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| KS1 – Design and Technology | |
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| Y1 | Y2 |
| **Key knowledge –know about** | **Key knowledge –know about** |
| **Cooking and Nutrition**   * Talk about what he/she eats at home and begin to discuss what healthy foods are * Say where some food comes from and give examples of food that is grown * Use simple tools with help to prepare food safely | **Cooking and Nutrition**   * Understand the need for a variety of food in a diet * Understand that all food has to be farmed, grown or caught * Use a wider range of cookery techniques to prepare food safely |
| **Processes**   * Create simple designs for a product * Use pictures and words to describe what he/she wants to do * Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing * Use a range of simple tools to cut, join and combine materials and components safely * Ask simple questions about existing products and those that he/she has made * Build structures, exploring how they can be made stronger, stiffer and more stable * Use wheels and axles in a product | **Processes**   * Design purposeful, functional, appealing products for himself/herself and other users based on design criteria * Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology * Choose appropriate tools, equipment, techniques and materials from a wide range * Safely measure, mark out, cut and shape materials and components using a range of tools * Evaluate and assess existing products and those that he/she has made using a design criteria * Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable * Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products |

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| KS2 –Design and Technology | |
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| Y3 | Y4 |
| **Key knowledge –know about** | **Key knowledge –know about** |
| **Cooking and Nutrition**   * Talk about the different food groups and name food from each group * Understand that food has to be grown, farmed or caught in Europe and the wider world * Use a wider variety of ingredients and techniques to prepare and combine ingredients safely | **Cooking and Nutrition**   * 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 * Understand seasonality and the advantages of eating seasonal and locally produced food * Read and follow recipes which involve several processes, skills and techniques |
| **Processes**   * Use a wider variety of ingredients and techniques to prepare and combine ingredients safely * Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes * Safely measure, mark out, cut, assemble and join with some accuracy * Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them * Investigate and analyse existing products and those he/she has made, considering a wide range of factors * Strengthen frames using diagonal struts * Understand how mechanical systems such as levers and linkages or pneumatic systems create movement | **Processes**   * Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience * Create designs using exploded diagrams * 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 * Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user * Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas * Understand and use electrical systems in products |

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| Y5 | Y6 |
| **Key knowledge –know about** | **Key knowledge –know about** |
| **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 | **Cooking and Nutrition**   * Confidently plan a series of healthy meals based on the principles of a healthy and varied diet * Use information on food labels to inform choices * Research, plan and prepare and cook a savoury dish, applying his/her knowledge of ingredients and his/her technical skills |
| **Processes**   * Select appropriate ingredients and use a wide range of techniques to combine them * Create prototypes to show his/her ideas * Make careful and precise measurements so that joins, holes and openings 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 * Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work * Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger or more stable * Understand how to use more complex mechanical and electrical systems | **Processes**   * Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products * Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design * Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities * Use technical knowledge accurate skills to problem solve during the making process * Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she have made * Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately * Apply his/her understanding of computing to program, monitor and control his/her product |