



Science focus

Electricity

Year 6

Autumn Term

## What? (Key Knowledge)

### Key Individuals

Thomas Edison	Thomas Edison invented the modern lightbulb. While lightbulbs were not a new idea, he did improve on the previous designs, which were not as useful as they did not stay lit for very long!
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### Key Information

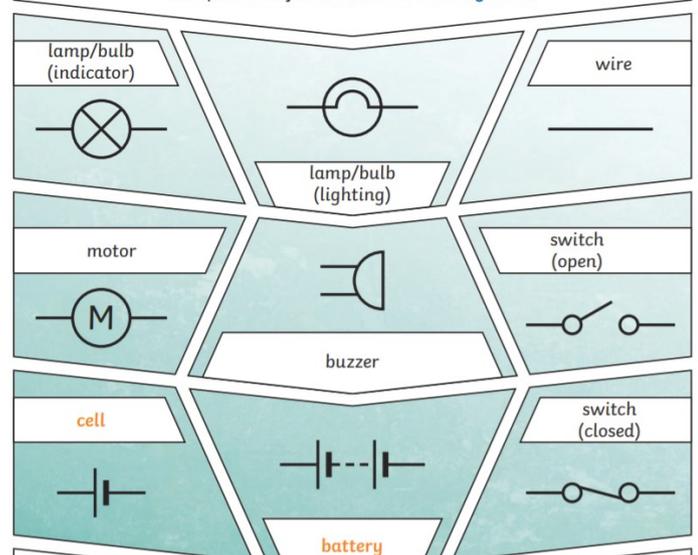
Series circuit	A circuit that has only one route for the current to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of current stops.
Generating electricity	Electricity can be generated from: wind turbines, solar panels, power stations, hydro (water) power, physical dynamo
How to make a buzzer louder	<ul style="list-style-type: none"> <li>Remove wires</li> <li>Add more cells</li> <li>Remove other components</li> </ul>
How to make a bulb brighter	<ul style="list-style-type: none"> <li>Remove wires</li> <li>Add more cells</li> <li>Remove other components</li> </ul>
Why are tests sometimes repeated?	<ul style="list-style-type: none"> <li>To keep the test fair</li> <li>Improve accuracy</li> <li>Check results</li> <li>Find an average</li> </ul>
Switches	Switches can be used to open or close a circuit. When off, a switch 'breaks' the circuit to stop the flow of electricity. When on, a switch 'completes' the circuit and allows the electricity to flow.

## What? (Key Vocabulary)

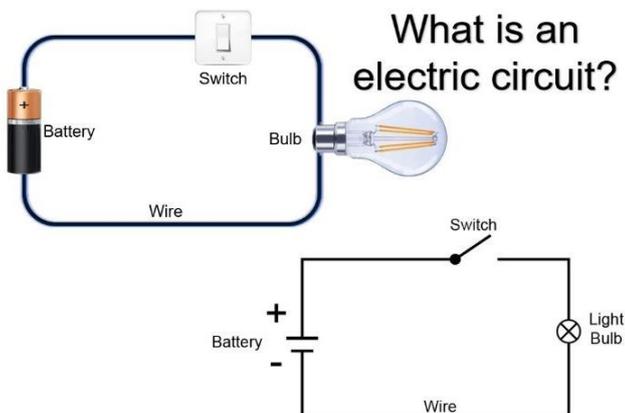
circuit	A path that an electrical current can flow around
symbol	A visual picture that stands for something else.
current	The flow of electrons, measured in amps.
voltage	The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.
variable	Something that can change the outcome of an experiment
cell/ battery	A device that stores chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells.
ammeter	A device to measure the electric current within a circuit
buzzer	A component which makes a noise within a circuit
motor	A component which powers movement within a circuit
bulb/lamp	A component which lights up within a circuit
voltmeter	A device to measure the voltage within a circuit
components	These are the different parts used within a circuit.
anomaly	Something that doesn't follow the pattern of what you would expect
decibel	A unit of measure for sound

## Symbols

Components of a **Circuit** and Their **Symbols**



These **symbols** can be used to create electrical **circuit** diagrams.



## Investigation

How can the brightness of a bulb be changed?

Key Events		
1939	1 <sup>st</sup> September	German troops invade Poland.
	3 <sup>rd</sup> September	Britain and France declare war on Germany.
1940	10 <sup>th</sup> May	The Battle of France begins.
	26 <sup>th</sup> May	Allied forces are evacuated from Dunkirk in France.
	10 <sup>th</sup> July	The Battle of Britain begins.
	7 <sup>th</sup> September	The Blitz begins.
1941	22 <sup>nd</sup> June	Germany invades the USSR (Soviet Union).
	7 <sup>th</sup> December	Japan bombs Pearl Harbor in the US.
1943	16 <sup>th</sup> and 17 <sup>th</sup> May	The Dambusters bombing raid is carried out.
1944	6 <sup>th</sup> June	The D-Day landings.
1945	7 <sup>th</sup> May	
	6 <sup>th</sup> and 9 <sup>th</sup> August	

