



Design and Technology Curriculum – Progression of Skills

To master practical skills							
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To master practical skills	Food	<ul style="list-style-type: none"> Cut, peel or grate ingredients safely and hygienically. Assemble ingredients 	<ul style="list-style-type: none"> Cook ingredients. Measure or weigh using measuring cups or electronic scales. 	<ul style="list-style-type: none"> Prepare ingredients hygienically using appropriate utensils. Follow a recipe. 	<ul style="list-style-type: none"> Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). Measure ingredients to the nearest gram accurately. 	<ul style="list-style-type: none"> Demonstrate a range of baking and cooking techniques. Create and refine recipes, including ingredients, methods, cooking times and temperatures. 	<ul style="list-style-type: none"> Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.
	Materials	<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). 	<ul style="list-style-type: none"> Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). Measure and mark out to the nearest centimetre. 	<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). 	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Cut materials accurately and safely by selecting appropriate tools. Measure and mark out to the nearest millimetre. 	<ul style="list-style-type: none"> Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Select appropriate joining techniques.
	Textiles	<ul style="list-style-type: none"> Shape textiles using templates. Decorate textiles using a number of techniques (such as adding sequins or printing). 	<ul style="list-style-type: none"> Colour textiles using techniques (such as dyeing). Join textiles using running stitch. 	<ul style="list-style-type: none"> Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). 	<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). Create objects (such as a cushion) that employ a seam allowance. 	<ul style="list-style-type: none"> Understand the need for a seam allowance. Join textiles with appropriate stitching. 	<ul style="list-style-type: none"> Select the most appropriate techniques to decorate textiles.
	Electricals and electronics		<ul style="list-style-type: none"> Diagnose faults in battery operated devices (such as a low battery, water damage or battery) 		<ul style="list-style-type: none"> Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and 		<ul style="list-style-type: none"> Create series and parallel circuits



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	<p>Construction</p> <ul style="list-style-type: none"> Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. 		<ul style="list-style-type: none"> Choose suitable techniques to construct products or to repair items. Strengthen materials using suitable techniques 		<ul style="list-style-type: none"> Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding). 		
	<p>Mechanics</p> <ul style="list-style-type: none"> Create products using wheels 	<ul style="list-style-type: none"> Create products using levers and winding mechanisms. 	<ul style="list-style-type: none"> Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers and pulleys). 	<ul style="list-style-type: none"> Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as winding mechanisms and gears). 	<ul style="list-style-type: none"> Convert rotary motion to linear using cams. 	<ul style="list-style-type: none"> Use innovative combinations of electronics (or computing) and mechanics in products designs. 	
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To design, make, evaluate and improve	<ul style="list-style-type: none"> Design products that have a clear purpose and an intended user. Make products, that I have designed 	<ul style="list-style-type: none"> Use software to design. Make products, refining the design as work progresses. 	<ul style="list-style-type: none"> Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). 	<ul style="list-style-type: none"> Refine work and techniques as work progresses, continually evaluating the product design. Use software to design and represent product designs. 	<ul style="list-style-type: none"> Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). Make products through stages of prototypes, making continual refinements. 	<ul style="list-style-type: none"> Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. Ensure products have a high quality finish, using art skills where appropriate. 	
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To take inspiration from design throughout history	<ul style="list-style-type: none"> Explore objects and designs to identify likes and dislikes of the designs. 	<ul style="list-style-type: none"> Explore how products have been created. Suggest improvements to existing designs. 	<ul style="list-style-type: none"> Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. Improve upon existing designs, giving reasons for choices. 	<ul style="list-style-type: none"> Disassemble products to understand how they work. 	<ul style="list-style-type: none"> Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. Create innovative designs that improve upon existing products. 	<ul style="list-style-type: none"> Evaluate the design of products so as to suggest improvements to the user experience. 	