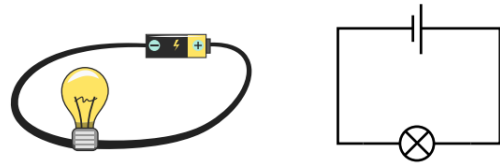


Electricity – Science Knowledge Organiser

appliance	a device or piece of equipment made to perform a specific task.
battery	multiple cells used to power appliances.
cell	a single item used to power devices.
circuit	a route through which electricity flows.
components	the parts of a circuit.
conductor	allows electricity to flow through it.
electrical	something that uses electricity to work.
insulator	does not allow electricity to pass through it.
mains power	electricity provided by power stations.
portable	can be easily carried around
pylon	a tower used for keeping electrical wires above the ground.
voltage	Voltage is the difference in electrical energy between two parts of a circuit. It can be measured using a voltmeter and is measured in volts.



Simple Circuit

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

How is electricity made?

Electricity can be made using a simple generator. We could make one in school using a magnet and a coil of wire. If we turn a magnet around inside a coil of wire, it creates electricity in the wire. Doing this only makes a small amount of electricity so we need large generators to make enough for everyone. These generators are usually in power stations. There are different types of power stations.

Electrical Appliances



Most of the big appliances in our houses we have to plug in. These are powered by mains power. Some smaller appliances can be powered by batteries. Some appliances have batteries that need to be charged by mains power.

Scientific Symbols

battery or cell	bulb	wire	open switch (off)	close switch (on)	motor	buzzer

When scientists draw electrical circuits, they use scientific symbols to show the different components.

Non-Renewable Sources of Energy

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.



Renewable Sources of Energy

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.

