## Knowledge Organiser

## **Electricity and Circuits**



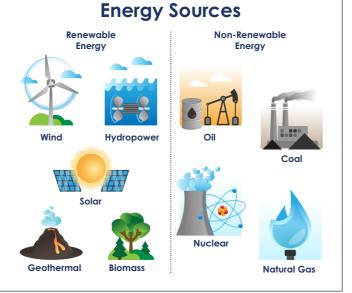
Glossary		
1	battery	a power source (made up of 2 or more cells)
2	buzzer	a component which turns electricity into sound
3	circuit	a route that starts and finishes in the same place
4	components	a part placed in a circuit
5	conductor	a material which does allow electricity to pass through it
6	electrical appliance	a piece of electrical equipment we use like a kettle
7	electrical current	the flow of electricity
8	electricity	a form of energy
9	electrons	tiny particles found in an atom
10	generated	when something is made or produced
11	insulator	a material which does not allow electricity to pass through it
12	light bulb	a component which turns electricity into light
13	motor	a component which turns electricity into movement
14	parallel circuit	an electrical circuit with branches (multiple pathways)
15	power source	something that generates electrical power
16	series circuit	an electrical circuit with no branches (one pathway)
17	static	something not moving
18	switch	a component which controls the flow of electricity
19	voltage	the power of the electrical current. This is measured in volts (v)
20	wires	metal made into a thin and flexible thread

## What is electricity and how is it generated?

Electricity is a useful energy because it can easily be converted into other types of energy such as heat, light, movement, or sound.

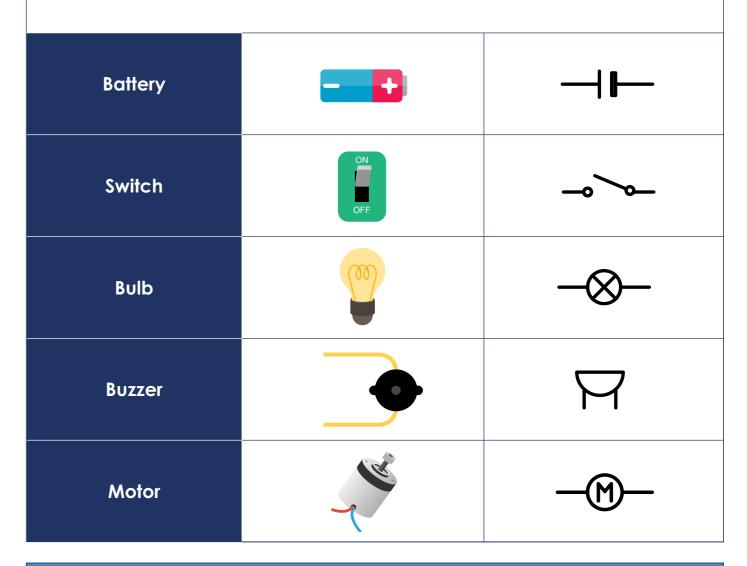
Electrical energy is made by **generators** which can be powered by many different energy sources such as coal, wind, hydropower (water) and solar power (sunlight).

The electrical current generated then flows along wire and cables to our homes for us to use.

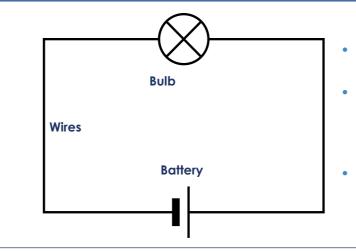


## What are the components of a circuit?

Electrical components are the different parts which make us electrical circuits. Each electrical component has a different function. To make drawing a circuit easier, each electrical component can be represented by a different symbol.









- A simple circuit is a complete circuit that electricity flows around.
- A simple circuit needs three components to work: a power source such as a battery, wires and a component like a bulb, buzzer or motor.
- If there is a gap in the circuit, electricity cannot flow and it will not work.