Year 6 Electricity and Circuits Knowledge Organiser

Selected Vocabulary and Definitions

Battery/Cell	the power source in a circuit
bulb	an electrical component which lights up in a circuit
buzzer	an electrical component that changes electrical energy into sound
circuit	a circuit is formed when electricity flows through the electrical components
circuit diagram	a diagram that uses conventional symbols to represent the components of an electrical circuit
current	a flow of electricity around a circuit
electrical conductor	a material that allows electricity to flow through it e.g. metals
electrical insulator	a material which does not allow electricity to flow through it e.g. wood
fuse	an electrical component which will burn out in order to break a circuit in an emergency
mains electricity	electricity supplied for use in homes and businesses
motor	an electrical component which rotates causing something to turn
resistor	an electrical conductor that makes it difficult for electricity to flow in a circuit
switch	a device that causes a break in the flow of electricity
terminal	the end of a cell or battery – each cell has a positive (+) and a negative (–) terminal
Wire, cable, lead or flex	a long piece of metal that conducts electricity.

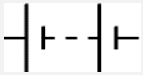
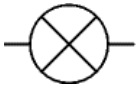
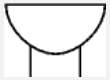
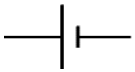
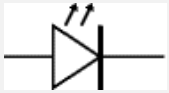
Curriculum Objectives

- I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit.
- I can 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.
- I can use recognised symbols when representing a simple circuit in a diagram.

Key Questions

- Draw a circuit diagram including 2 cells, a bulb, a buzzer, wires and a switch.
- If you added another cell, what would happen? Why? Explain.
- Explain the term “voltage.”
- Explain the difference between a “cell” and a “battery.”
- What is a “parallel circuit”, why are they used?

Circuit Component Diagrams

Battery	
Bulb	
Buzzer	
Cell	
L.E.D (Light emitting diode)	
Motor	
Resistor	
Closed Switch	
Open Switch	
Wire	