



## Design and Technology Disciplinary Knowledge Progression



Year Group	Marking out and cutting	Fixing and joining	Mechanisms and control	Finishing, including food hygiene
1	<ul style="list-style-type: none"> <li>Safe use of simple tools to punch to cut and make holes materials</li> </ul>	<ul style="list-style-type: none"> <li>Joining 2d and 3d materials- gluing and sticking</li> <li>Understanding of structures and how these can be made stronger and more stable.</li> </ul>	<ul style="list-style-type: none"> <li>Understanding simple mechanisms that allow movement – sliding mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>Know about and apply basic finishing techniques e.g. collage, painting, colouring to match a design brief</li> <li>Basic food handling, hygienic practices and personal hygiene, including how to control risks.</li> <li>Safe use of a variety of tools and equipment to peel, cut, grate, mix and mould food.</li> <li>The nutritional value of food stuffs in a balanced diet.</li> </ul>
2	<ul style="list-style-type: none"> <li>Use templates and patterns on fabric, pinning, tracing around outline of component parts</li> <li>Cutting fabric with precision</li> <li>Apply basic measuring skills.</li> <li>Use simple models to plan out use of space or a structure might be marked out in order to be made.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a basic sewing technique- starting, ending, running stitch to join fabric</li> <li>Develop a range of techniques to join fabrics- stitching</li> </ul>		<ul style="list-style-type: none"> <li>Know about and apply different finishing techniques.</li> <li>Know the nutritional value of food stuffs in a balanced diet.</li> <li>Safely use a variety of tools and equipment to peel, cut, grate, mix and mould food.</li> </ul>
3	<ul style="list-style-type: none"> <li>Work safely with a range of hand tools</li> </ul>	<ul style="list-style-type: none"> <li>Extend understanding of ways of fixing and joining</li> </ul>	<ul style="list-style-type: none"> <li>Create and write a program to control and/or</li> </ul>	<ul style="list-style-type: none"> <li>Know about and apply different finishing</li> </ul>

		components and selecting most appropriate for a given task	monitor that will initiate an algorithm.	<p>techniques- collage, paint, cut out shapes, decoupage, varnishing for durability.</p> <ul style="list-style-type: none"> <li>• Understanding of food preparation techniques (tearing, cutting, slicing, grating) ways to combine food for a particular purpose.</li> <li>• Combining foods based on taste, appearance, and texture.</li> <li>• Understanding of different food groups within a healthy and balanced diet.</li> </ul>
4	<ul style="list-style-type: none"> <li>• Joining and reinforcing fabrics</li> <li>• Demonstrating fabric can be joined in a number of different ways – sewing using a range of stitches.</li> </ul>	<ul style="list-style-type: none"> <li>• Relate a mechanism to its purpose and select for a desired type of movement</li> </ul>	<ul style="list-style-type: none"> <li>• Applying knowledge about electrical circuits in designing and making product.</li> <li>• Understanding linkage mechanisms and the type of movement they produce</li> </ul>	<ul style="list-style-type: none"> <li>• Using a widening range of decorative techniques such as dyeing and embroidery, embellishing, applique, fabric paints, fastenings ( buttons, buckles, press studs, hooks and eyes, Velcro, safety pins, zip, ties</li> <li>•</li> </ul>
5	<ul style="list-style-type: none"> <li>• Measuring accurately, marking out, cutting.</li> <li>• Using a range of sharp tools safely.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how different materials can be reinforced for different purposes.</li> <li>• Assembling materials in temporary ways as a trial prior to finalizing design choices.</li> <li>• Cutting and joining component parts to a main structure.</li> </ul>		<ul style="list-style-type: none"> <li>• Accurate measuring and weighing skills, understanding the properties and quantities of ingredients will affect the final products.</li> <li>• Increased awareness of food safety and hygiene, including use of ovens.</li> <li>• Exploring the functions and properties of ingredients.</li> </ul>
6	<ul style="list-style-type: none"> <li>• Using a range of tool and techniques for marking out, measuring and</li> </ul>	<ul style="list-style-type: none"> <li>• Assemble components to make working models; make accurate patterns and template designs</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding how products can be driven by electricity</li> </ul>	<ul style="list-style-type: none"> <li>• Distinguish between functional and decorative products.</li> <li>• Develop a structure with</li> </ul>

	cutting a range of materials.	<ul style="list-style-type: none"><li>• Using a variety of temporary and permanent joining techniques, including framework, materials and textiles</li></ul>	<ul style="list-style-type: none"><li>• Understanding how different sorts of switches can be used to control electrical current</li></ul>	finishing techniques; use a range of tools to measure and cut accurately.
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