

Design and Technology Progression

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To master practical skills:					
<p>Food:</p> <p>Cut ingredients safely and hygienically. Assemble or cook ingredients.</p>	<p>Food:</p> <p>Cut, peel or grate ingredients safely and hygienically. Measure or weigh using measuring cups or electronic scales.</p>	<p>Food:</p> <p>Prepare ingredients hygienically using appropriate utensils.</p> <ul style="list-style-type: none"> • Measure accurately. • Follow a recipe. • Assemble or cook ingredients 	<p>Food:</p> <p>Prepare ingredients hygienically using appropriate utensils.</p> <ul style="list-style-type: none"> • Measure ingredients to the nearest gram. • Assemble and cook ingredients (controlling the temperature of the oven or hob, if cooking). 	<p>Food:</p> <ul style="list-style-type: none"> • Understand the importance of correct storage and handling of ingredients (knowledge of micro-organisms). • Demonstrate a range of baking and cooking techniques. 	<p>Food:</p> <ul style="list-style-type: none"> • Measure accurately and calculate ratios of ingredients to scale up or down from recipe. • Create and refine recipes, including ingredients, methods, cooking times and temperatures.
<p>Materials:</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). 	<p>Materials:</p> <ul style="list-style-type: none"> • Measure and mark out to nearest cm. • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). 	<p>Materials:</p> <ul style="list-style-type: none"> • Cut materials accurately and safely by selecting appropriate tools. • Select appropriate joining techniques. 	<p>Materials:</p> <ul style="list-style-type: none"> • Measure and mark out to the nearest mm. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). 	<p>Materials:</p> <ul style="list-style-type: none"> • 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). 	<p>Materials:</p> <ul style="list-style-type: none"> • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (e.g. the nature of fabric may require sharper scissors than would be used to cut paper).
<p>Textiles:</p> <ul style="list-style-type: none"> • Shape textiles using templates. • Colour and decorate textiles 	<p>Textiles:</p> <ul style="list-style-type: none"> • Join textiles using running stitch. • Colour and decorate textiles using a number of techniques 	<p>Textiles:</p> <ul style="list-style-type: none"> • Understand the need for a seam allowance. • Join textiles with appropriate stitching. 	<p>Textiles:</p> <ul style="list-style-type: none"> • Select the most appropriate techniques to decorate textiles 	<p>Textiles:</p> <ul style="list-style-type: none"> • Create objects (such as a cushion) that employ a seam allowance. • Join textiles with a combination of stitching techniques (e.g. back stitch for seams and 	<p>Textiles:</p> <ul style="list-style-type: none"> • Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

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				running stitch to attach decoration).	
Electricals and electronics: Recognise if a battery operated device works or not.	Electricals and electronics: • Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	Electricals and electronics: Create series circuits.	Electricals and electronics: Create parallel circuits.	Electricals and electronics: • Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).	Electricals and electronics: • Create circuits using electronics kits that employ a number of components with increasing confidence.
				Computing: Model designs using software	Computing: Model designs using software
Construction: • Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.		Construction: • Choose suitable techniques to construct products or to repair items.	Construction: • Strengthen materials using suitable techniques.	Construction: • Develop a range of practical skills to create products (e.g cutting, drilling and screwing, nailing, gluing, filling and sanding).	Construction: • Develop a range of practical skills to create products.
Mechanics: • Create products using levers and wheels.	Mechanics: • Create products using winding mechanisms.	Mechanics: • Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).	Mechanics: • Use scientific knowledge to choose appropriate mechanisms for a product.	Mechanics: • Convert rotary motion to linear using cams.	Mechanics: • Use innovative combinations of electronics (or computing) and mechanics in product designs