Electricity (Year 4)

Prior Learning

Year 3: Light

- Light travels to Earth from the Sun and other stars but can also be created by Electricity

Year 3 – Forces including magnets

- Lots of metals are magnetic. The ones that are, such as Iron, Nickel or Copper are good conductors of electricity.

Key Vocabulary

Function: Work or operate in a particular way

Cause and Effect: Something happening because a different thing prompted it to happen

Conduct: Transmit (a form of energy such as heat or electricity) by conduction.

Insulate: Prevent energy from passing through

Complete Circuit: A complete electrical network with a closed loop

Material: the matter from which a thing is or can be made

Key Facts

1) Appliances, like a toaster, run on electricity. Without electricity a lot of everyday objects wouldn't work, i.e. mobile phones, TV's, computers

2) A circuit needs to be complete for the electricity to flow through it and make things light up, heat up, etc

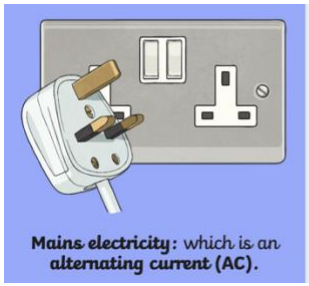
3) Switches, like a light switch or doorbell, can break or complete a circuit and allow electricity to flow

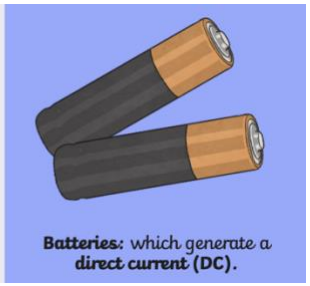
4) Conductors transmit electricity – some metals make good conductors

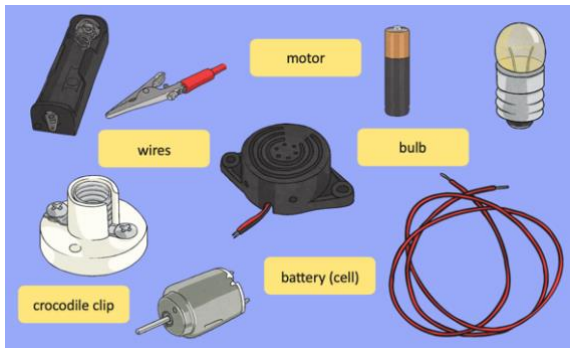
5) Insulators protect items – wires are protected by a plastic material

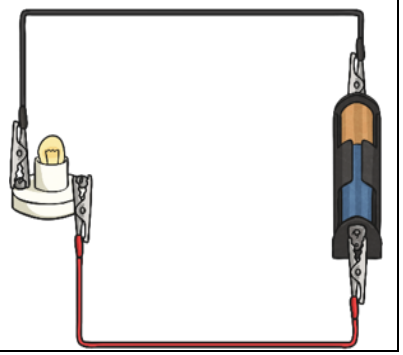
6) Electricity is extremely dangerous and should always be used safely

Images and Icons









Electricity (Year 6)

Prior Learning

Year 4: Electricity

- Electrical Conductors are materials that electricity can easily pass through, like copper, iron and gold.
- Electrical insulators don't allow electricity to flow through them, like rubber, plastic and wood
- Components in a circuit could involve a bulb, battery, cell, wires, switch or buzzer.

Key Vocabulary

Function: Work or operate in a particular way

Cause and Effect: Something happening because a different thing prompted it to happen

Component: A part of a larger whole

Dimmer: A device for varying the brightness of a light

Voltage: A unit of measurement showing how much electricity is running in a circuit

Variation: A change or difference

Key Facts

1) Electricity can only flow around a complete circuit that has no gaps. There must be wires connected to both the positive and negative end of the power supply.

2) Switches can be used to open or close a circuit, affecting the flow of electrons.

3) If more bulbs or buzzers are added to a circuit, the power has to be shared so they will be dimmer or quieter

4) Shortening wires in a circuit means the electrons have less resistance to flow through

5) The voltage and number of cells or batteries will affect the brightness of a bulb.

6) Static electricity and lightning are natural forms of electricity.

Images and Icons