



Year: 9

Subject: Physics

Topic: Electricity

Knowledge and Understanding to be developed:

Pupils should use and develop their skills, knowledge and understanding by investigating the science involved in a range of contemporary devices/machines and evaluate different energy resources and possibilities.

Homework:

Work through Electricity booklet

Lessons	Skills/practicals
Lesson 1: Circuit Symbols Model circuits using simple circuit diagrams. Use the idea of a complete circuit to test whether different materials conduct electricity. explain how electricity is carried	Class Practical: Circus practical particles
Lesson 2 Series Circuits measure the current at different points in the circuit and state its units state the pattern observed about current throughout a series circuit explain what current is	Class Practical: Series circuits
Lesson 3 Parallel Circuits identify a circuit as being either parallel or series based on a diagram or ready-made circuit describe some differences between series and parallel circuits explain these differences and patterns found using ideas of current and voltage	Class Practical: Parallel circuits
Lesson 4 Voltage To measure the voltage at different points in a circuit and state its units To explain what happens to the voltage across components in series and parallel circuits	Class practical: Metals and non metals conducting heat from hot water
Lesson 5 Resistance of a wire State what is meant by voltage and resistance Describe what happens to wires when electricity flows through them Describe the relationship between resistance and current.	Class Practical: <i>Measure to complete a task ks3.5</i> <i>Use a wide range of technical terms, language expression consistent with subject knowledge</i> <i>Language 9.WL2</i> <i>Synthesise and analyse information to gain in depth understanding Response & analysis 9RA3</i> <i>Distiguish between facts evidence and bias response & analysis 9.RA5</i> <i>Plan appropriately to develop writing for different audiences Meaning purposes readers 9.WM3</i> <i>select structures to organise writing using appropriate features effectively Structure and organisation 9WS1a</i>
Lesson 5 Plug identify the parts of a plug describe why parts of a plug are made from certain materials explain how a fuse works and select the most appropriate fuse for an appliance	

Lessons 6: The dangers of electricity	
Identify electrical hazards in a scenario.	
Explain some safety precautions to be followed when using electricity. Apply your knowledge of voltage, current and electrical safety to novel situations	