

# Electricity



## Year 6 Science: Electricity

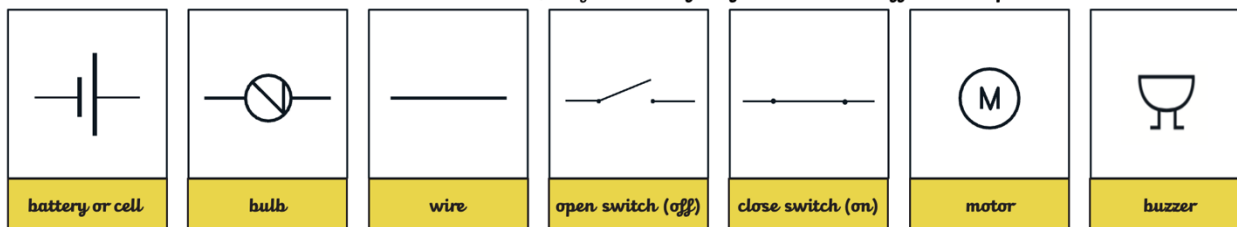
### Scientific Concepts

<b>Properties</b>	A quality that something is known by e.g., characteristic.
<b>Material</b>	The matter from which a thing is or can be made.
<b>Core Vocabulary</b>	
<b>Voltage</b>	The force that pushes electrons through a circuit to produce electricity.
<b>Cells</b>	In terms of electricity, it is a single unit containing electrodes used for generating current. A battery contains many cells.
<b>Electrons</b>	Very small particles that travel around an electrical circuit
<b>Current</b>	The flow of electricity in a circuit. It is measured in amperes (Amps). The larger the value in amperes, the more electricity is flowing in the circuit.

### Images/diagrams

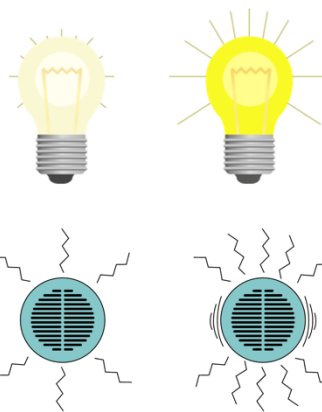
#### Scientific Symbols

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



## What happens when we increase the current?

- Increasing the current in a circuit with a bulb (either by **adding more cells** or using a cell with a **higher voltage**) will make the **bulb brighter**. **Be careful though, if you increase the current too much, you risk blowing the bulb!**
- If you increase the current in a circuit with a buzzer, the buzzer will get **louder**.



If you add **more bulbs** or **buzzers** to a circuit but keep the number of cells the same, then the **opposite** happens – they get **dimmer/quieter**.

### Key Knowledge

1	Electrons are very small particles that travel around an electrical circuit.
2	An electrical current is a flow of electrons, measured in amps.
3	Electricity can only flow around a complete circuit that has no gaps. There must be wires connected to both the positive and negative end of the power supply
4	Voltage is the force that makes the electricity current move through the wires. The greater the voltage, the more current will flow.
5	Switches can be used to open or close a circuit, affecting the flow of electrons.
6	A cell is a single unit that stores energy as a chemical. A battery is a collection of cells.