Year 6 - Electricity (Physics/Chemistry)

Working Scientifically Focus: Setting up tests and enquiries and recording data

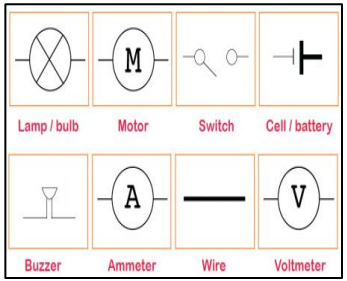
Prior learning:

Year 4:

- Identify common appliances that run on electricity
- Construct simple series circuits, including cells, bulbs, switches and buzzers
- Recognise that a switch opens and closes a circuit
- Recognise common conductors and insulators

In this topic, we are learning to:

- 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.



Key Vocabulary:

Circuit	A complete circular path which allows electricity to flow through
Cell	A single unit which produces chemical energy
Battery	A connected group of electrical cells
Bulb	Globe surrounding filament of light
Buzzer	A signaling device that makes a buzzing sound
Motor	A machine that converts energy into motion
Switch	Control device for making or breaking or changing the connections in a circuit
Voltage	A measure of electrical energy
Circuit symbol	Character used to represent part of electrical circuit
Circuit diagram	A drawing that represents an electrical circuit

Questions you will know the answers to...

How does static electricity work?
How can the brightness of a bulb be affected by the circuit?
How can the volume of a buzzer be affected by the circuit?
What is a conductor and an insulator?

Working Scientifically Assessment Focus:

SETTING UP TESTS AND ENQUIRIES

- Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Select from a range of practical resources to gather evidence to answer their questions. Carry out fair tests, recognising and controlling variables.
- Decide what observations or measurements to make over time and for how long. They look for patterns and relationships using a suitable sample.

RECORDING DATA

- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Decide how to record and present evidence. Record observations e.g., using annotated photographs, videos, labelled diagrams, observational drawings, labelled scientific diagrams or writing.
- Record measurements e.g., using tables, tally charts, bar charts and line graphs.
- Record classifications e.g., using tables, Venn diagrams, Carroll diagrams and classification keys. Present the same data in different ways to help with answering the question.