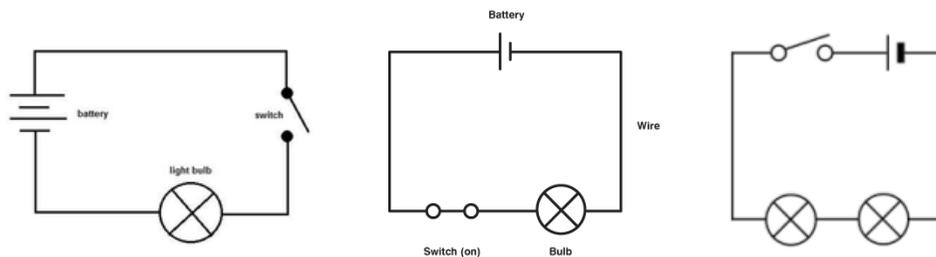
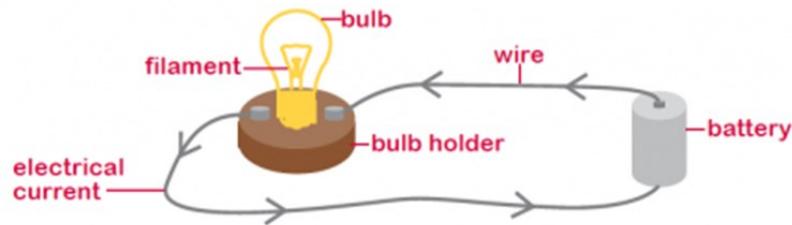


Electricity Knowledge Organiser

Important facts to know by the end of the topic:

- Know that the brightness of a bulb is associated with the voltage.
- Compare and give reasons for variations in how components function.
- Use recognised symbols when representing a simple circuit in a diagram.
 - Construct simple series circuits.
- Be able to answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors



An electrical **conductor** lets electricity pass through. They are often metals but also includes water.

An electrical **insulator** does not let electricity pass through.

Sticky knowledge about electricity

Electricity travels at the speed of light. That's more than 186,000 miles per second.

Electricity comes from the power station, the wind, the sun, water and even animal's poo.

Electricity is a type of energy that build up in one place (static), or flow from one place to another (current electricity).

Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boils water and creates steam.

A popular way of generating electricity is hydropower. This is a process where electricity is made by water which spins turbines attached to generators.

A bolt of lightning can measure up to 3,000,000 volts, and it lasts less than one second.

Electric fields work in a similar way to gravity. Whereas gravity always attracts, electric fields can either attract or repulse.

Battery	A container consisting of one or more cells where chemical energy is converted into electricity and used as a source of power
Bulb	A glass bulb which provides light by passing an electrical current through a filament
Buzzer	An electrical device that makes a buzzing noise and is used for signalling
Cell	A device containing electrodes that is used for generating current
Circuit	A complete and closed path around which a circulating electric current can flow
Conductor	A material or device which allows heat or electricity to carry through
Current	A flow of electricity which results from the ordered directional movement of electrically charged particles
Electricity	A form of energy resulting from the existence of charged particles
Filament	A conducting wire or thread with a high melting point that forms part of an electric bulb
Motor	A machine powered by electricity that supplies motive power for a vehicle or other moveable device
Switch	A device for making and breaking the connection in an electric circuit
Voltage	An electrical force that makes electricity move through a wire, measured in volts

