



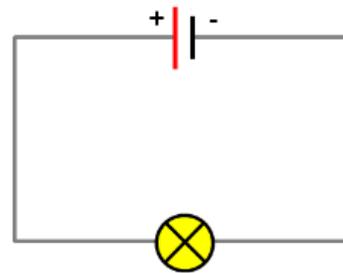
# Electricity Year 4

## What I need to know

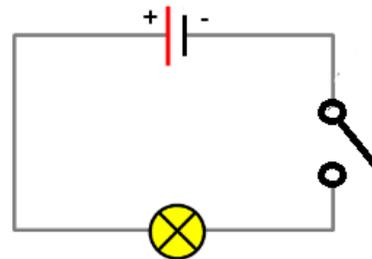
- Many household devices and appliances are powered by electricity. Some are powered by the mains electricity and some are powered by batteries.
- An electrical circuit consists of a cell or battery connected to a component using wires.
- If there is a break in the circuit or a loose connection the component will not work. A switch can be added to a circuit to turn the component on or off.
- Metals are good conductors so can be used as wires in circuits. Most non-metals are insulators.

## Component symbols and Circuits

		<b>BULB</b>
		<b>BUZZER</b>
		<b>MOTOR</b>
		<b>WIRE</b>
		<b>BATTERY/CELL</b>
		<b>SWITCH</b>



This lamp will turn on because the circuit is closed and the electrical current can flow all the way around it and power the lamp. This is a complete circuit.



This lamp will not turn on because the switch is open so the circuit is not complete and the electrical current will not flow all the way around it. This is a broken circuit.

## Key Vocabulary

<b>appliance</b>	A device or machine that can be used at home to do a job or such as cleaning or cooking. Appliances are often electrical.
<b>Device</b>	An object that has been created to do a particular job.
<b>Electricity</b>	A form of energy that can be carried by wires and is used for heating, lighting and to power appliances and devices.
<b>Component</b>	One of the parts that makes up something else, like an electrical circuit.
<b>Current</b>	A flow of electricity through a wire of circuit.
<b>Circuit</b>	A complete route which an electric current can flow around.
<b>Conductor</b>	A material that heat or electricity can pass through of along.
<b>Insulator</b>	A material that a heat or electricity does not pass through well (a non-conductor).
<b>Battery</b>	Small devices that provide the power for small electrical items such as torches
<b>Mains</b>	Where the supply of water, gas or electricity enters a building.
<b>Symbol</b>	A picture used to represent or show an actual object in an electrical circuit.

## Common household appliances

Toaster	Lamp	Vacuum cleaner	Dishwasher	Kettle	Torch

Insulators			Conductors		



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