Knowledge Organiser for Science

Class Two

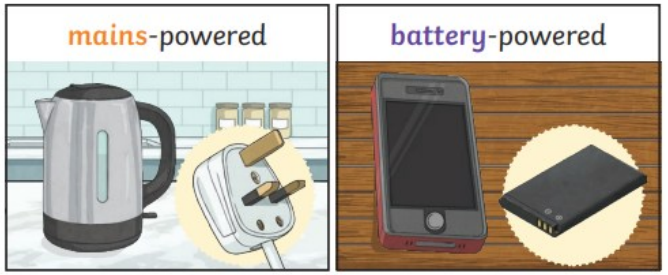
Key vocabulary	
Word	Definition
Electricity	The flow of an electric current through a material, e.g. from a power source through wires to an appliance.
Appliances	A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
Battery	A device that stores electrical energy as a chemical. Two or more cells joined together form a battery
Circuit	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

Appliances

Many everyday appliances rely on electricity for them to work. Some appliances use mains electricity (are plugged into a socket) and others have a battery to make them work. Examples of mains-powered appliances include toasters and televisions. Battery-powered appliances can include mobile phones and torches.

Umbrella question

How does electricity make things work?



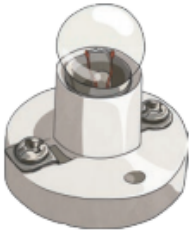
Hinge questions

- What is an appliance?
- How does a series circuit work?
- What makes a circuit complete?
- What is an electrical conductor?
- What job does a switch do?

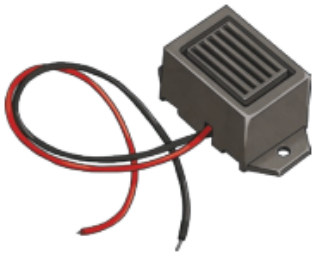
Components (Parts) Vocabulary

cell: Normally, we would call this a battery but scientifically, this is a cell. Two or more cells joined together form a battery.

bulb: Lights up in a complete circuit.

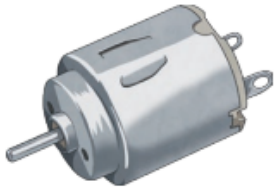


buzzer: Makes a noise in a complete circuit.



wires: Used to connect the different components in the circuit together.

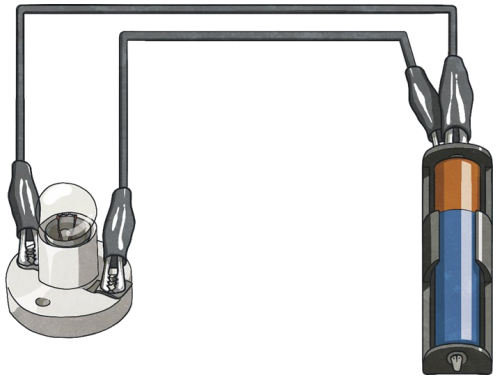
motor: Produces movement in a complete circuit.



switch: Used to turn other components in the circuit on or off.

Materials can be tested in a circuit to see if they are **electrical conductors** or **electrical insulators**.

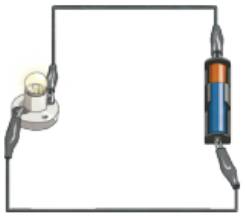
10p = metal = electrical conductors



Series Circuit

A circuit where the components are connected in a loop. Electricity flows through each component in a single pathway.

Complete Circuit



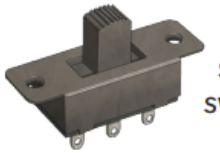
Electricity can flow. The components will work.

Incomplete Circuit

There is a break in the circuit that prevents the electricity from flowing. The components will not work.

Switches can be used to open or close a circuit. When off, a switch 'breaks' the circuit to stop the flow of electricity. When on, a switch 'completes' the circuit and allows the electricity to flow.

push button switch



slide switch