Science – Year 4
Electricity

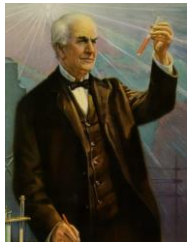
Vocabulary		
Tier 1	Tier 2	Tier 3
Switch	Electricity	Mains electricity
Wire	Appliance	Conductor
Bulb	Battery	Insulator
Buzzer	Circuit	Current
Complete	Cell	Series circuit
Incomplete	Motor	Component

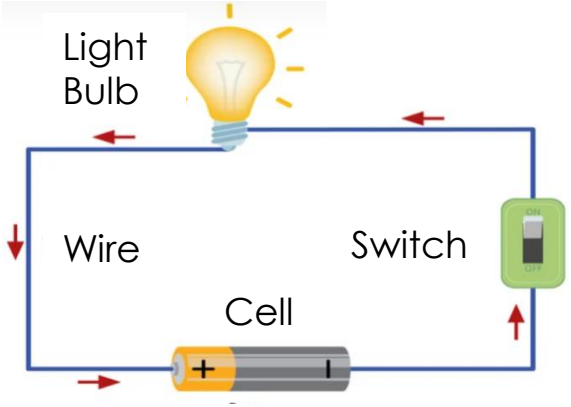
<u>Useful Resources</u>

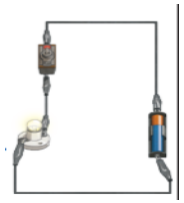
- Wires, bulbs, batteries and switches to create series circuits.
- Range of different materials to investigate conductors and insulators.
- Pictures cards to sort battery-powered and main-powered electrical appliances.

Key Scientists:

Thomas Edison (1847-1931) – was an American inventor who invented The first incandescent light bulb.





Series Circuit	Complete Circuit	Incomplete Circuit
Electricity flows in a single pathway. 	Electricity can flow. 	There is a break in the circuit that prevents electricity from flowing. 

<u>Key Questions/Facts</u>

How do we use electricity everyday?

- Lots of household items use electricity, such as washing machines and mobile phones.
- Electrical appliances are pieces of equipment, designed to perform a particular job.
- Electrical appliances can be mains-powered (plugged into a socket) or battery-powered.

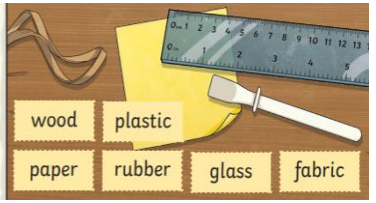
What are the components of an electrical circuit?

- An electrical circuit is a pathway that electricity can flow around. It is based around wires and a power supply. Examples of components (parts) you can add in to a circuit are bulbs, switches, buzzers and motors.
- A circuit where the components are arranged in one loop and the electricity flows around in a single pathway is called a 'series circuit.'
- Switches open or close a circuit.

What are conductors and insulators?

- A conductor of electricity is a material that will allow electricity to flow through it.
- Materials that are electrical insulators do not allow electricity to flow through them.

Electrical Conductors



Electrical Insulators