

# Design Technology Long Term Plan (Year B)

	<b>Autumn</b> Our Amazing Bodies	<b>Spring</b> Great Structures of the World	<b>Summer</b> Journeys
KS1	<b>Digging for Treasure</b>	<b>Crackers and Construction</b>	<b>Stories around the world</b>
<ul style="list-style-type: none"> <li>• Design products that have a clear purpose and an intended user.</li> <li>• Make products, refining the design as work progresses.</li> <li>• Use software to design.</li> </ul>	<p><b><i>What is dye?</i></b> <i>To master basic skills in textiles using heat transfer paint.</i></p> <ul style="list-style-type: none"> <li>• Shape textiles using templates.</li> <li>• Join textiles using running stitch.</li> <li>• Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</li> </ul>	<p><b><i>How to decorate a house?</i></b> <i>To master basic techniques with materials and electrics to make a room light up</i></p> <ul style="list-style-type: none"> <li>• Cut materials safely using tools provided.</li> <li>• Measure and mark out to the nearest centimetre.</li> <li>• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</li> <li>• Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen)</li> <li>• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</li> </ul>	<p><b><i>How to make a puppet?</i></b> <i>To design, make, evaluate and improve, To master the practical skills with textiles to make a puppet.</i></p> <ul style="list-style-type: none"> <li>• Shape textiles using templates.</li> <li>• Join textiles using running stitch.</li> <li>• Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</li> </ul>
LKS2	<b>Going for Goals</b>	<b>Rome wasn't built in a day</b>	<b>Invaders</b>
<ul style="list-style-type: none"> <li>• Design with purpose by identifying opportunities to design.</li> <li>• Make products by working efficiently</li> </ul>	<p><i>To design, make, evaluate and improve. To master the practical skills with <b>Food</b> to make an <b>energy bar</b>.</i></p> <ul style="list-style-type: none"> <li>• Prepare ingredients hygienically using appropriate utensils.</li> </ul>	<p><i>To design, make, evaluate and improve. To master the practical skills with <b>Material</b> to build an <b>Aqueduct</b>.</i></p> <ul style="list-style-type: none"> <li>• Cut materials accurately and safely by selecting appropriate tools.</li> <li>• Measure and mark out to the nearest millimetre.</li> </ul>	<p><i>To design, make, evaluate and improve. To master the practical skills with <b>Mechanism</b> to build a <b>flying dragon</b>.</i></p> <ul style="list-style-type: none"> <li>• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product</li> </ul>

<p>(such as by carefully selecting materials).</p> <ul style="list-style-type: none"> <li>• Refine work and techniques as work progresses, continually evaluating the product design.</li> <li>• Use software to design and represent product designs.</li> </ul>	<ul style="list-style-type: none"> <li>• Measure ingredients to the nearest gram accurately.</li> <li>• Follow a recipe.</li> <li>• Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).</li> </ul>	<ul style="list-style-type: none"> <li>• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</li> <li>• Select appropriate joining techniques</li> </ul>	<p>(such as levers, winding mechanisms, pulleys and gears).</p>
<p>UKS2</p> <p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p> <ul style="list-style-type: none"> <li>• Make products through stages of prototypes, making continual refinements.</li> <li>• Ensure products have a high-quality finish, using art skills where appropriate.</li> <li>• Use prototypes, cross-sectional diagrams</li> </ul>	<p><b>Blood, Boils and Bile</b></p> <p><i>To design, make, evaluate and improve. To master the practical skills with <b>Mechanism</b> to build a <b>Victorian inspired toy.</b></i></p> <ul style="list-style-type: none"> <li>• Convert rotary motion to linear using cams.</li> <li>• Use innovative combinations of electronics (or computing) and mechanics in product designs.</li> </ul>	<p><b>Ancient Egyptians</b></p> <p><i>To design, make, evaluate and improve. To master the practical skills with <b>Electrics</b> to build an <b>Electrical trap to catch a mummy</b></i></p> <ul style="list-style-type: none"> <li>• Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).</li> </ul>	<p><b>Transport and Trade</b></p> <p><i>To design, make, evaluate and improve. To master the practical skills with <b>Materials</b> to build a <b>bridge.</b></i></p> <ul style="list-style-type: none"> <li>• Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).</li> <li>• Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).</li> </ul>

and computer aided designs to represent designs.

