



	FS1 and FS2	Y1	Y2	Y3/4	Y5/6
<b>To master practical skills - Food</b>	They safely use a variety of tools	Measure or weigh using measuring cups or electronic scales.  Assemble or cook ingredients.	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.  Follow a recipe. Measure ingredients to the nearest gram accurately.  Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).	Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.  Demonstrate a range of baking and cooking techniques.  Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).  Create and refine recipes, including ingredients, methods, cooking times and temperatures.
<b>To master practical skills - Materials</b>	They safely use a variety of tools  Realises tools can be used for a purpose. Eg glue, paper clip, split pins, Sellotape  Manipulates materials to achieve the planned effect  Selects the appropriate resources – Plan > Do> Review	They safely use a variety of tools  Realises tools can be used for a purpose. Eg glue, paper clip, split pins, Sellotape  Manipulates materials to achieve the planned effect  Selects the appropriate resources – Plan > Do >Review  Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).	Cut materials safely using tools provided.  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).	Cut materials accurately and safely by selecting appropriate tools.  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.  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).  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).
<b>To master practical skills - Textiles</b>			Shape textiles using templates.	Understand the need for a seam allowance.  Join textiles with appropriate stitching.	Create objects (such as a cushion) that employ a seam allowance.  Join textiles with a combination of stitching techniques (such as back

# Progression in Design Technology at St Mary's Academy



			Join textiles using running stitch.  Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).	Select the most appropriate techniques to decorate textiles.	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).
<b>To master practical skills – Electricals and electronics</b>			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).
<b>To master practical skills - Computing</b>			Model designs using software.	Control and monitor models using software designed for this purpose. Write code to control and monitor models or products.	Apply their understanding of computing to programme, monitor and control their products.
<b>To master practical skills - Construction</b>	Uses simple tools competently and appropriately  Selects tools and techniques to shape, assemble and join materials they are using.	Uses simple tools competently and appropriately  Selects tools and techniques to shape, assemble and join materials they are using.	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).
<b>To master practical skills - Mechanics</b>			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).	Convert rotary motion to linear using cams. Use innovative combinations of electronics (or computing) and mechanics in product designs.
<b>To design, make, evaluate and improve</b>	Selects the appropriate resources – Plan > Do > Review  Provide opportunities for children to participate in meaningful speaking and listening activities. For example, children can take models that they have made to show children in another group or class and explain how they were made.		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	Make products through stages of prototypes, making continual refinements.  Ensure products have a high-quality finish, using art skills where appropriate.



				<p>will offer (rather than simply for profit).</p> <p>Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p>	
<p><b>To take inspiration from design throughout history</b></p>			<p>Explore objects and designs to identify likes and dislikes of the designs.</p> <p>Suggest improvements to existing designs.</p> <p>Explore how products have been created.</p>	<p>Improve upon existing designs, giving reasons for choices.</p> <p>Disassemble products to understand how they work.</p> <p>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>Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.</p> <p>Evaluate the design of products so as to suggest improvements to the user experience.</p>