

Electrical Systems
Progression of Knowledge Cycle A

Year R	Year 1	Year 2/3	Year 4/5	Year 6
			<p>Doodlers</p> <p><u>Children will know:</u></p> <ul style="list-style-type: none"> - Series circuits only have one direction for the electricity to flow. -When there is a break in a series circuit, all components turn off. -An electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. -A motorised product is one which uses a motor to function. - product analysis is critiquing the strengths and weaknesses of a product. - 'configuration' means how the parts of a product are arranged. 	<p>Steady Hand Game</p> <p><u>Children will know:</u></p> <ul style="list-style-type: none"> - 'form' means the shape and appearance of an object. -The difference between 'form' and 'function'. - 'fit for purpose' means that a product works how it should and is easy to use. -Form over purpose means that a product looks good but does not work very well. -The importance of 'form follows function' when designing: the product must be designed primarily with the function in mind. -Understand the diagram perspectives

				'top view', 'side view' and 'back'.
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Electrical Systems Progression of Knowledge Cycle B				
Year R	Year 1	Year 2/3	Year 4/5	Year 6
			Torches <u>Children will know:</u> - Electrical conductors are materials which electricity can pass through. -Electrical insulators are materials which electricity cannot pass through. -A battery contains stored electricity that can be used to power products. -An electrical circuit must be complete for electricity to flow. -A switch can be used to complete and break an electrical circuit.	As above

			<ul style="list-style-type: none">-The features of a torch: case, contacts, batteries, switch, reflector, lamp, lens.-Facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.	
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