



	<b>Textiles</b>	<b>Mechanical</b>	<b>Cooking and nutrition</b>
<b>Year 3</b>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Understand how to securely join two pieces of fabric together.</li> <li>Understand the need for patterns and seam allowances.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>With growing confidence, use <b>research</b> and <b>develop</b> a <b>design</b> that is <b>fit for purpose aimed at particular individuals or a group</b>.</li> <li>Confidently and independently order the main stages of making a product.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Develop vocabulary for tools, materials and their properties.</li> <li>Understand seam allowance.</li> <li>Join fabrics using running stitch, over sewing, blanket stitch.</li> <li>Use a prototype to make pattern.</li> <li>Explore strengthening and stiffening of fabrics.</li> <li>Explore fastenings and recreate some.</li> <li>Sew on buttons and make loops.</li> <li>Use appropriate decoration techniques.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Begin to <b>investigate</b> and <b>analyse a range</b> of existing products</li> <li>Learn about key events and individuals who have helped shape the world (inventors/designers/engineers/ chefs/manufacturers of ground-breaking products)</li> </ul>	<p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>Understand and use lever and linkage mechanisms.</li> <li>Distinguish between fixed and loose pivots.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Explore, <b>generate, develop</b> and <b>communicate</b> their ideas through discussion and <b>annotated sketches</b> when designing.</li> <li>Confidently and independently order the main stages of making a product.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Order the main stages of making.</li> <li>Select from and use appropriate tools with some accuracy to cut, shape and join paper and card.</li> <li>Select from and use finishing techniques suitable for the product they are creating.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Start to use design criteria to evaluate finished product against own designs</li> <li>Say what I would change to make my design better</li> <li>Record their evaluation through a written supportive framework.</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Start to know <b>where and how</b> food is <b>grown reared, caught and processed</b> in the UK and Europe.</li> <li>Start to understand that a <b>healthy diet</b> is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'.</li> <li>Begin to know that activity, healthy food and drink are needed for a healthy body.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>With growing confidence, use <b>research</b> and <b>develop</b> a <b>design</b> (including appearance, taste, texture and aroma for an appealing product) that is <b>fit for purpose aimed at particular individuals or a group</b>.</li> <li>Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Plan the main stages of a recipe, listing ingredients, utensils and equipment.</li> <li>Begin to understand how to use a <b>range of techniques</b> such as mixing, peeling, chopping (cross chop and large dice) and grating.</li> <li>Understand how to prepare and cook a <b>variety of predominantly savoury dishes</b> safely.</li> <li>Know how to use appropriate equipment and utensils to prepare and combine food.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Begin to <b>investigate</b> and <b>analyse a range</b> of existing products</li> <li>Say what I would change to make my design better</li> </ul>



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<b>Year 4</b>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Apply their understanding of computing to program and control their products (Micro:bit)</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>With confidence, use <b>research</b> and <b>develop design criteria</b> that are innovative and <b>fit for purpose aimed at particular individuals or a group</b>.</li> <li>Investigate and analyse a range of existing battery-powered products.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Order the main stages of making.</li> <li>Select from and use tools and equipment to cut, shape, join and finish with some accuracy.</li> <li>Use electrical systems such as switches, bulbs and buzzers.</li> <li>Select from and use materials and components according to their functional properties and aesthetic qualities.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Begin to explain how to improve their design and use criteria to evaluate products</li> <li>Know about key events and individuals who have helped shape the world (inventors/designers/engineers/ chefs/manufacturers of ground-breaking products)</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Understand and use pneumatic mechanisms.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Confidently <b>generate, develop and communicate</b> their ideas through <b>exploded diagrams and annotated sketches</b>.</li> <li>Develop the order of the making of the product and which materials and equipment to be used.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Order the main stages of making.</li> <li>Begin to understand that mechanical systems such as levers or pneumatic systems create movement.</li> <li>Select from and use finishing techniques suitable for the product they are creating.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Record their evaluation by responding to a questionnaire.</li> <li>Investigate and analyse books, videos and products with pneumatic mechanisms.</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Start to understand where and how food is grown reared, caught and processed in the UK and Europe.</li> <li>Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'.</li> <li>Know that activity, healthy food and drink are needed for a healthy body</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Evaluate others products and identify criteria that can be used for their own designs</li> <li>Develop the order of the making of the product and which materials and equipment to be used.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>Know how to use a range of techniques such as mixing, peeling, chopping (Rock chop and Medium Dice) and grating.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>To investigate and analyse, with some confidence, a range of existing products</li> </ul>



