



Year Group	Design	Make	Technical Knowledge	Cooking and nutrition	Evaluate
EYFS	<ul> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</li> <li>Share their creations, explaining the process they have used</li> <li>Use a range of small tools, including scissors, paint brushes and cutlery</li> <li>Begin to show accuracy and care when drawing.</li> </ul>				
Year 1	<ul> <li>Work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment.</li> <li>State what products they are designing and making.</li> <li>Know whether their products are for themselves or other users.</li> <li>Describe the purpose of their product and the audience it is for.</li> <li>Explain to an adult or peer</li> </ul>	<ul> <li>Select from a range of tools and equipment, explaining their choices.</li> <li>Select from a range of materials and components according to their characteristics.</li> <li>Follow procedures for safety and hygiene.</li> <li>Use a range of materials and components, including construction materials and kits, textiles and mechanical components.</li> </ul>	<ul> <li>Talk about the simple working characteristics of materials and components.</li> <li>Discuss the movement of simple mechanisms such as levers, sliders, wheels and axles.</li> <li>Explore how freestanding structures can be made stronger, stiffer and more stable.</li> <li>Use the correct technical vocabulary for the projects they</li> </ul>	<ul> <li>Know that all food comes from plants or animals.</li> <li>Research and understand that food has to be farmed, grown elsewhere (e.g. home) or caught.</li> <li>Know how to name and sort foods into the five groups in The Eatwell plate.</li> <li>Understand that everyone should eat at least five portions of fruit and vegetables every day.</li> </ul>	<ul> <li>Talk about their design ideas and what they are making.</li> <li>Make simple judgements about their products and ideas against design criteria.</li> <li>Suggest how their products could be improved.</li> <li>Discuss what products are, who they are for, how they work, how products are used, what materials will be most appropriate for the intended</li> </ul>
Year 2	<ul> <li>how their products will work.</li> <li>Use simple design criteria to help support and develop their ideas.</li> <li>Generate ideas by drawing on their own experiences.</li> <li>Use knowledge of existing products to help come up with ideas.</li> <li>Communicate ideas through initial discussions and drawings.</li> </ul>	<ul> <li>Measure, mark out, cut and shape materials and components.</li> <li>Assemble, join and combine materials and components.</li> <li>Use finishing techniques, including those from art and design.</li> </ul>	<ul> <li>are undertaking, e.g. join, hinge, fasten, pulley.</li> <li>Explore, if appropriate, whether a 3-D textiles product can be assembled from two identical fabric shapes.</li> </ul>	<ul> <li>Prepare simple dishes safely and hygienically, without using a heat source.</li> <li>Use techniques such as cutting, peeling and grating.</li> </ul>	<ul> <li>Evaluate what is good about own and others pieces of work and if there is anything that they could do to make it even better.</li> </ul>





	<ul> <li>Model ideas by exploring materials, components and construction kits and by making templates and mock-ups.</li> <li>Use information and communication technology, where appropriate, to develop and communicate their ideas.</li> </ul>				
Year 3	<ul> <li>Work confidently within a range of contexts, such as the home, school, leisure, enterprise and the wider environment.</li> <li>Describe the purpose and intended audience of their products.</li> <li>Design features that will appeal to intended users.</li> <li>Explain verbally how the specific components of their products are intended to function.</li> <li>Gather information about the needs and wants of particular individuals and groups, in order to better construct products for an audience.</li> <li>Develop their own design</li> </ul>	<ul> <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 the construction process.</li> <li>Follow and recite procedures for safety and hygiene.</li> <li>Use a wider range of materials and components than KS1, including construction materials and kits, textiles, mechanical components and</li> </ul>	<ul> <li>Apply learning from mathematics and science to help design and make products that work.</li> <li>Discuss materials that have both functional properties and aesthetic qualities.</li> <li>Explore which materials can be combined and mixed to create more useful characteristics.</li> <li>Know mechanical and electrical systems have an input, process and output.</li> <li>Use correct technical vocabulary for the projects they are undertaking.</li> <li>Know that mechanical systems such as levers and linkages or pneumatic systems create</li> </ul>	<ul> <li>Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> </ul>	<ul> <li>Identify the strengths and areas for development in their ideas and 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 and make products.</li> <li>Use their design criteria to evaluate their completed products.</li> <li>Discuss how well products have been designed, why materials have been chosen, what methods of construction have been used, whether products work, how successful they are against the</li> </ul>
Year 4	<ul> <li>criteria and use these to inform their ideas.</li> <li>Share and clarify ideas through discussion.</li> <li>Model their ideas using prototypes and pattern pieces.</li> <li>Use annotated sketches, cross- sectional drawings and exploded</li> </ul>	<ul> <li>electrical components.</li> <li>Measure, mark out, cut and shape materials and components with some accuracy.</li> <li>Assemble, join and combine materials and components with some accuracy, such as two pieces of dowel</li> </ul>	<ul> <li>movement.</li> <li>Apply and explore simple electrical circuits and components in order to create functional products.</li> <li>Explore how to program a computer to control their products.</li> </ul>	• Understand and apply the knowledge that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell plate.	<ul> <li>intended outcome and whether they meet the users' needs or not.</li> <li>Investigate and analyse who designed and made the products, where products were designed and made, when products were designed and made and whether</li> </ul>





