

## Design & Technology Curriculum Progression – Lower Key Stage 2

DESIGNING	YEAR 3	YEAR 4
Understanding contexts, users and purposes	<ul style="list-style-type: none"> <li>• Work confidently within a range of contexts such as the home, school, leisure, culture, enterprise, industry and the wider environment</li> <li>• Describe the purpose of their product</li> <li>• Indicate design features that will appeal to intended users</li> <li>• Explain how particular parts of their product will work</li> </ul>	<ul style="list-style-type: none"> <li>• Work confidently within a range of contexts such as the home, school, leisure, culture, enterprise, industry and the wider environment</li> <li>• Describe the purpose of their product</li> <li>• Indicate design features that will appeal to intended users</li> <li>• Explain how particular parts of their product will work</li> <li>• Gather information about the needs and wants of individuals and groups.</li> <li>• Develop their own design criteria and use these to inform their ideas.</li> </ul>
Generating, developing, modeling and communicating ideas	<ul style="list-style-type: none"> <li>• Share and clarify ideas through discussion</li> <li>• Model ideas using prototypes and pattern pieces</li> <li>• Use annotated sketches and cross-sectional drawings to develop and communicate ideas.</li> <li>• Generate realistic ideas, focused on the needs of the user</li> </ul>	<ul style="list-style-type: none"> <li>• Share and clarify ideas through discussion</li> <li>• Model ideas using prototypes and pattern pieces</li> <li>• Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate ideas.</li> <li>• Use computer aided design to develop and communicate ideas</li> <li>• Generate realistic ideas, focused on the needs of the user</li> <li>• Make design decisions that take into account resource availability</li> </ul>
MAKING	YEAR 3	YEAR 4
Planning	<ul style="list-style-type: none"> <li>• Select tools and equipment suitable for the task</li> <li>• Select materials and components suitable for the task.</li> <li>• Explain their choice of materials and components according to functional properties and aesthetic qualities</li> </ul>	<ul style="list-style-type: none"> <li>• Select tools and equipment suitable for the task</li> <li>• Explain their choice of tools and equipment in relation to the skills and techniques they will be using</li> <li>• Select materials and components suitable for the task.</li> <li>• Explain their choice of materials and components according to functional properties and aesthetic qualities.</li> <li>• Order the main stages of making</li> </ul>
Practical skills and techniques	<ul style="list-style-type: none"> <li>• Follow procedures for safety and hygiene.</li> <li>• Use a wide range of materials and components inc. construction materials and kits, textiles, food ingredients, mechanical and electrical components</li> <li>• Measure, mark, cut and shape materials and components with some accuracy.</li> <li>• Assemble, join and combine materials and components with some accuracy.</li> <li>• Apply a range of finishing techniques, including those from art and design with some accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>• Follow procedures for safety and hygiene.</li> <li>• Use a wide range of materials and components inc. construction materials and kits, textiles, food ingredients, mechanical and electrical components</li> <li>• Measure, mark, cut and shape materials and components with some accuracy.</li> <li>• Assemble, join and combine materials and components with some accuracy.</li> <li>• Apply a range of finishing techniques, including those from art and design with some accuracy.</li> </ul>

EVALUATING	YEAR 3	YEAR 4
Own ideas and products	<ul style="list-style-type: none"> <li>Identify strengths and areas for development in their products.</li> <li>Consider the views of others, including intended users, to improve their work</li> <li>Refer to design criteria to evaluate products.</li> </ul>	<ul style="list-style-type: none"> <li>Identify strengths and areas for development in their products.</li> <li>Consider the views of others, including intended users, to improve their work</li> <li>Refer to their design criteria as they design, make and evaluate products.</li> </ul>
Existing products	<ul style="list-style-type: none"> <li>Explore how well products have been designed and made.</li> <li>Explore what materials and methods of construction have been used.</li> <li>Explore how well products work and achieve their purpose.</li> <li>Investigate who made products, where and when they were designed and made, whether they can be reused / recycled.</li> </ul>	<ul style="list-style-type: none"> <li>Explore how well products have been designed and made.</li> <li>Explore what materials and methods of construction have been used.</li> <li>Explore how well products work and achieve their purpose.</li> <li>Explore how well products meet user needs.</li> <li>Investigate who made products, where and when they were designed and made, whether they can be reused / recycled.</li> </ul>
Key events and individuals	<ul style="list-style-type: none"> <li>Know about relevant inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>	<ul style="list-style-type: none"> <li>Know about relevant inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>
TECHNICAL KNOWLEDGE	YEAR 3	YEAR 4
Making products work	<ul style="list-style-type: none"> <li>Know how to use learning from mathematics and science to help design and make products that work.</li> <li>Understand that materials have functional properties and aesthetic qualities</li> <li>Understand that mechanical and electrical systems have an input, process and output.</li> <li>Know how mechanical systems such as levers and linkages or pneumatic systems create movement.</li> <li>Know how simple electrical circuits can be used to create functional properties</li> <li>Know how to program a computer to control their product.</li> <li>Know how to make strong, stiff shell structures</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use learning from mathematics and science to help design and make products that work.</li> <li>Understand that materials have functional properties and aesthetic qualities.</li> <li>Understand that materials can be both combined and mixed to create more useful characteristics.</li> <li>Understand that mechanical and electrical systems have an input, process and output.</li> <li>Know the correct technical vocabulary for the projects they are undertaking.</li> <li>Know how mechanical systems such as levers and linkages or pneumatic systems create movement.</li> <li>Know how simple electrical circuits can be used to create functional properties</li> <li>Know how to program a computer to control their product.</li> <li>Know how to make strong, stiff shell structures.</li> <li>Understand that a single fabric shape can be used to make a 3-D textile product.</li> <li>Know that food ingredients can be fresh, pre-cooked and processed.</li> </ul>
COOKING & NUTRITION	YEAR 3	YEAR 4
Where food comes from	<ul style="list-style-type: none"> <li>Know that all food is grown, reared and caught, both in the UK and the wider world.</li> </ul>	<ul style="list-style-type: none"> <li>Know that all food is grown, reared and caught, both in the UK and the wider world.</li> </ul>
Food preparation, cooking and nutrition	<ul style="list-style-type: none"> <li>Know how to prepare and cook a variety of savoury dishes safely and hygienically, including using a heat source.</li> <li>Know how to use a range of techniques including peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>Know that a healthy diet is made up from a variety and balance of different foods and drink as depicted in 'The Eatwell Plate'</li> <li>Understand that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to prepare and cook a variety of savoury dishes safely and hygienically, including using a heat source.</li> <li>Know how to use a range of techniques including peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>Know that a healthy diet is made up from a variety and balance of different foods and drink as depicted in 'The Eatwell Plate'</li> <li>Understand that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>