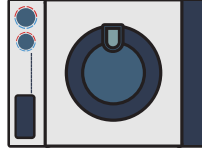


Electrical Appliances



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.

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.

Non-Renewable 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.

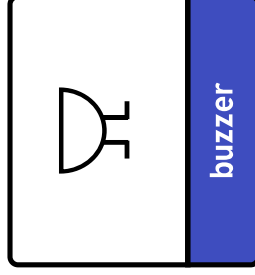
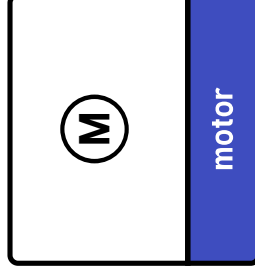
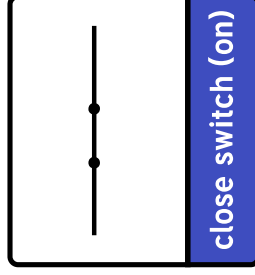
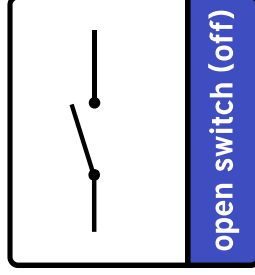
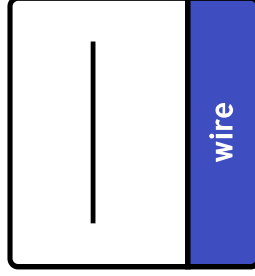
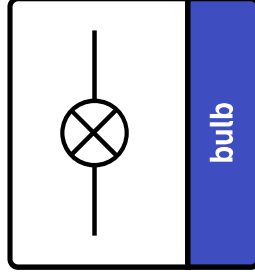
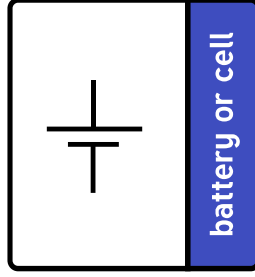
Renewable Mains Power

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.

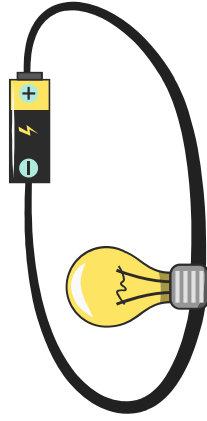


Scientific Symbols

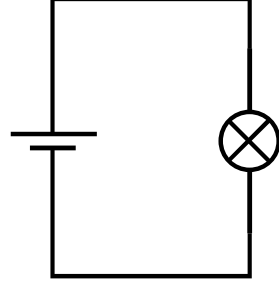
When scientists draw electrical circuits, they use scientific symbols to show the different components.



Simple Circuit



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



Key Vocabulary

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 a 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.

Portable – can be easily carried around.

Pylon – a tower used for keeping electrical wires above the ground.

