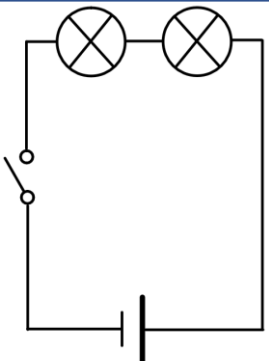




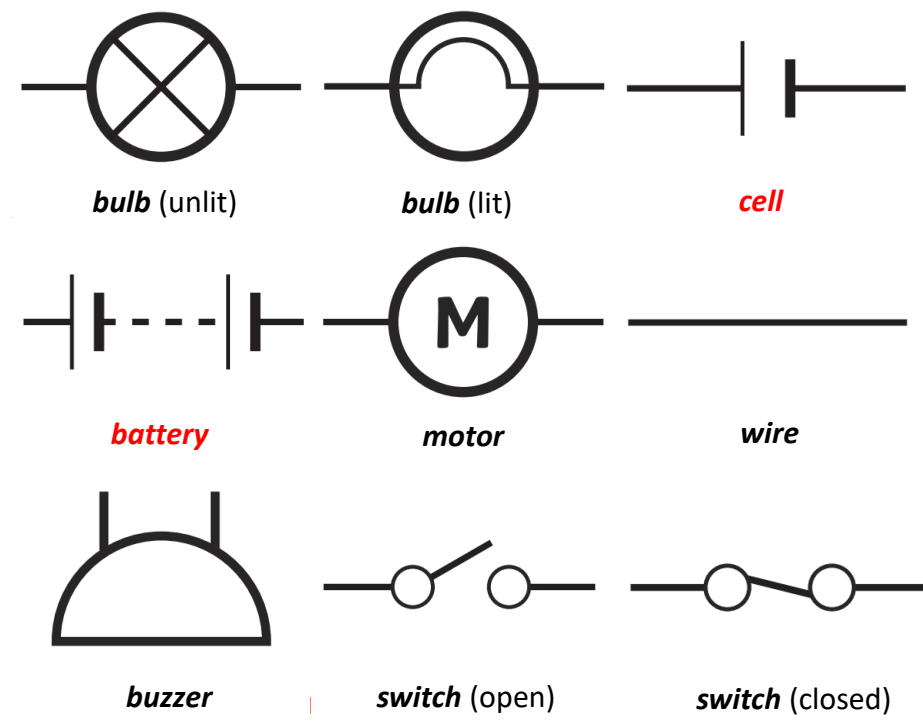
Key Vocabulary	Definition
<b>cell/battery</b>	A device that stores chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells.
<b>current</b>	The flow of electrons.
<b>electrons</b>	Very small particles that travel around an electrical circuit.
<b>resistance</b>	The difficulty that the electric current has when flowing around the circuit.
<b>voltage</b>	The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.



A series circuit is a circuit that has only one route for the electrical **current** to take. If just one part of this series circuit breaks, the circuit is broken and the flow of **current** stops.

Turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow. Any bulbs, motors or buzzers will then turn off as well.

The **components** of a **circuit** have recognised circuit **symbols** which can be used to draw simple circuit **diagrams**.



**bulb (unlit)**      **bulb (lit)**      **cell**  
**battery**      **motor**      **wire**  
**buzzer**      **switch (open)**      **switch (closed)**

**What will make a bulb brighter or a buzzer louder?**

- Adding more **cells**, or a **cell** with a higher **voltage**, creates more power to flow through the circuit.
- Shortening the wires means the **electrons** have less **resistance** to flow through.

Both of these actions would make a bulb brighter, a motor spin faster or a buzzer make a louder sound.

**What will make a bulb dimmer or a buzzer quieter?**

- 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**.

All of these things would lead to dimmer bulbs, a slower motor and a quieter buzzer.