

Design and Technology skills:

	End of Year 2	End of Year 4	End of Year 6
Design	<p>I can design products that have a clear purpose and an intended user</p> <p>I can use software to design.</p> <p>I can compare objects and designs to identify likes and dislikes of the designs.</p>	<p>I can design with purpose by identifying opportunities to design.</p> <p>I can use software to design and represent product designs.</p> <p>I can identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.</p>	<p>I can design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p> <p>I can use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p> <p>I can combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.</p>
Make	<p>I can make products, refining the design as work progresses.</p>	<p>I can make products by working efficiently (such as by carefully selecting materials).</p> <p>I can refine work and techniques as work progresses, continually evaluating the product design.</p>	<p>I can make products through stages of prototypes, making continual refinements.</p> <p>I can ensure products have a high quality finish, using art skills where appropriate.</p>
Evaluate	<p>I can suggest improvements to existing designs.</p> <p>I can explore how products have been created.</p>	<p>I can improve upon existing designs, giving reasons for choices.</p> <p>I can disassemble products to understand how they work</p>	<p>I can create innovative designs that improve upon existing products.</p> <p>I can evaluate the design of products so as to suggest improvements to the user experience.</p>

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To master practical skills	Food	<p>I can cut, peel or grate ingredients safely and hygienically.</p> <p>I can measure or weigh using measuring cups or electronic scales.</p> <p>I can assemble or cook ingredients.</p>	<p>I can prepare ingredients hygienically using appropriate utensils.</p> <p>I can measure ingredients to the nearest gram accurately.</p> <p>I can follow a recipe.</p> <p>I can assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).</p>	<p>I can understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).</p> <p>I can measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p> <p>I can demonstrate a range of baking and cooking techniques.</p> <p>I can create and refine recipes, including ingredients, methods, cooking times and temperatures.</p>
	Materials	<p>I can cut materials safely using tools provided.</p> <p>I can measure and mark out to the nearest centimetre.</p> <p>I can demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>I can demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</p>	<p>I can cut materials accurately and safely by selecting appropriate tools.</p> <p>I can measure and mark out to the nearest millimetre.</p> <p>I can apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</p> <p>I can select appropriate joining techniques.</p>	<p>I can 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> <p>I can use my 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).</p>

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	Textiles	<p>I can shape textiles using templates.</p> <p>I can join textiles using a basic stitch or glue.</p> <p>I can colour and decorate textiles.</p>	<p>I can understand and create a seam allowance.</p> <p>I can join textiles with appropriate stitching.</p> <p>I can select the most appropriate techniques to decorate textiles.</p>	<p>I can create objects (such as a cushion) that use a seam allowance.</p> <p>I can join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).</p> <p>I can 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).</p>
	Electricals and electronics	I can create simple series circuits.	I can create series and parallel circuits.	<p>I can create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).</p> <p>I can diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</p>
	Computing	I can model designs using software.	<ul style="list-style-type: none"> I can control and monitor models using software designed for this purpose. 	I can write code to control and monitor models or products.
	Construction	I can join materials to make and strengthen products.	<p>I can choose suitable techniques to construct products or to repair items.</p> <p>I can strengthen materials using suitable techniques.</p>	I can use a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).

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	Mechanics	I can create products using levers, wheels and winding mechanisms.	I can use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).	I can convert rotary motion to linear using cams. I can use innovative combinations of electronics (or computing) and mechanics in product designs.
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