

## St Nicolas' Design and Technology Curriculum Map

Our Christian values are **respect, honesty, love and friendship, peace, thankfulness and courage**  
**Jesus said, 'I am the vine and you are the branches.'**

Design and Technology	Autumn		Spring		Summer	
<b>Reception</b>	build models using construction equipment	design and make rockets	design homes for hibernating animals	recycled plastic –junk modelling	use hand puppets	junk model lighthouse
	junk modelling	techniques for joining materials	design a fruit salad		model village	sandwiches
	cutting fruit and vegetables	shadow puppets			junk modelling, houses, bridges boats and transport	

As part of the Chestnut Class curriculum, children have ongoing opportunities to use materials, make and evaluate their creations and make adjustments as they learn.

<b>Y1</b>	<p><b>Moving pictures – explore how to bring picture books to life using a variety of moving mechanisms.</b></p> <ul style="list-style-type: none"> <li>Sliding mechanisms</li> <li>Wheel mechanisms</li> <li>Lever mechanisms</li> </ul>	<p><b>Sewing - make a puppet</b></p> <ul style="list-style-type: none"> <li>Look at different types of toy puppets</li> <li>Make a felt puppet using cutting and joining skills</li> <li>Thread a needle</li> <li>Use running stitch</li> </ul>	<p><b>Cooking and nutrition - seaside snacks</b></p> <ul style="list-style-type: none"> <li>use the basic principles of a healthy and varied diet to prepare dishes</li> <li>understand where food comes from.</li> </ul>
<b>Y2</b>	<p><b>3D form – Experiment with construct and join recycled, natural and man-made materials</b></p> <ul style="list-style-type: none"> <li>Design and make a fire engine</li> <li>Investigate wheels, axles and chassis</li> <li>Use a variety of tools and materials safely</li> <li>Identify when a structure is less stable than another</li> </ul>	<p><b>Construct – stable structures</b></p> <ul style="list-style-type: none"> <li>Make a toy garage</li> <li>Explore properties of different materials</li> <li>Draw, join and stick items with precision</li> <li>Follow a design plan to make functional products</li> </ul>	<p><b>Cooking and nutrition - smoothies</b></p> <ul style="list-style-type: none"> <li>Use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</li> <li>Use the bridge cutting technique</li> <li>Select ingredients appropriately</li> </ul>
<b>Y3</b>	<p><b>Cooking and nutrition – healthy eating – vegetable curry</b></p> <ul style="list-style-type: none"> <li>Learn different cooking techniques.</li> <li>Investigate, taste and describe new foods.</li> <li>Design a healthy recipe</li> <li>Plan a healthy recipe</li> <li>Make a healthy meal following a recipe.</li> <li>Understand and apply the principles of a healthy and varied diet</li> </ul>	<p><b>Design and make - magnetic games</b></p> <ul style="list-style-type: none"> <li>Discuss the aim of their project.</li> <li>Investigate a range of magnetic games</li> <li>Design a magnetic game</li> <li>Plan a magnetic game</li> <li>Make a magnetic game</li> <li>Evaluate the product</li> </ul>	<p><b>Mechanical systems - moving Monsters</b></p> <ul style="list-style-type: none"> <li>Join, fasten and connect parts.</li> <li>Select tools and equipment appropriately.</li> <li>Measure, mark out, assemble and join materials.</li> <li>Self-assess and evaluate a product.</li> </ul>

<p><b>Y4</b></p>	<p><b>Construct - wooden picture frames</b></p> <ul style="list-style-type: none"> <li>• Design a product fit for purpose based on specific criteria.</li> <li>• Select materials and equipment to be able to cut, join and finish accurately.</li> <li>• Apply understanding of how to strengthen, stiffen and reinforce a structure.</li> </ul>	<p><b>Understand and use electrical systems</b></p> <ul style="list-style-type: none"> <li>• Develop ideas through discussion and annotated sketches.</li> <li>• Choose components according to functional properties and aesthetic qualities.</li> <li>• Understand and use electrical systems (for example, series circuits incorporating switches, bulbs, buzzers and motors).</li> </ul>	<p><b>Cooking and nutrition – seasonal food</b></p> <ul style="list-style-type: none"> <li>• Understand and apply the principles of a healthy and varied diet</li> <li>• Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>
<p><b>Y5</b></p>	<p><b>Cooking and nutrition – Greek-style pitta breads</b></p> <ul style="list-style-type: none"> <li>• understand and apply the principles of a healthy and varied diet</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>	<p><b>Textiles - Tudor and Victorian sewing (Combining fabrics)</b></p> <ul style="list-style-type: none"> <li>• Examine what materials are used to make products seen in shops.</li> <li>• Attempt to join pieces of fabric in different ways including stitching.</li> <li>• Peer-assess the quality of stitching and the final product produced.</li> </ul>	<p><b>Carving – wood carving a logo using vector drawings</b></p> <ul style="list-style-type: none"> <li>• Use traditional carving techniques to create shapes.</li> <li>• Follow a plan, with areas marked out to cut away and size and shape of carvings give in detail.</li> <li>• Make use of computer technology in the form of a vector drawing to plan final carving.</li> </ul>
<p><b>Y6</b></p>	<p><b>Sewing - Device cover</b></p> <ul style="list-style-type: none"> <li>• To draw a design and find fabrics with an awareness of the potential of the uses of different materials.</li> <li>• To use a range of stitching techniques to sew, decorate and fasten a device cover</li> </ul>	<p><b>3D structures – Bridges</b></p> <ul style="list-style-type: none"> <li>• To research and investigate different types of structures</li> <li>• Create a scaled model of a bridge using geometric shapes.</li> <li>• Evaluate the structure</li> </ul>	<p><b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>• understand and apply the principles of a healthy and varied diet</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>