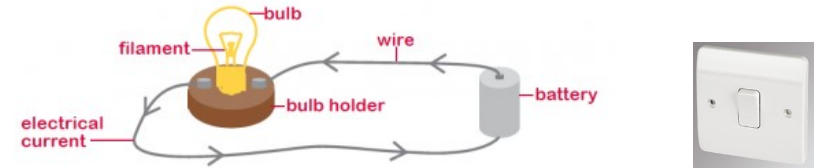


## Key vocabulary

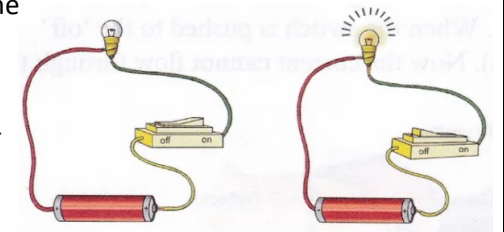
electricity	The flow of an electric current or charge through a material.
appliances	A piece of equipment or device designed to perform a particular job (e.g. washing machine, mobile phone).
circuit	A pathway that the electric current can flow around. It must have no breaks in it (a closed circuit) for electricity to flow.
battery (cell)	A device that stores electrical energy as a chemical.
wire	Thin, flexible threads that transport electricity.
bulb	A device that produces light from electricity.
buzzer	A device that produces a buzzing sound from electricity.
switch	A device that changes the flow of electricity (breaks or completes the circuit).
conductor	A material that allows electricity to flow through freely.
insulator	A material that does not allow electricity to flow through.

## Simple series electrical circuit

Electricity can only flow around a complete circuit that has no gaps. There must be wires connected to the positive and negative ends of the battery.



**Switches** can be used to open or close the circuit. When turned off, a switch breaks the circuit to stop the flow of electricity. When the switch is on, the circuit is complete and the electric current is able to flow around the circuit.



Electricity is a type of energy. It can be created in different ways.



It is used to power lots of everyday things. Some appliances need to be plugged into a socket (mains electricity) and others have a battery to make them work.



## Conductors and insulators

A conductor of electricity is a material that allows electricity to flow through it. Metals are good conductors. Materials that don't allow electricity to flow through freely are called insulators. Wood, plastic and glass are good insulators.



## Staying Safe with Electricity

- Don't pull wires.
- Don't put your fingers in sockets.
- Don't fly kites or climb trees near power lines.
- Don't use radios or hair dryers near water.



## Knowledge objective

## Self-assessment (✓)

I can identify common appliances that run on electricity.	
I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs,	
I can identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a com-	
I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple	
I can recognise some common conductors and insulators, and associate metals with being good conductors.	