

Electricity

Crucial Knowledge:

- Electricity is the flow of electric charge (flow of electrons) in one direction
- A circuit always needs a power source
- There are two types of electric charge – mains and battery
- Conductors allow electricity to pass through
- Insulators do not allow electricity to pass through
- A cell is a single device which provides power
- A battery is two or more cells together which provides power

Extended Knowledge:

- Circuits can contain different electrical components such as bulbs, buzzers and motors which allow electricity to pass through
- Electricity can only flow around a complete circuit that has no gaps
- Metals are good conductors (e.g. iron, copper and steel)
- Plastic is a good insulator
- Insulators are used to cover electrical items for safety reasons
- Open switches break the flow of electric charge (turns off a bulb or buzzer)
- Closed switches complete the circuit (turns on bulb or buzzer)

