

Medium Term Plan –Science – Summer 1 Year 4 – Electricity

Teachers must use in conjunction with Science Progression document (Prior Knowledge and Skills).



Lesson	National Curriculum links	Objective	Substantive knowledge	Disciplinary knowledge	Specific Vocabulary	Activities and resources
1/6	Identify common appliances that run on electricity	To identifying common appliances that run on electricity.	To know items at home and school that are powered by electricity. To know electrical and non-electrical appliances.	I can identify electrical and non-electrical appliances. I can group appliances based on whether they are mains- or battery powered. I can present my findings.	Appliance, mains, battery, electricity, powered, device, classify.	<ul style="list-style-type: none"> • sorting the appliances into electrical/non-electrical and battery/mains powered
2/6	Construct a simple series electrical circuit, identifying and naming its basic parts, including	To know how to build a circuit.	To identify circuit components. To know how to build a circuit.	I can identify the different components (parts) in a circuit. I can explain how to work safely with electrical components. I can draw labelled diagrams of my circuits	Electricity, circuit, series circuit, bulb, wire, buzzer, switch, cell, battery, component, diagram.	<ul style="list-style-type: none"> • Build a circuit • Draw labelled diagrams of the circuit created
3/6	cells, wires, bulbs, switches and buzzers. Identify whether or not a lamp will light in a simple series	To investigate whether circuits are complete or incomplete.	To know if a circuit is complete or incomplete.	I can make a prediction (what do you think will happen?) about whether a circuit will work. I can identify circuits as incomplete or complete circuits. I can explain what makes a complete circuit	Circuit, electricity, series circuit, complete circuit, incomplete circuit, bulb, wire, battery, cell, energy ball, conductor.	<ul style="list-style-type: none"> • Children build a series of incomplete and complete circuits and record their predictions and findings.

	circuit, based on whether or not the lamp is part of a complete loop with a battery.			and why a circuit may be incomplete.		
4/6	Recognise some common conductors and insulators, and associate metals with being good conductors.	To investigate which materials are electrical conductors or insulators...	To know what conductor and insulator mean. To give examples of conductors and insulators.	I can say what electrical conductors and insulators are. I can carry out an investigation where I only change one thing and keep everything else the same. I can test materials to identify if they are electrical conductors or insulators.	Electricity, cell, bulb, battery, circuit, complete, incomplete, conductor, insulator, material, object, equipment, prediction (what do you think will happen?), results (what happened?), conclusion (what have we found out?)	<ul style="list-style-type: none"> Children test a range of materials in their circuits to check if they are insulators or conductors.
5/6	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.	To explain how a switch works in a circuit, build switches and report my findings.	To know what a switch is and the job it does in a circuit.	I can name some different types of switches. I can build a switch and use it in a series circuit. I can report my findings through giving a presentation.	Electricity, battery, cell, circuit, switch, bulb, wires, complete circuit, incomplete circuit, closed, open, on, off, slide switch, toggle switch, selector switch, push button switch	<ul style="list-style-type: none"> Add a switch into the simple series circuit
6/6		To discuss and solve problems about electricity.	To use my knowledge of electricity to answer questions.	I can apply my knowledge of electricity to new situations.	Appliance, battery-powered, mains-powered, electrical	<ul style="list-style-type: none"> Children use reasoning skills to answer

				<p>I can use my reasoning skills to answer questions and justify my answers.</p> <p>I can discuss my answers with others.</p>	<p>insulator, electrical conductor, component, bulb, cell, battery, wires, switch, complete circuit, incomplete circuit.</p>	<p>questions (mixed ability pair/group)</p>
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