



Statutory Requirements:

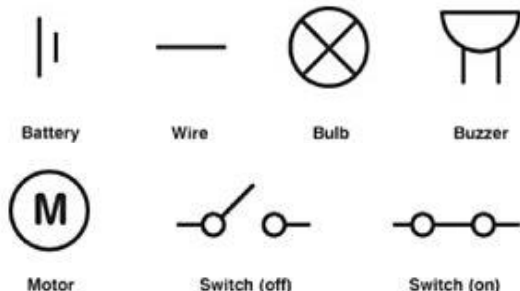
- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- Use recognised symbols when representing a simple circuit in a diagram

Working Scientifically:

- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- Using test results to make predictions to set up further comparative and fair tests
- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results in clear written forms such as displays and other presentations

Key Knowledge:

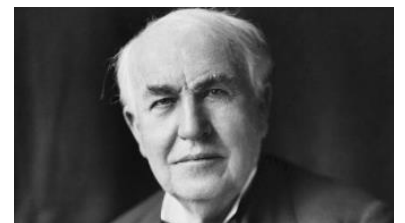
- A circuit always needs a power source, such as a battery.
- Higher voltage cells result in brighter lamps and louder buzzers.
- When a switch is open (off), electricity cannot travel around the circuit. When a switch is closed (on), electricity can travel around the circuit.
- Components in a circuit can be represented in a circuit diagram using circuit symbols.



Key Vocabulary:

- Electricity
- Voltage
- Series Circuit
- Component
- Bulb (Lamp)
- Buzzer
- Switch
- Motor
- Battery
- Cell
- Brightness
- Volume
- Circuit Diagram
- Circuit Symbol

Key Scientists:



Classic

Thomas Edison (1847-1931)

Inventor of the fuse, light bulb and film camera.



Contemporary

Johnny Srouji (???? -)

Vice President of Hardware Technologies at Apple.