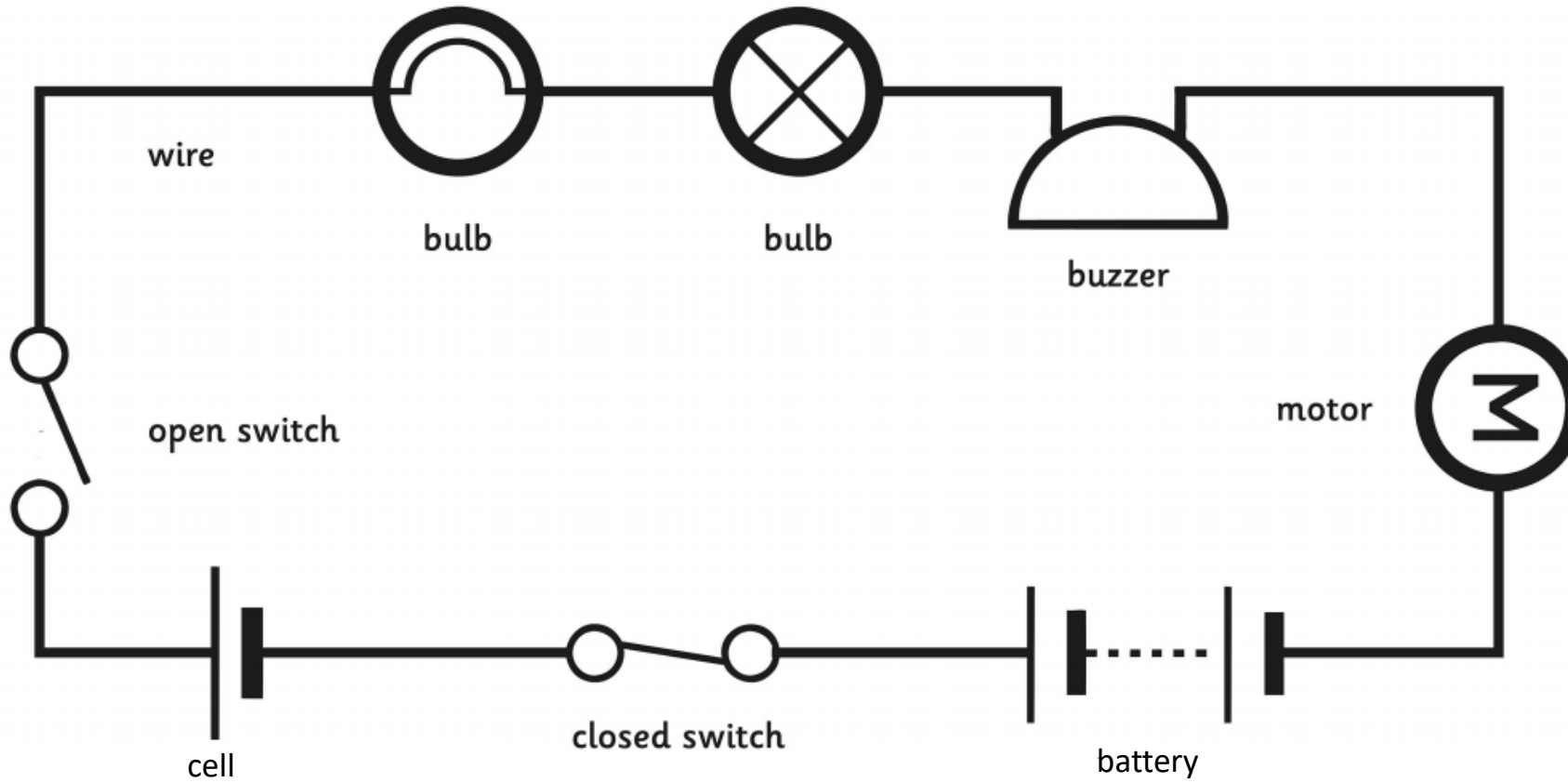
Key Facts

All of these things make a bulb glow dimmer or a buzzer quieter: fewer batteries or a lower voltage give less power to the circuit; more buzzers or bulbs mean the power is shared by more components; lengthening the wires means the electrons must travel through more resistance. .

Electricity can only flow around a complete circuit that has no gaps. There must be wires connected to both the positive and the negative end of the battery.

A series circuit only has one route for the current to take. If more bulbs or buzzers are added, the power must be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of current stops

More batteries or a higher voltage create more power to flow through the circuit and make a bulb glow brighter or a buzzer louder. Shortening the wires means the electrons have less resistance to flow through which can also make the bulb glow brighter or a buzzer louder.



Tier 2 Vocabulary

process The steps you have to do to complete a job.

sequence To put something in the correct order

vary Changing things.