

# Electricity

## Key Vocabulary

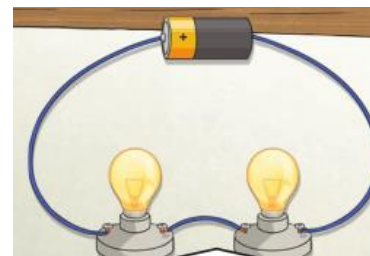
<b>electricity</b>	The flow of an electrical current through a material, e.g. from a power source through wires to an appliance.
<b>generate</b>	To make or produce
<b>renewable</b>	A source of electricity that will not run out. These include solar, nuclear, geothermal, hydro and wind.
<b>non-renewable</b>	A source of electricity that 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 a device designed to perform a particular job, such as a washing machine or mobile phone.
<b>cell</b>	In electricity a cell is a device used to store electrical energy as a chemical.
<b>battery</b>	One or more cells, connected.
<b>Mains electricity</b>	Power stations send an electrical charge through wires to transformers and pylons. Underground wires then carry this to our homes via wires in the walls and it comes out through plug sockets.
<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>	These are materials which allow electricity to flow through them. Metals are good conductors.
<b>electrical insulators</b>	These are materials which do not allow electricity to flow through them. Wood, plastic and glass are good insulators.

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

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

Electricity can also be generated from wind power used to turn windmills and hydroelectric power from water used in dams. The Sun's rays can also 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.



### Circuits

Electricity can only flow around a complete circuit that has no gaps. There must be wires connecting the positive and negative end of the power supply. Switches can be used to open or close a circuit.

