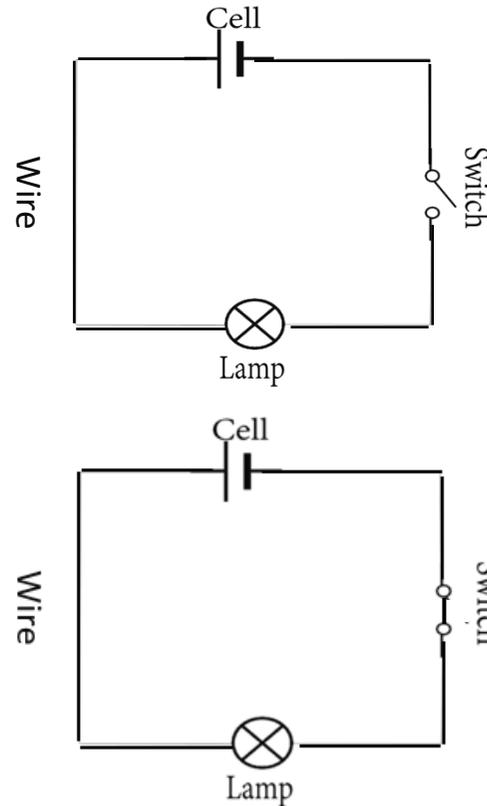
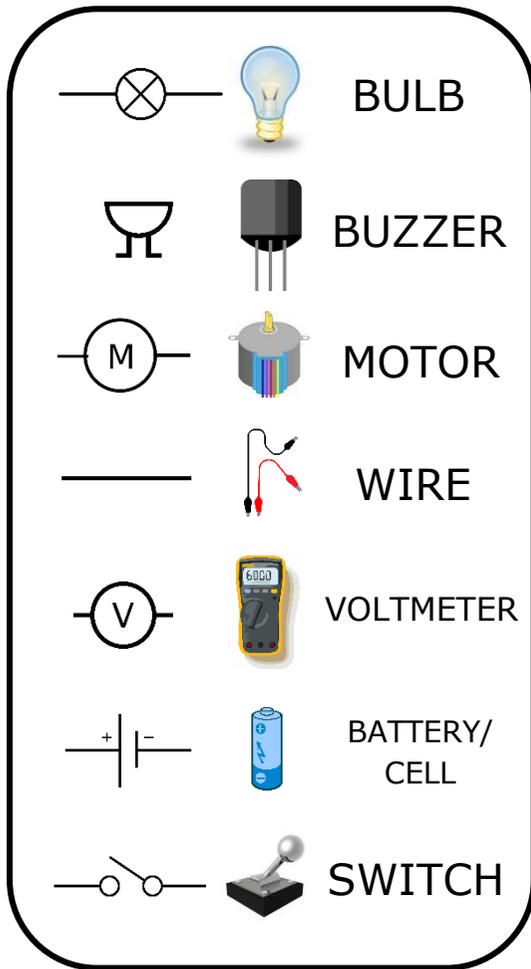


Electricity



This circuit will not work because the switch is open.

A circuit must be complete to work. It must also always have a battery/cell. This is an **incomplete circuit**.



This bulb in this circuit will light up because the switch is closed. This is a **complete circuit**.



Current: this is the amount of electricity flowing through the circuit (a flow of electrons moving in a loop in the circuit). It is measured in amps.

Voltage: is the difference in electrical energy between two parts of a circuit. It is measured in volts. The bigger the voltage, the bigger the current.

Variations in components

If you make the wires longer, the bulb will get dimmer. This is because there is more resistance.

If you add more bulbs, the bulbs get dimmer. This is because there is also more resistance.

If you add more batteries, the bulbs will get brighter. This is because there is less resistance and a greater current.

Prior Knowledge

Year 4 – how to construct a simple series circuit and name its parts; recognise a complete circuit; know some common conductors and insulators.

Vocabulary

Circuit, bulb, buzzer, motor, wire, voltmeter, battery, cell, switch, current, voltage