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<b>Year 5</b>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Know that fabrics can be strengthened, stiffened and reinforced where appropriate.</li> <li>Know that a 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Use <b>annotated sketches to communicate</b> their ideas for an <b>innovative, functional, appealing product</b>.</li> <li>Draw up a specification for their design.</li> <li>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if first attempts fail.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>With confidence, pin, sew and stitch materials together to create a product.</li> <li>Decorate textiles appropriately (often before joining components).</li> <li>Pin and tack fabric pieces together.</li> <li>Join fabrics using over sewing, back stitch, blanket stitch</li> <li>Combine fabrics to create more useful properties.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Using an understanding of the product, investigate and analyse, with some confidence, a range of existing products</li> <li>Test and begin to evaluate finished products against their own specification, considering purpose and appearance.</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Know how mechanical systems such as cams or pulleys or gears create movement.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Use <b>cross-sectional or exploded diagrams to communicate</b> their ideas for an <b>innovative, functional, appealing product</b>.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Begin to measure, mark out, cut and join more accurately to ensure a good-quality finish to the product.</li> <li>Select, from a wider range, the appropriate materials, tools and techniques, demonstrating skills in using different tools and equipment safely and accurately with growing confidence.</li> <li>Use finishing techniques to strengthen and improve the appearance of their product with growing confidence using computing to monitor products.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Record their evaluations through a paragraph indicating the improvements and the successes.</li> <li>Talk about key events and individuals who have helped shape the world (inventors/designers/engineers/ chefs/manufacturers of ground-breaking products)</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Understand <b>where and how</b> food is <b>grown, reared, caught and processed</b> in the wider world.</li> <li>Begin to understand that <b>seasons</b> may affect the food available (seasonality).</li> <li>Understand how food is <b>processed</b> into ingredients that can be eaten or used in cooking.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources</li> <li>Confidently use results of <b>research</b>, information sources, including ICT when <b>developing design</b> ideas.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Know how to prepare and cook a variety of <b>predominantly savoury dishes</b> safely and hygienically including, where appropriate, the use of a heat source.</li> <li>Understand how to use a wide range of techniques such as mixing, peeling, chopping (Batonnet and thin slices), grating, slicing, spreading, kneading and baking.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Consider the views of others to improve their products</li> <li>Compare the final product to the original design specification.</li> </ul>



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<b>Year 6</b>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Understand and use electrical systems in their products.</li> <li>Apply their understanding of computing to program, monitor and control their products.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Draw up a detailed specification for their design through annotated sketches and pictorial representations of circuit diagrams</li> <li>Have a clear idea of what has to be done, identifying areas within the production that present particular difficulties.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Use computing to <b>program, control</b> and <b>monitor</b> products.</li> <li>Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components.</li> <li>Understand more <b>complex electrical circuits</b> including <b>switches, buzzers, bulbs, and motors</b> to create functional products</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Thoroughly evaluate <b>existing products</b> considering: how well they've been made, the use of materials, whether the product works, how they've been made, whether they are fit for purpose</li> <li>Discuss key events and individuals who have helped shape the world (inventors/designers/engineers/ chefs/manufacturers of ground-breaking products)</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Understand how to strengthen, stiffen and reinforce 3-D frameworks.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Communicate their ideas through <b>detailed labelled diagrams</b> including <b>annotated sketches, cross-sectional</b> and <b>exploded diagrams, prototypes, pattern pieces</b> where appropriate.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Understand how mechanical systems such as <b>cams, pulleys, linkages, levers and gears</b> create movement.</li> <li>Construct products using permanent <b>joining</b> techniques and know how to <b>reinforce</b> and <b>strengthen</b> more <b>complex structures</b>.</li> <li>Aim to make and to achieve a quality product, but can make modifications as they go along.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Evaluate ideas and finished products against their own specification, stating if it's fit for purpose</li> <li>Explain what would improve the final product and the effect different resources may have had</li> </ul>	<p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>Understand <b>where and how</b> food is <b>grown reared, caught and processed</b> in the wider world.</li> <li>Understand that <b>seasons</b> may affect the food available (seasonality).</li> <li>Understand how food is <b>processed</b> into ingredients that can be eaten or used in cooking.</li> <li>Be able to explain that different food and drink contain different substances – nutrients, water and fibre – that, combined with regular exercise are needed for health. Know what proportion of your meal these should be.</li> </ul> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>Write a step-by-step recipe, including a list of ingredients, equipment and utensils</li> <li>Confidently select appropriate tools, materials, components and techniques and use them safely and accurately</li> <li>Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>Understand how to use a wide range of techniques such as mixing, peeling, chopping (Julienne cut and Small Dice), grating, slicing, spreading, kneading and baking.</li> <li>Make, decorate and present the food product appropriately for the intended user and purpose.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Consider the views of others to improve their products</li> <li>Understand how key chefs have influenced eating habits to promote varied and healthy diets.</li> </ul>