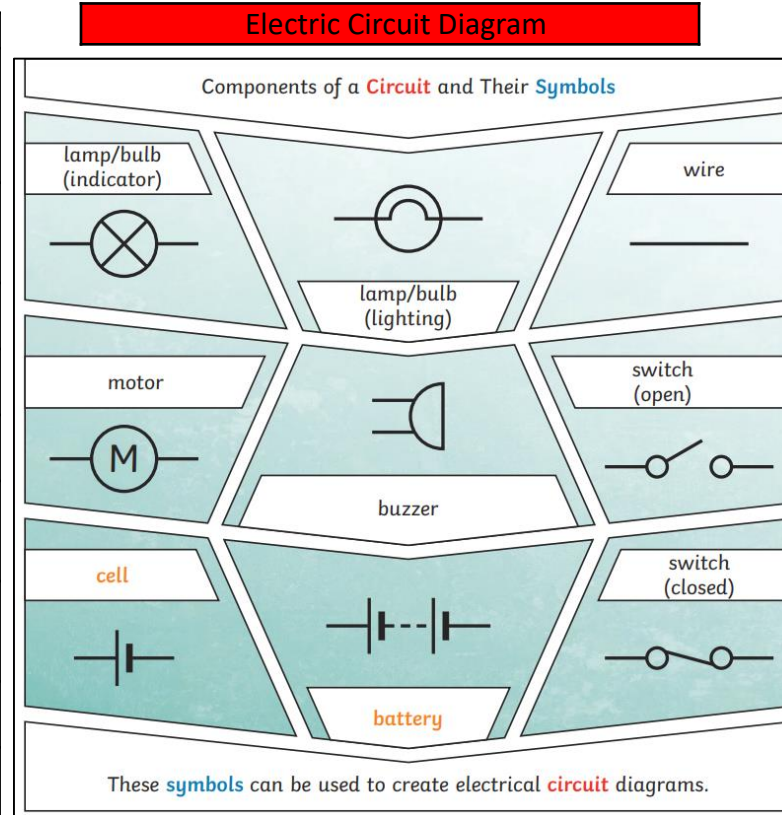
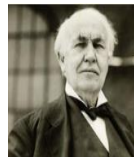


Key Vocabulary	
battery	A container consisting of one or more cells where chemical energy is converted into electricity and used as a source of power.
bulb	A glass bulb which provides light by passing an electrical current through a filament.
buzzer	An electrical device that makes a buzzing noise and is used for signalling.
cell	a single unit used for converting chemical or solar energy into electricity.
circuit	a complete path which an electric current can flow around.
switch	a small control for an electrical device which you use to turn the device on or off.
electricity	a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices.
motor	a device that uses electricity or fuel to produce movement.
amp	the measurement of how much electricity is flowing through a circuit measured using an Ammeter.
volts	a unit of electrical force.
components	the parts that something is made of
current	a flow of electricity through a wire or circuit.

Focused Scientist - Thomas Edison (1847 – 1931)
 Thomas Edison lived in the state of New Jersey the United State of America (USA). He is known as one of the greatest inventors in history. He invented the light bulb, the phonograph (which could record and play sound) and an early video camera called the Kinetograph.

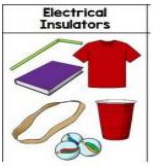
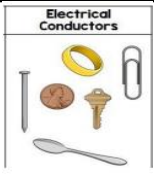


Electrical Safety

What are electrical conductors and insulators?

An electrical conductor lets electricity pass through it. They are often metal (e.g. iron, copper and gold) but also include carbon and water. As our bodies are 18% carbon, electricity is very dangerous to us and because water is a very good conductor of electricity we mustn't use electrical appliances near it!

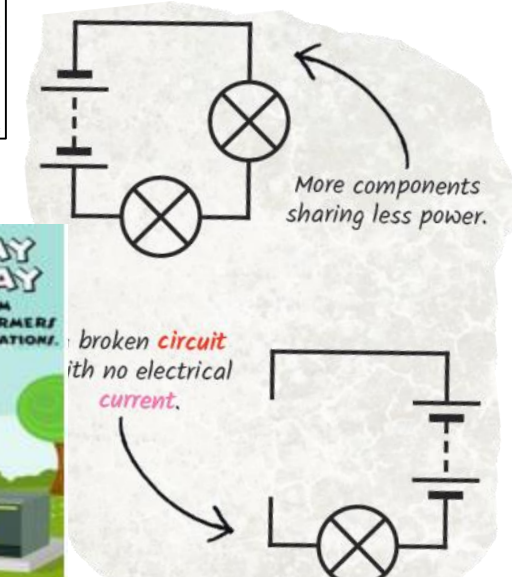
An insulator doesn't let electricity pass through it, e.g. wood, leather and plastic. Plastic is used to cover electrical wires because it is a good insulator.



Focused Scientist - Hertha Ayrton (1854–1923)
 Hertha Ayrton was a British suffragist, physicist, mathematician and inventor at a time when few women had access to opportunities in science, technology, engineering and mathematics. She was the first professionally recognised female electrical engineer.



Series 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.