

## DT Class 3 Autumn 2 and Spring 1 Cycle B Electrical Systems

<p>As all children will only be visiting Electrical Systems once in the 3 year cycle, all children should be given the opportunity to attain all objectives however it is understood that not all objectives will be achieved due to age related technical ability.</p>	<p><b>Markers for Assessment</b></p>	
<p><b>Substantive Knowledge</b></p> <ul style="list-style-type: none"> <li>● To use simple circuit in product</li> <li>● to use number of components in circuit - confidently</li> <li>● To incorporate different components into their circuit e.g. switch, buzzers, bulbs and motors</li> <li>● To use different types of circuit in product</li> <li>● To think of ways in which adding a circuit would improve product</li> </ul> <p><b>Disciplinary Knowledge</b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>● Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>● Select from and use a wider range of tools and equipment to perform practical tasks accurately.</li> <li>● Select from and use a wider range of materials and components, including textiles according to their functional properties and aesthetic.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>● Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</li> </ul>	<p>Can the children independently make an electrical circuit that works?</p> <p>Have they considered how the electrical component will create function or ascetic qualities and incorporated this in their design?</p> <p>Are they able to evaluate what has gone well and what could be improved?</p>	<p>Below</p> <p>Above</p>
<p><b>Prior Skills and Knowledge</b></p> <ul style="list-style-type: none"> <li>● Electricity has not yet been covered for these children.</li> </ul>	<p><b>Vocabulary</b></p> <p>battery, battery pack, positive, negative, bulb, bulb holder, buzzer, circuit, circuit symbol, component, conductor, copper, current, design, design criteria, evaluation, function, insulator, LED, plan, pliers, prototype, series circuit, target audience, test, wire cutters</p>	
<p><b>Questions</b></p> <ul style="list-style-type: none"> <li>● How can an electrical component enhance the product?</li> <li>● How can the circuit be fixed into the product?</li> <li>● What could be causing the circuit to not work?</li> </ul>		

Year 3

Year 4

Year 5