

Features					
<p>At key stage 1 and 2, the knowledge progression takes full account of the national curriculum's strands of:</p> <ul style="list-style-type: none"> <li>○ Designing</li> <li>○ Making</li> <li>○ Evaluating</li> <li>○ Using technical knowledge</li> <li>○ Food technology</li> </ul>					
<ul style="list-style-type: none"> <li>• Skills are dependent on specific knowledge. A skill is the capacity to perform and in order to perform a deep body of knowledge needs to be acquired and retained.</li> </ul>					
<ul style="list-style-type: none"> <li>• These knowledge statements should be what pupils retain for ever. In other words, this knowledge is within their long-term memory and will be retained.</li> </ul>					
<ul style="list-style-type: none"> <li>• When considering pupils' improvement in subject specific vocabulary, pupils could be provided with a knowledge organiser which contains all words used for design technology for their age group.</li> </ul>					
National Curriculum Subject Content					
Strand	Designing	Making	Evaluating	Technical Knowledge	Food Technology
<b>Key Stage 1</b>	<ul style="list-style-type: none"> <li>• <i>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</i></li> <li>• <i>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</i></li> <li>• <i>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Explore and evaluate a range of existing products.</i></li> <li>• <i>Evaluate their ideas and products against design criteria.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Build structures, exploring how they can be made stronger, stiffer and more stable</i></li> <li>• <i>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Use the basic principles of a healthy and varied diet to prepare dishes.</i></li> <li>• <i>Understand where food comes from.</i></li> </ul>
<b>Class 1</b>	Cycle A -Topic 2,3,4,5,6 Cycle B - Topic 2,3,4,5,6	Cycle A - Topic 2,3,4,5,6 Cycle B - Topic 2,3,4,5,6	Cycle A - Topic 2,3,4,5,6 Cycle B -Topic 2,3,4,5,6	Cycle A - Topic 2,3,4,5,6 Cycle B -Topic 2,3,4,5,6	Cycle A -Topic 5 Cycle B -Topic 5
<b>Class 2</b>	Cycle A - Topic 1,2,3,4,5 Cycle B -Topic1,2,3,4,5	Cycle A -Topic 1,2,3,4,5 Cycle B -Topic1,2,3,4,5	Cycle A - Topic 1,2,3,4,5 Cycle B - Topic 1,2,3,4,5	Cycle A - Topic 1,2,3,4,5 Cycle B - Topic 1,2,3,4,5	Cycle B -Topic 3

<b>Key Stage 2</b>	<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>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> </ul>	<ul style="list-style-type: none"> <li>Select from and use a wider range of tools and equipment to perform practical tasks [for example, 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> </ul>	<ul style="list-style-type: none"> <li>Investigate and analyse a range of existing products.</li> <li>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</li> <li>Understand how key events and individuals in design and technology have helped shape the world.</li> </ul>	<ul style="list-style-type: none"> <li>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li> <li>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</li> <li>Apply their understanding of computing to program, monitor and control their products.</li> </ul>	<ul style="list-style-type: none"> <li>Understand and 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> <li>Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</li> </ul>
<b>Class 3</b>	Cycle A -Topic 1,2,3,4,5 Cycle B - Topic 1,2,3,4,5	Cycle A - Topic 1,2,3,4,5 Cycle B -Topic 1,2,3,4,5	Cycle A -Topic 1,2,3,4,5 Cycle B -Topic 1,2,3,4,5	Cycle A - Topic 1,2,3,4,5 Cycle B -Topic 1,2,3,4,5	Cycle A -Topic 3 Cycle B - Topic 3
<b>Class 4</b>	Cycle A -Topic 1,2,3,4,5 Cycle B - Topic 1,2,3,4,5	Cycle A -Topic 1,2,3,4,5 Cycle B- Topic 1,2,3,4,5	Cycle A - Topic 1,2,3,4,5 Cycle B - Topic 1,2,3,4,5	Cycle A - Topic 1,2,3,4,5 Cycle B - Topic 1,2,3,4,5	Cycle A -Topic 4 Cycle B - Topic 4

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Designing</b>	<ul style="list-style-type: none"> <li>use own ideas to design something</li> <li>begin to describe how their own idea works</li> <li>design a product which moves</li> <li>explain to someone else how they want to make their product</li> <li>make a simple plan before making</li> </ul>	<ul style="list-style-type: none"> <li>think of an idea and plan what to do next according to design criteria</li> <li>explain why they have chosen specific textiles</li> </ul>	<ul style="list-style-type: none"> <li>prove that a design meets a set criteria.</li> <li>design a product and make sure that it looks attractive</li> <li>choose a material for both its suitability and its appearance</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>Make annotated designs through sketches and diagrams</li> <li>Make prototypes</li> </ul>	<ul style="list-style-type: none"> <li>come up with a range of ideas after collecting information from different sources</li> <li>produce a detailed, step-by-step plan</li> <li>explain how a product will appeal to a specific audience</li> <li>design a product that requires pulleys or gears</li> </ul>	<ul style="list-style-type: none"> <li>use market research to inform plans and ideas.</li> <li>follow and refine original plans</li> <li>justify planning in a convincing way</li> <li>show that culture and society is considered in plans and designs</li> </ul>

