

Year 1 National Curriculum Objectives: In year 1, children will be taught to:	
<u>Cooking and Nutrition:</u> <ul style="list-style-type: none"> <li>• Talk about what he/she eats at home and begin to discuss what healthy foods are.</li> <li>• Say where some food comes from and give examples of food that is grown.</li> <li>• Use simple tools with help to prepare food safely.</li> </ul>	<u>Developing planning and communicating ideas:</u> <ul style="list-style-type: none"> <li>• Create simple designs for a product.</li> <li>• Use pictures and words to describe what he/she wants to do.</li> </ul>
<u>Working with tools, equipment, materials and components to make quality products:</u> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.</li> <li>• Use a range of simple tools to cut, join and combine materials and components safely.</li> </ul>	<u>Mechanisms</u> <ul style="list-style-type: none"> <li>• Explore and use mechanisms e.g. levers, sliders, in his/her products.</li> </ul>
<u>Construction</u> <ul style="list-style-type: none"> <li>• Build structures, exploring how they can be made stronger, stiffer and more stable.</li> </ul>	<u>Evaluating processes and products:</u> <ul style="list-style-type: none"> <li>• Ask simple questions about existing products and those that he/she has made.</li> </ul>

Year 2 National Curriculum Objectives: In year 2, children will be taught to:	
<u>Cooking and Nutrition:</u> <ul style="list-style-type: none"> <li>Understand the need for a variety of food in a diet.</li> <li>Understand that all food has to be farmed, grown or caught.</li> <li>Use a wider range of cookery techniques to prepare food safely.</li> </ul>	<u>Developing planning and communicating ideas:</u> <ul style="list-style-type: none"> <li>Design purposeful functions, appealing products for himself/herself and other users based on design criteria.</li> <li>Generate, develop, model and communicate his/her ideas through talking drawing, templates, mock-ups and, where appropriate, information and communication technology.</li> </ul>
<u>Working with tools, equipment, materials and components to make quality products:</u> <ul style="list-style-type: none"> <li>Choose appropriate tools, equipment, techniques and materials from a wide range.</li> <li>Safely measure, mark out, cut and shape materials and components using a range of tools.</li> </ul>	<u>Mechanisms</u> <ul style="list-style-type: none"> <li>Explore and use mechanisms e.g. wheels and axles, in his/her products.</li> </ul>
<u>Construction</u> <ul style="list-style-type: none"> <li>Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.</li> </ul>	<u>Evaluating processes and products:</u> <ul style="list-style-type: none"> <li>Evaluate and assess existing products and those that he/she has made using design criteria.</li> </ul>

Year 3 National Curriculum Objectives: In year 3, children will be taught to:	
<u>Cooking and Nutrition:</u> <ul style="list-style-type: none"> <li>• Talk about the different food groups and name food from each group.</li> <li>• Understand that food has to be grown, farmed or caught in Europe and the wider world.</li> <li>• Use a wider variety of ingredients and techniques to prepare and combine ingredients safely.</li> </ul>	<u>Developing planning and communicating ideas:</u> <ul style="list-style-type: none"> <li>• Use knowledge of existing products to design his/her own functional products.</li> <li>• Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes.</li> </ul>
<u>Working with tools, equipment, materials and components to make quality products:</u> <ul style="list-style-type: none"> <li>• Safely measure, mark out, cut assemble and join with some accuracy.</li> <li>• Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.</li> </ul>	<u>Mechanisms</u> <ul style="list-style-type: none"> <li>• Understand how pneumatic systems create movement.</li> </ul>
<u>Construction</u> <ul style="list-style-type: none"> <li>• Strengthen frames using diagonal struts</li> </ul>	<u>Evaluating processes and products:</u> <ul style="list-style-type: none"> <li>• Investigate and analyse existing products and those he/she has made, considering a wide range of factors.</li> </ul>

**Year 4 National Curriculum Objectives: In year 4, children will be taught to:**

Cooking and Nutrition:

- Understand what makes a healthy and balance diet, and that different foods and drinks provide different substances the body needs to be healthy and active.
- Understand seasonality and the advantages of eating seasonal locally produced food.
- Read and follow recipes which involve several processes, skills and techniques.

Developing planning and communicating ideas:

- Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience.
- Create designs using an exploded diagram.

Working with tools, equipment, materials and components to make quality products:

- Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. cutting internal shapes, slots in frameworks.
- Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them.

Mechanisms

- Understand and use electrical systems in products.

Construction

- Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas.

Evaluating processes and products:

- Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user.



**Year 5 National Curriculum Objectives: In year 5, children will be taught to:**

Cooking and Nutrition:

- Understand the main food groups and the different nutrients that are important for health.
- Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/tasty to eat.
- Select appropriate ingredients and use a wide range of techniques to combine them.

Developing planning and communicating ideas:

- Use his/her market research to inform the design of his/her own innovative product.
- Create prototypes to show his/her ideas.

Working with tools, equipment, materials and components to make quality products:

- Make careful precise measurements so that joins, holes and opening are in exactly the right place.
- Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques.

Mechanisms

- Understand how to use more complex mechanical and electrical systems.

Construction

- Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them strong or more stable.

Evaluating processes and products:

- Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work.

**Year 6 National Curriculum Objectives: In year 6, children will be taught to:**

<p><u>Cooking and Nutrition:</u></p> <ul style="list-style-type: none"> <li>• Confidently plan a series of healthy meals based on the principles of a healthy and varied diet.</li> <li>• Use information on food labels to inform choices.</li> <li>• Research, plan and prepare and cook a savoury dish applying his/her knowledge of ingredients and his/her technical skill.</li> </ul>	<p><u>Developing planning and communicating ideas:</u></p> <ul style="list-style-type: none"> <li>• Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products.</li> <li>• Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> </ul>
<p><u>Working with tools, equipment, materials and components to make quality products:</u></p> <ul style="list-style-type: none"> <li>• Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities.</li> <li>• Use technical knowledge and accurate skills to problem solve during the making process.</li> </ul>	<p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>• .Apply his/her understanding of computing to program, monitor and control his/her product.</li> </ul>
<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• Use a wide range of methods to strengthen, stiffen and reinforce complex structures and use them accurately and appropriately.</li> </ul>	<p><u>Evaluating processes and products:</u></p> <ul style="list-style-type: none"> <li>• Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she has made.</li> </ul>