Design Technology- Skill Progression

Key Skills	Reception	Years 1 and 2	Years 3 and 4	Years 5 and 6
Food	• Cut, peel or grate ingredients safely and hygienically with step-by-step instructions. • With support, measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients with support.	• Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients.	• 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)	• 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	• Demonstrate basic cutting and shaping techniques (such as tearing and cutting). • Use glue and tape to join materials together.	• Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre.	• Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts	• 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). • Show an understanding of the qualities of materials to choose

		• 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)	within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques.	appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).
Textiles	• Join textiles using glue. • Decorate textiles by adding shapes, sequins etc.	• 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).	• Understand the need for a seam allowance. • Join textiles with appropriate stitching. • Select the most appropriate techniques to decorate textiles.	• 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). • 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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Electricals and electronics	N/A	• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	• Create series and parallel circuits	• Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).
Computing	N/A	• Model designs using software.	• Control and monitor models using software designed for this purpose.	• Write code to control and monitor models or products.
Construction	• Use materials to practise, gluing and nailing materials.	• Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.	• Choose suitable techniques to construct products or to repair items. • 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)
Mechanics	• With guidance, create products with wheels and winding mechanisms.	• Create products using levers, wheels and winding mechanisms.	• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product	• Convert rotary motion to linear using cams.

			(such as levers, winding mechanisms, pulleys and gears).	• Use innovative combinations of electronics (or computing) and mechanics in product designs
Design, make, evaluate and improve	• Make products, commenting on what works well.	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design.	• 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, continually evaluating the product design. • Use software to design and represent product designs.	• 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 finish, using art skills where appropriate. • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.