

Year6				
<i>Topic</i>	<i>Prior Learning</i>	<i>Present learning</i>	<i>Misconceptions</i>	<i>Future learning</i>
<p>Electricity National Curriculum</p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Identify common appliances that run on electricity. (Y4 - Electricity) Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. (Y4 - Electricity) 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. (Y4 -Electricity) Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. (Y4 - Electricity) Recognise some common conductors and insulators, and associate metals with being good conductors. (Y4 - Electricity) 	<p>Knowledge and Understanding</p> <ul style="list-style-type: none"> -use of simple circuits in daily life appliances -how to use symbols to construct simple circuits -the terms; resistance, current and voltage -electrical safety measures giving reasons <p>Investigations:—</p> <ul style="list-style-type: none"> -plan a fair test to investigate how thickness of wire affects the amount of current -plan a fair test to investigate factors affecting loudness of a buzzer <p>Vocabulary: potency resistance battery voltage electrical insulator electricity switch</p>	<p>Some children may think:</p> <ul style="list-style-type: none"> larger-sized batteries make bulbs brighter a complete circuit uses up electricity components in a circuit that are closer to the battery get more electricity. 	<ul style="list-style-type: none"> Electric current, measured in amperes, in circuits, series and parallel circuits, currents add where branches meet and current as flow of charge. (KS3) Potential difference, measured in volts, battery and bulb ratings; resistance, measured in ohms, as the ratio of potential difference (p.d.) to current. (KS3) Differences in resistance between conducting and insulating components (quantitative). (KS3) Static electricity. (KS3)

