

**What will we be learning?**

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
- Use recognised symbols (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram.
- Use and interpret circuit diagrams to construct a variety of more complex circuits predicting whether they will 'work'.

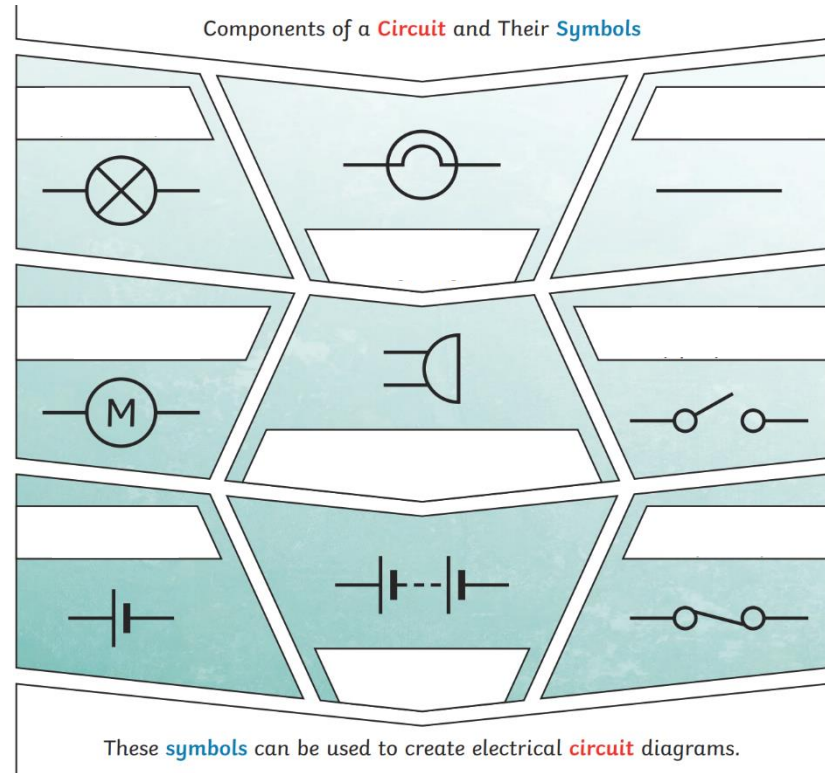
**Key facts**

- More batteries or a higher voltage create more power to flow through the circuit.
- Shortening the wires means the electrons have less resistance to flow through.
- Fewer batteries or a lower voltage give less power to the circuit.
- More buzzers or bulbs mean the power is shared by more components.
- Lengthening the wires means the electrons have to travel through more resistance.

**Key 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 chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells.
- **Current:** The flow of electrons, measured in amps.
- **Amps:** How electric current is measured.
- **Voltage:** The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.
- **Resistance:** The difficulty that the electric current has when flowing around a circuit.
- **Electrons:** Very small particles that travel around an electrical circuit.
- **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.
- **Broken Circuit:** A circuit with no current.

Label the symbols.



**What I have learnt.**