

End Points in Design & Technology

Concepts	Early Years	Key Stage 1 (Years 1 & 2)	Lower Key Stage 2 (Years 3 & 4)	Upper Key Stage 2 (Years 5 & 6)
Master practical skills: Food	<ul style="list-style-type: none"> Use simple tools to cut food safely Wash hands independently Measure using spoons, cups and balance scales Begin to assemble and cook simple recipes with adult support 	<ul style="list-style-type: none"> Cut, peel or grate ingredients safely and hygienically. Measure or weigh using measuring cups or electronic scales. Assemble or cook ingredients 	<ul style="list-style-type: none"> Prepare ingredients hygienically using appropriate utensils. Measure ingredients to the nearest gram accurately. Follow a recipe. Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). 	<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. Demonstrate a range of baking and cooking techniques. Create and refine recipes, including ingredients, methods, cooking times and temperatures.
Materials	Hold simple tools effectively in order to cut materials	Cut materials safely using tools provided.	Cut materials accurately and safely by selecting appropriate tools.	Cut materials with precision and refine the finish with appropriate tools (such

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	<p>Begin to use a ruler to draw a straight line</p> <p>Tear, cut and fold different materials in simple ways</p> <p>Select and use a range of joining techniques, such as glue, tape, staples, split pins and threading</p>	<ul style="list-style-type: none"> • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). 	<ul style="list-style-type: none"> • Measure and mark out to the nearest millimetre. • 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. 	<p>as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).</p> <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).
Textiles	<p>Use simple techniques such as fabric pens to affect changes to materials</p> <p>Sew with plastic needles using an in and out technique</p>	<ul style="list-style-type: none"> • Shape textiles using templates. • Join textiles using running stitch. • Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing). 	<ul style="list-style-type: none"> • Understand the need for a seam allowance. • Join textiles with appropriate stitching. • Select the most appropriate techniques to decorate textiles. 	<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 (such as back stitch for seams and running stitch to attach decoration).

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				<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).
Electricals and electronics	<ul style="list-style-type: none"> • State when an electrical device isn't working and begin to explain why e.g. new batteries or needs charging 	<ul style="list-style-type: none"> • Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage) 	<ul style="list-style-type: none"> • Create series and parallel circuits 	<ul style="list-style-type: none"> • Create circuits using electronic kits that employ a number of components (such as LEDs, resistors, transistors and chips)
Construction	<ul style="list-style-type: none"> • Select and use real and play tools to join materials together • Construct with a purpose in mind using a 	Use materials to practice drilling, screwing, gluing and nailing materials to make and strengthen products	<p>Choose suitable techniques to construct products or to repair items.</p> <ul style="list-style-type: none"> • Strengthen materials using suitable techniques. 	Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding)

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	variety of resources			
Mechanics	<ul style="list-style-type: none"> • Create products using flaps and moving parts (split pins) 	<ul style="list-style-type: none"> • Create products using levers, wheels and winding mechanisms. 	Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears)	<ul style="list-style-type: none"> • Convert rotary motion to linear using cams. • Use innovative combinations of electronics (or computing) and mechanics in product designs.
Computing	<ul style="list-style-type: none"> • Use simple software to move models 	Model designs using software	Control and monitor models using software designed for this purpose	Write code to control and monitor models or products
Design, make, evaluate and improve	<ul style="list-style-type: none"> • Manipulate materials with a purpose in mind • Make a product and use it independently • Begin to adapt and develop ideas 	<ul style="list-style-type: none"> • Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design. 	<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). • Refine work and techniques as work progresses, 	<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. • Ensure products have a high quality

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			<p>continually evaluating the product design.</p> <ul style="list-style-type: none"> • Use software to design and represent product designs. 	<p>finish, using art skills where appropriate.</p> <ul style="list-style-type: none"> • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.
<p>Take inspiration from design throughout history</p>	<ul style="list-style-type: none"> • State likes and dislikes • With support, verbalise how to make products or designs better 	<ul style="list-style-type: none"> • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created. 	<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. • 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. • Evaluate the design of products so as to suggest improvements to the user experience.