## Design and Technology

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cooking and Nutrition	<ul> <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>	<ul> <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>	<ul> <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>	<ul> <li>Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active</li> </ul>	<ul> <li>Understand the main food groups and the different nutrients that are important for health</li> <li>Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable / tasty to eat</li> <li>Select appropriate ingredients and use a wide range of techniques to combine them</li> </ul>	<ul> <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 skills</li> </ul>
Processes	<ul> <li>Create simple designs for a product</li> <li>Use pictures and words to describe what he/she wants to do</li> <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> <li>Ask simple questions about existing products and those that he/she has made</li> <li>Build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>Use wheels and axles in a product</li> </ul>	<ul> <li>Design purposeful, functional, 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> <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> <li>Evaluate and assess existing products and those that he/she has made using a design criteria</li> <li>Investigate different techniques for stiffening a vuriety of materials and explore different methods of enabling structures to remain stable</li> <li>Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products</li> </ul>	<ul> <li>Use knowledge of existing products to design his/her own functional product</li> <li>Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes</li> <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> <li>Investigate and analyse existing products and those he/she has made, considering a wide range of factors</li> <li>Strengthen frames using diagonal struts</li> <li>Understand how mechanical systems such as levers and linkages or pneumatic systems create movement</li> </ul>	<ul> <li>Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience.</li> <li>Create designs using exploded diagrams</li> <li>Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks</li> <li>Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them</li> <li>Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user</li> </ul>	<ul> <li>Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product</li> <li>Create prototypes to show his/her ideas</li> <li>Make careful and precise measurements so that joins, holes and openings are in exactly the right place</li> <li>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</li> <li>Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work</li> <li>Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger or more stable</li> <li>Understand how to use more complex mechanical and electrical systems</li> </ul>	<ul> <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> <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 of famous designs to further explain the effectiveness of existing products and products he/she have made</li> <li>Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately</li> <li>Apply his/her understanding of computing to program, monitor and control his/her product</li> </ul>