	diagrams to develop and communicate their ideas. • Use computer-aided design to develop and communicate their ideas. • Make design decisions that take account of the availability of resources.	joined as a corner using a hot glue gun. • Apply a range of finishing techniques, including those from art and design, with some accuracy, e.g. varnish.	<ul> <li>Explore how to make strong, stiff shell structures.</li> <li>Discuss that a single fabric shape can be used to make a 3D textiles product.</li> </ul>	<ul> <li>Know that to be active and healthy, food and drink are needed to provide energy for the body.</li> <li>Use food ingredients that are fresh, pre-cooked and processed.</li> <li>Combine food ingredients according to their sensory characteristics.</li> </ul>	<ul> <li>products can be recycled or reused.</li> <li>Evaluate, using 2 stars and a wish approach, own and others pieces of work.</li> </ul>
Year 5 Year 6	<ul> <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 and intended audience of their products and how the product will suit the needs of the user.</li> <li>Indicate the design features of their products that will appeal to intended users and explain why these would be appealing.</li> <li>Explain in writing how the specific components of their products of their products are intended to function and their purpose.</li> <li>Carry out research, using surveys, interviews, questionnaires and web-based resources.</li> <li>Identify the needs, wants, preferences and values of</li> </ul>	<ul> <li>Produce appropriate lists of tools, equipment and materials that they need.</li> <li>Formulate step-by-step plans as a guide to making.</li> <li>Accurately measure, mark out, cut and shape materials and components.</li> <li>Accurately assemble, join and combine materials and components.</li> <li>Accurately apply a range of finishing techniques, including those from art and design.</li> <li>Use techniques that involve a number of steps to create a finished product.</li> <li>Demonstrate resourcefulness when tackling practical problems.</li> </ul>	<ul> <li>Explore how mechanical systems such as cams or pulleys or gears create movement.</li> <li>Discuss how more complex electrical circuits and components can be used to create functional products.</li> <li>Explore and discuss how to program a computer to monitor changes in the environment and control their products.</li> <li>Be able to reinforce and strengthen a 3D framework.</li> <li>Know that a 3D textiles product can be made from a combination of fabric shapes.</li> </ul>	<ul> <li>Understand that seasons may affect the food available.</li> <li>Know how food is processed into ingredients that can be eaten or used in cooking.</li> <li>Adapt recipes to change the appearance, taste, texture and aroma.</li> <li>Discuss the ways different food and drink contain different substances - nutrients, water and fibre - that are needed for health.</li> <li>Explore and discuss that a recipe can be adapted by adding or substituting one or more ingredients.</li> </ul>	<ul> <li>Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.</li> <li>Evaluate their ideas and products against their original design specification.</li> <li>Investigate and analyse how much products cost to make, how innovative products are, how sustainable the materials in products are, what impact products have beyond their intended purpose.</li> </ul>





particular individuals and		
groups.		
<ul> <li>Develop a design specification</li> </ul>		
to guide their thinking.		
• Generate innovative ideas,		
drawing on research.		
<ul> <li>Make design decisions, taking</li> </ul>		
account of constraints such as		
time, resources and cost.		