



What should I know already?

- *Examples of appliances which run on Electricity*
- *Dangers of Electricity*
- *Generators of Electricity*
- *Recognise some common conductors and insulators*

Things I need to know

Diagrams

Common appliances that run on electricity

Many of the items that we use every day run on electricity. Electricity can be supplied from the mains (these are plugged into power supplies) or from batteries. Below are a selection of appliances that run on electricity:



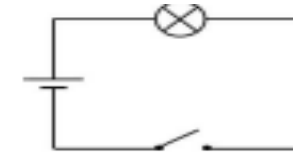
Different appliances run on different amounts of electrical charge. An ammeter can be used to measure amps (the size of the charge).



Vocabulary



The light bulb will light in this circuit because the switch is closed.



The light bulb will not light in this circuit because the switch is open.



Closed switch - electricity will flow because the circuit is complete



Open switch - electricity won't flow because the circuit is not complete.

- Construct a simple series electrical circuit and name basic parts such as bulb, wire, switch and buzzer.
- Investigate simple circuits involving lighting a lamp.
- Recognise that a switch opens and closes a circuit
- Identify good and less effective conductors and insulators.

Electrical conductors and insulators

A conductor is a material that allows charges to flow easily throughout the material. Metals are often good conductors. Examples include: silver, gold, copper, steel and salt water.

An insulator is a material that does not allow charges to flow easily throughout the material. Examples include: rubber, glass, oil, diamond and dry wood.



Key Vocabulary

electricity	The flow of an electric current or charge through a material, e.g. from a power source through wires to an appliance .
generate	To make or produce.
renewable	A source of electricity that will not run out. These include solar, nuclear, geothermal, hydro and wind.
non-renewable	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.
appliances	A piece of equipment or device designed to perform a particular job, such as a washing machine or mobile phone.
battery	A device that stores electrical energy as a chemical.