



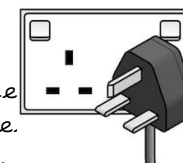
# Science Knowledge Organiser

## Electricity



There are two types of electric current:

**Mains Electricity:** power stations send an electric charge through wires to transformers and pylons. The underground wires carry the electricity into our home via wires in the walls and through our plug sockets.



**Battery electricity:** batteries store chemicals which produce an electric current. Eventually even rechargeable batteries will stop producing an electric current.



Lightening and static electricity are examples of electricity occurring naturally but for us to use electricity to power appliances we need to make it.

Key vocabulary	
<b>electricity</b>	The flow of an electric current or charge through a material, e.g. from a power source through wires to an appliance.
<b>generate</b>	To make or produce,
<b>renewable</b>	A source of electricity that will not run out. These include solar, nuclear, geothermal, hydro and wind.
<b>non-renewable</b>	This source of energy will eventually run out and so will no longer be able to be used to make electricity. These include fossil fuels - coal, oil and natural gas.
<b>appliances</b>	A piece of equipment or device designed to perform a particular job, such as a washing machine or mobile phone.
<b>battery</b>	A device that stores electrical energy as a chemical.
<b>circuit</b>	A pathway that electricity can flow around. It includes wires and a power supply and may include bulbs, switches or buzzers.
<b>electrical conductors</b>	An object or material that allows electricity to pass through it.
<b>electrical insulators.</b>	An object or material that does not allow electricity to pass through it.

Coal, oil and natural gases are fossil fuels which, when burnt, produce heat which can be used to generate electricity.



Electricity can be generated from wind power used to turn windmills and hydroelectric power from water used in dams. The Sun's rays can be converted into electricity by solar panels.



Nuclear energy is created when atoms are split. This creates heat which can be used to generate electricity. Geothermal energy is heat from the Earth that is converted into electricity.

