Science Overview – Electricity

Year Six

Autumn Term

Key Question: What impact did WWII have on the World and society today?

National Curriculum

- 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.

SUBSTANTIVE KNOWLEDGE

1) Know the components of a circuit and draw a circuit using the correct symbols.
2) Know what might impact the function of components.
3) Know what happens when more/less batteries are added to a circuit.
4) Know how to make bulb brighter and a buzzer louder.
5) Know how to make a bulb dimmer or a buzzer quieter.
6) Know what a series circuit is.

Key Vocabulary	circuit, symbol, cell/battery, current, amps, voltage, resistance, electrons
Previous year groups key vocabulary:	electricity, appliances, battery, circuit, cell, wires, component, mains electricity, electrical conductor, electrical insulator (This is vocabulary from Y4)
Disciplinary Concepts	• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. • using test results to make predictions to set up further comparative and fair tests.
Enquiry type to cover and enquiry suggestion	**Comparative and fair testing (enquiry type)** How does the voltage of batteries in a circuit affect the brightness/volume of a lamp/buzzer?
Learning Milestones /Assessment	I can… • match a circuit component up with the correct symbol. • draw a circuit using the symbols. • describe what might happen to a circuit in different circumstances- switch open, two batteries present etc.