Curriculum Map – Key Skills Overview Design Technology

	Year 1 and 2 progress statements		Year 3 and 4 progress statements		Year 5 and 6 progress statements
To master practical skills Food	• Cut, peel or grate ingredients safely and hygienically	To master practical skills Food	• Prepare ingredients hygienically using appropriate utensils	To master practical skills Food	• Understand the importance of context storage and handling of ingredients (using knowledge of micro –organisms)
	• Measure or weigh using measuring cups or electronic scales		• Measure ingredients to the nearest gram accurately		• Measure accurately and calculate ratios of ingredients to scale up or down from a recipe
	• Assemble or cook ingredients		• Follow a recipe		• Demonstrate a range of baking and cooking techniques
	•		• Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking)		• Create and refine recipes, including ingredients, methods, cooking times and temperatures
Materials	• Cut materials safely using tools provided	**Materials**	• Cut materials accurately and safely by selecting appropriate tools	**Materials**	• 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 a shape)
	• Measure and mark out to the nearest centimetre		• Measure and mark out to the nearest millimetre		• 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)
	• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding		• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs)		•

	and curling)				
	● Demonstrate a range of joining techniques (such a gluing, hinges or combining materials to strengthen)		● Select appropriate joining techniques		●
Textiles	● Shape textiles using templates	Textiles	● Understand the need for a seam allowance	Textiles	● Create objects (such as a cushion) that employ a seam allowance
	● Join textiles using running stitch		● Join textiles with appropriate stitching		● Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration)
	● Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing)		● Select the most appropriate techniques to decorate textiles		● Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as soft decoration for comfort on a cushion)
	●		●		●
Electricals and electronics	● Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage)	**Electricals and electronics**	● Create series and parallel circuits	**Electricals and electronics**	● Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips)
Construction	● Use materials to practice drilling, screwing, gluing and nailing materials to make and strengthen products	**Construction**	● Choose suitable techniques to construct products or to repair items	**Construction**	● Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding)
	●		● Strengthen materials using suitable techniques		●
Mechanics	● Create products using levers, wheels and	**Mechanics**	● Use scientific knowledge of the transference of forces to choose	**Mechanics**	● Convert rotary motion to linear using cams

	winding mechanisms		appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears)		
	●		●		● Use innovative combinations of electronics (or computing) and mechanics in product design
Computing	● Model designs using software	**Computing**	● Control and monitor models using software designed for this purpose	**Computing**	● Write code to control and monitor models or products
To design, make, evaluate and improve	● Design products that have a clear purpose and an intended user	**To design, make, evaluate and improve**	● Design with purpose by identifying opportunities to design	**To design, make, evaluate and improve**	● Design with the user in mind, motivated by the service a product will offer (rather than simply for profit)
	● Make products, refining the design as work progresses		● Make products by working efficiently (such as by carefully selecting materials)		● Make products through stages of prototypes, making continual refinements
	● Use software to design		● Refine work and techniques as work progresses continually evaluating the product design		● Ensure products have a high quality finish, using art skills where appropriate
	●		● Use software to design and represent product designs		● Use prototypes, cross-sectional diagrams and computer aided designs to represent designs
To take inspiration from design throughout history	● Explore objects and designs to identify likes and dislikes of the designs	**To take inspiration from design throughout history**	● Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs	**To take inspiration from design throughout history**	● Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices
	● Suggests improvements to existing designs		● Improve upon existing designs, giving reasons for choices		● Create innovative designs that improve upon existing products
	● Explore how products have been created		● Disassemble products to understand how they work		● Evaluate the design of products so as to suggest improvements to the user experience