<p><b>Making</b></p>	<ul style="list-style-type: none"> <li>• use own ideas to make something</li> <li>• make a product which moves</li> <li>• choose appropriate resources and tools</li> </ul>	<ul style="list-style-type: none"> <li>• choose tools and materials and explain why they have chosen them</li> <li>• join materials and components in different ways</li> <li>• measure materials to use in a model or structure</li> </ul>	<ul style="list-style-type: none"> <li>• follow a step-by-step plan, choosing the right equipment and materials</li> <li>• select the most appropriate tools and techniques for a given task</li> <li>• make a product which uses both electrical and mechanical components</li> <li>• work accurately to measure, make cuts and make holes</li> </ul>	<ul style="list-style-type: none"> <li>• Select from a wide range of tools and equipment</li> <li>• Use a wide range of materials and components</li> </ul>	<ul style="list-style-type: none"> <li>• use a range of tools and equipment competently</li> <li>• make a prototype before making a final version</li> <li>• make a product that relies on pulleys or gears</li> </ul>	<ul style="list-style-type: none"> <li>• know which tool to use for a specific practical task</li> <li>• know how to use any tool correctly and safely</li> <li>• know what each tool is used for</li> <li>• explain why a specific tool is best for a specific action</li> </ul>
<p><b>Evaluating</b></p>	<ul style="list-style-type: none"> <li>• talk about how they made their model</li> <li>• explain what works well and not so well in the model they have made</li> </ul>	<ul style="list-style-type: none"> <li>• evaluate their work against the design criteria</li> <li>• explain what went well with their work and begin to suggest improvements</li> </ul>	<ul style="list-style-type: none"> <li>• explain how to improve a finished model</li> <li>• know why a model has or has not been successful</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate and analyse a range of existing products</li> <li>• Evaluate their work against design criteria and consider the views of others to improve their work</li> <li>• Look at the work of others, to learn how D&amp;T has shaped the World around them</li> </ul>	<ul style="list-style-type: none"> <li>• suggest alternative plans; outlining the positive features and draw backs</li> <li>• evaluate appearance and function against original criteria</li> </ul>	<ul style="list-style-type: none"> <li>• know how to test and evaluate designed products</li> <li>• explain how products should be stored and give reasons</li> <li>• evaluate product against clear criteria</li> </ul>
<p><b>Technical Knowledge</b></p>	<ul style="list-style-type: none"> <li>• modify their own model to make it stronger</li> </ul>	<ul style="list-style-type: none"> <li>• make a model stronger and more stable</li> <li>• use wheels and axles, when appropriate to do so</li> </ul>	<ul style="list-style-type: none"> <li>• know how to strengthen a product by stiffening a given part or reinforce a part of the structure</li> <li>• use a simple IT program within the design</li> </ul>	<ul style="list-style-type: none"> <li>• apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>• understand and use mechanical systems in their products</li> <li>• understand and use electrical systems in their products</li> </ul>	<ul style="list-style-type: none"> <li>• links scientific knowledge to design by using pulleys or gears</li> <li>• uses more complex IT program to help enhance the quality of the product produced</li> </ul>	<ul style="list-style-type: none"> <li>• use electrical systems correctly and accurately to enhance a given product</li> <li>• know which IT product would further enhance a specific product</li> <li>• use knowledge to improve a made product by strengthening, stiffening or reinforcing</li> </ul>
<p><b>Food Technology</b></p>	<ul style="list-style-type: none"> <li>• cut food safely</li> </ul>	<ul style="list-style-type: none"> <li>• weigh ingredients to use in a recipe</li> <li>• describe the ingredients used when making a dish or cake</li> <li>• know that ingredients can be prepared in a range of ways</li> </ul>	<ul style="list-style-type: none"> <li>• describe how food ingredients come together</li> <li>• weigh out ingredients and follow a given recipe to create a dish</li> <li>• can talk about which food is healthy and which food is not</li> <li>• know when food is ready for harvesting</li> </ul>	<ul style="list-style-type: none"> <li>• know how to be both hygienic and safe when using food</li> <li>• bring a creative element to the food product being designed</li> </ul>	<ul style="list-style-type: none"> <li>• be both hygienic and safe in the kitchen</li> <li>• know how to prepare a meal by collecting the ingredients in the first place</li> <li>• know which season various foods are available for harvesting</li> </ul>	<ul style="list-style-type: none"> <li>• explain how food ingredients should be stored and give reasons</li> <li>• work within a budget to create a meal</li> <li>• understand the difference between a savoury and sweet dish</li> </ul>