

Year: 6
 Term: Autumn 1
 Topic: Physics - Electricity



Most big appliances have to be plugged in. These are powered by **mains power**. Some smaller appliances can be powered by **batteries**. Some appliances have batteries that can be charged by mains power.

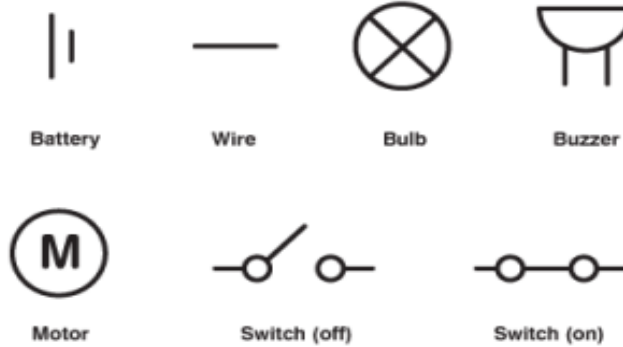


Most of the electricity in the UK is made using **non-renewable** power stations. These power stations burn oil, coal or gas to create steam which turns the generator. Oil, coal and gas are fossil fuels. They are non-renewable which means that they will eventually run out one day. This is because they are naturally occurring and take thousands of years to make. Burning these fossil fuels can also damage the environment as they produce gases such as carbon dioxide and methane.

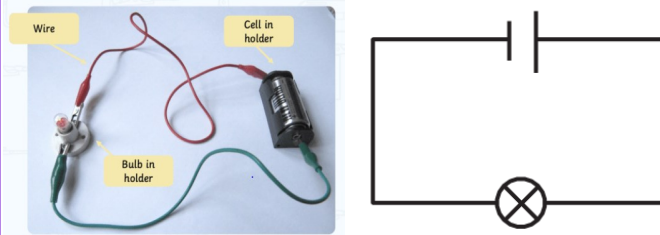
We can also make electricity using **renewable energy**. Renewable energy sources like the Sun, wind and sea can be used over and over again and should not run out. We are beginning to use these sources more as they do not damage our environment.



Symbols used to represent components in a circuit



The circuit has to be complete to allow the electricity to travel all the way around it.



Glossary

- appliance** A device or piece of equipment that has been made to perform a specific task.
- battery** A small item used to power small appliances.
- circuit** A route through which electricity flows.
- components** The parts of the circuit.
- conductor** Allows electricity to flow through it.
- electrical** Something that uses electricity to work.
- insulator** Doesn't allow electricity to flow through it.
- mains power** Electricity provided by power stations.
- non-renewable energy** Energy from a source that is depleted when used, such as coal, gas and oil.
- pylon** A tower used for keeping electrical wires above the ground.
- renewable energy** Energy from a source that is not depleted when used, such as wind or solar power.

Current is the steady flow of electricity This is measured by an ammeter in amperes (amps).

Voltage is the force that makes the current flow. This is measured in volts (V).

The higher the voltage, the higher the current and the louder the buzzer's volume will be.

You can increase the voltage by adding more batteries or using batteries with a higher voltage.

