



## Oakfield Primary School Design and Technology Medium Term Plan

EYFS						
<p>The development of children's artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.</p>						
Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Summer	<p><b>Construction</b></p> <p>To know different techniques to make and strengthen products such as drilling, screwing, gluing and nailing and begin to use these.</p> <p>To know how to use a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) and to demonstrate these.</p> <p><b>Mechanics</b></p> <p>To know that some devices operate with a battery.</p> <p>To begin to know when there is a fault in a battery operated device, such as water</p>	<p><b>Mechanics</b></p> <p>To know the word, diagnose.</p> <p>To know how to identify when a battery operated device has a low battery, water damage or battery terminal damage.</p> <p>To know how to model designs using software.</p> <p>To know how to create products using levers, wheels and winding mechanisms.</p>	<p><b>Construction</b></p> <p>To know how to cut materials accurately and safely by selecting appropriate tools.</p> <p>To know how to select appropriate joining techniques.</p> <p>To know how to choose suitable techniques to construct products or to repair items.</p>	<p><b>Construction</b></p> <p>To know how to measure and mark out to the nearest mm.</p> <p>To know how to apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</p> <p>To know how to strengthen materials using suitable techniques.</p>	<p><b>Mechanics</b></p> <p>To begin to know the names of components such as LED, resistors, transistors and chips and identify these.</p> <p>To begin to know how to create circuits using electronic kits that employ a number of components.</p> <p>To begin to know how to write code to control and monitor models or products.</p> <p>To know the terms rotary, motion and linear.</p> <p>To know how to convert rotary motion to linear using cams.</p> <p>To know how to create a design on Tinker cad.</p>	<p><b>Mechanics</b></p> <p>To know how to create circuits using electronic kits that employ a number of components (such as LED's, resistors, transistors and chips).</p> <p>To know how to write code to control and monitor models or products.</p> <p>To know how to use innovative combinations of electronics (or computing) and mechanics in product designs.</p>



	<p>damage, low battery, battery terminal damage.</p> <p>To know that software can be used to model designs and begin to use these.</p> <p>To know the names of some mechanisms such as, levers, wheels and winding mechanisms and to begin to work to creating these.</p>					
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