

| Statutory Design & Technology Knowledge  |  | Design & Technology Skills Statements   |
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| <ul style="list-style-type: none"> <li>✓ Understand how key events and individuals in design and technology have helped shape the world</li> <li>✓ Understand the principles of a healthy and varied diet</li> <li>✓ Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</li> </ul> |  | <ul style="list-style-type: none"> <li>✓ Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</li> <li>✓ Investigate and analyse a range of existing products</li> <li>✓ Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> <li>✓ Select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately.</li> <li>✓ Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</li> <li>✓ Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>✓ Understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages</li> <li>✓ Understand and use electrical systems in their products, such as series circuits, incorporating switches, bulbs, buzzers and motors</li> <li>✓ Apply their understanding of computing to programme, monitor and control their products</li> <li>✓ Apply the principles of a healthy and varied diet</li> <li>✓ Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> </ul> |
| <b>Year 3</b><br>(18 APS)  | <ul style="list-style-type: none"> <li>• Pupils understand hygienic food preparation and storage</li> <li>• Pupils make healthy eating choices from an understanding of a balanced diet</li> <li>• Pupils know the order of the four seasons</li> <li>• See appendix 1 for possible relevant inventions/inventors to link to units</li> </ul>  | <ul style="list-style-type: none"> <li>• Pupils investigate similar products to the one to be made to give starting points for a design</li> <li>• Pupils generate ideas for an item, considering its purpose and the user/s</li> <li>• Pupils identify a purpose and establish criteria for a successful product.</li> <li>• Pupils plan the order of their work before starting</li> <li>• Pupils make drawings with labels when designing</li> <li>• Pupils select tools and techniques for making their product</li> <li>• Pupils measure, mark out, cut, score and assemble components with developing accuracy</li> <li>• Pupils work safely and accurately with a range of simple tools</li> <li>• Pupils think about their ideas as they make progress and be willing to change things if this helps them to improve their work</li> <li>• Pupils measure, tape or pin, cut and join fabric with some accuracy</li> <li>• Pupils use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT</li> <li>• Pupils evaluate their product against original design criteria e.g. how well it meets its intended purpose</li> </ul>   |
| <b>Year 4</b><br>(21 APS)  | <ul style="list-style-type: none"> <li>• Pupils understand hygienic food preparation and storage</li> <li>• Pupils make healthy eating choices from an understanding of a balanced diet</li> <li>• Pupils know the order of the four seasons and understand how the changes in these seasons effect food production</li> <li>• See appendix 1 for possible relevant inventions/inventors to link to units</li> </ul>   | <ul style="list-style-type: none"> <li>• Pupils know how to generate ideas, considering the purposes for which they are designing</li> <li>• Pupils make labelled drawings from different views showing specific features</li> <li>• Pupils 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 the first attempts fail</li> <li>• Pupils evaluate products and identify criteria that can be used for their own designs</li> <li>• Pupils select appropriate tools and techniques for making their product</li> <li>• Pupils measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</li> <li>• Pupils join and combine materials and components accurately in temporary and permanent ways</li> <li>• Pupils sew using a range of different stitches, to weave and knit</li> <li>• Pupils measure, tape or pin, cut and join fabric with some accuracy</li> <li>• Pupils evaluate their work both during and at the end of the assignment</li> <li>• Pupils evaluate their products carrying out appropriate tests</li> </ul>  |
| <b>Year 5</b><br>(24 APS)  | <ul style="list-style-type: none"> <li>• Pupils understand hygienic food preparation and storage</li> <li>• Pupils understand the rules for basic food hygiene and safe practice when cooking</li> <li>• Pupils show awareness of a healthy diet from an understanding of a balanced diet</li> <li>• Pupils know how a variety of ingredients are grown, reared, caught and processed</li> <li>• See appendix 1 for possible relevant inventions/inventors to link to units</li> </ul> | <ul style="list-style-type: none"> <li>• Pupils generate ideas through brainstorming and identify a purpose for their product</li> <li>• Pupils draw up a specification for their design</li> <li>• Pupils 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 the first attempts fail</li> <li>• Pupils use results of investigations, information sources, including ICT when developing design ideas</li> <li>• Pupils select appropriate materials, tools and techniques</li> <li>• Pupils measure and mark out accurately</li> <li>• Pupils use skills in using different tools and equipment safely and accurately</li> <li>• Pupils apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</li> <li>• Pupils cut and join with accuracy to ensure a good-quality finish to the product</li> <li>• Pupils evaluate a product against the original design specification and seek evaluation from others</li> </ul>   |

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| <b>Year 6 (27 APS)</b> | <ul style="list-style-type: none"> <li>• to understand hygienic food preparation and storage</li> <li>• to understand the rules for basic food hygiene and safe practice when cooking</li> <li>• Pupils show awareness of a healthy diet from an understanding of a balanced diet</li> <li>• Pupils know how a variety of ingredients are grown, reared, caught and processed</li> <li>• See appendix 1 for possible relevant inventions/inventors to link to units</li> </ul> | <ul style="list-style-type: none"> <li>• Pupils communicate their ideas through detailed labelled drawings</li> <li>• Pupils select appropriate tools, materials, components and techniques</li> <li>• Pupils assemble components to make working models</li> <li>• Pupils use tools safely and accurately</li> <li>• Pupils construct products using permanent joining techniques</li> <li>• Pupils make modifications as they go along</li> <li>• Pupils pin, sew and stitch materials together to create a product</li> <li>• Pupils achieve a quality product</li> <li>• Pupils evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests</li> <li>• Pupils evaluate against their original criteria and suggest ways that their product could be improved</li> </ul> |