

## Knowledge Organiser—Year 6

How does electricity move around?

### Vocabulary

**Circuit:** a path that an electrical current can flow around.

**Symbol:** a visual picture that stands for something else.

**Cell/battery:** a device that stores energy as a chemical until it is needed. A cell is a single unit. A battery is a collection of cells.

**Current:** the flow of electricity around a circuit in the form of electrons.

**Voltage:** the force that makes electric current move through the wires. The greater the voltage, the more the current will flow.

**Resistance:** the difficulty that the electric current has when flowing around the circuit.

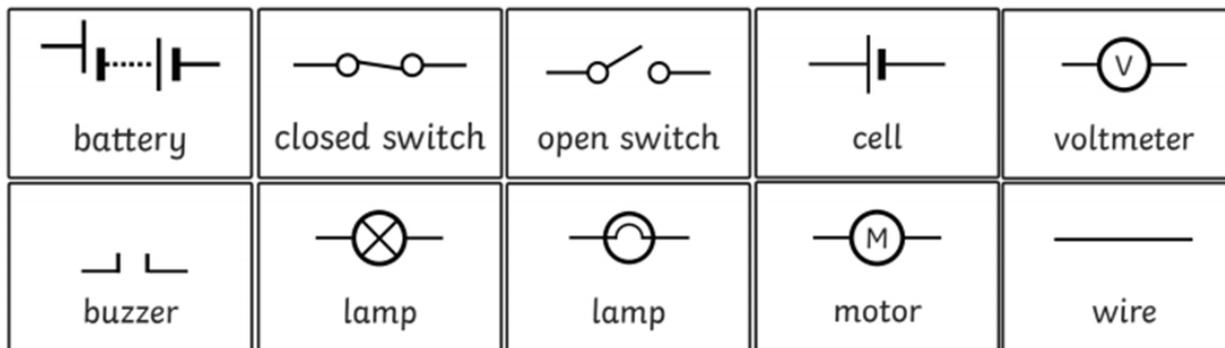
**Component:** one part of a whole. Without it, the whole could not function.

**Electrons:** very small particles that travel around and electrical circuit.

**Bulb:** A device used to convert electricity into light. A filament inside is heated until it glows.

**Switch:** A device for opening and closing electrical circuits.

**Wire:** A flexible length of metal used to carry a current in an electrical circuit.



### Key facts

A **series circuit** is a circuit that has only one route for the current to take.

If just one part of a series circuit breaks, the circuit is broken and the flow of current stops.

More batteries or a higher voltage create more power to flow through the circuit.

Fewer batteries or a lower voltage give less power to the circuit.

Shortening the wires means the electrons have less resistance to flow through so the current is weaker.

Lengthening the wires means the electrons have to travel through more resistance so the current is stronger.

If more bulbs or buzzers are added to a series circuit, the power has to be shared and as a result they will be dimmer or quieter.

**Electrical conductors** allow electricity to flow through them easily. Electrical insulators will not allow electricity to pass through them.

We use **symbols** to represent the various parts of an electric circuit.