

Class 5 Science: Year A: Summer Term

Focus area in Nat Curriculum	Electricity - Physics		
NC objectives - key knowledge to learn	• 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.		
Enquiry Types	Carry out a range of pulse rate investigations: • fair test – identifying variables and collecting and using data to justify ideas • pattern seeking – how the brightness of a lamp changes if you add extra lamps in a series; does the number of batteries affect how the motor spins? • Identifying & classifying; reasoning - which engineer is making mistakes in his circuit drawings?		
Relevant prior learning		<i>Prior learning</i>	<i>Teaching points/notes</i>
	Y4	identify common appliances that run on electricity; construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers; identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery; recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit; recognise some common conductors and insulators, and associate metals with being good conductors.	
	Y6		Initial lesson as assessment opportunity for all children. Address any misconceptions regarding prior learning
Enrichment opportunities	Design, create and test a game that involves a circuit to go on a stand at the Summer Fair - cross curricular Design & Technology Write a letter to a toy company complaining about identified faults in an engineer's circuit designs for a toy Persuasive text extolling the virtues of a particular game the children have designed for the Summer Fair		
Outdoor learning	N/A		
Equalities, diversity and inclusion	Consider career pathways linked to this area of physics - Ogden Trust resources Women in Science - 50 fearless pioneers who changed the world - Rachel Ignatofsky The Speed of Starlight - a visual exploration of Physics, Sound, Light and Space - Colin Stuart/Ximo Abadia		

Assessment of learning	• Vocabulary - pre and post Unit assessment • Bath Spa Assessment • Low-stakes quizzing at start of lessons • Discussions - highlight misconceptions and clarify • Use of vocabulary when writing up investigations / ability to present data clearly in diagrams and tables • Possible end of unit quiz
Vocabulary	Science Vocabulary Document