

**Courage, Humility, Offering, Integrity, Commitment, Empathy, Service**

**Design and Technology Progression Pathway**

	Cycle A	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Children should be inspired to construct and build using pictures of current buildings, bridges and interesting structures such as pyramids.			should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products			
DESIGNING	Understanding context, users and purposes	Understand that things can be made for a purpose. Explore materials and try to reach a planned objective. (Such as making a soft bed or a waterproof coat for a toy.)	Work within a range of contexts, such as imaginary, story-based, home and school, Say what products they are designing and making Say whether their products are for themselves or other users Describe what their products are for Say how their products will work	Work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds and local community Describe what products they are designing and making Explain whether their products are for themselves or other users Describe what their products are for and how they will work Describe how they will make their products suitable for their intended users Use simple design criteria to help develop their ideas.	Work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment Describe the purpose of their products Indicate the design features of their products that will appeal to intended users Explain how particular parts of their products work			
		Generating, developing, modelling and communicating ideas	Share ideas about what is being created. Generate ideas by drawing on their own experiences Use knowledge of existing products to help come up with ideas Develop and communicate ideas by talking and drawing	Model ideas by exploring materials, components and construction kits and by making templates and mock-ups Use information and communication technology, where appropriate, to develop and communicate their ideas	Share and clarify ideas through discussion Model their ideas using prototypes and pattern pieces Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas Use computer-aided design to develop and communicate their ideas			
MAKING	Planning	Draw a simple design and give meaning to designs drawn. Beginning to consider what tools may be needed for a task. Consider what materials or construction equipment may work best for the task at hand (E.G., tape or glue for joining two items.)	Plan by suggesting what to do next Select from a range of materials and components	Select from a range of tools and equipment, explaining their choices Select from a range of materials and components according to their characteristics	Select tools and equipment suitable for the task Explain their choice of tools and equipment in relation to the skills and techniques they will be using Select materials and components suitable for the task Explain their choice of materials and components according to functional properties and aesthetic qualities			
		Practical Skills and Techniques	Use a range of materials and practice skills such as cutting and sticking Follow a simple set of safety rules Use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components	Follow procedures for safety and hygiene Measure, mark out, cut and shape materials and components Assemble, join and combine materials and components Use finishing techniques, including those from art and design	Order the main stages of making Formulate a simple plan as a guide to making Formulate a simple step-by-step plan as a guide to making Produce appropriate lists of materials that are needed	Follow procedures for safety and hygiene Use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components		
EVALUATING	Own ideas and products	Share their creations, explaining the process they have used.	Talk about their design ideas and what they are making	Talk, in more detail, about their design ideas and what they are making	Identify the strengths and areas for development in their ideas and products Consider the views of others, including intended users, to improve their work			

		Highlight changes they would like to make in the future.	Make simple judgements about their products and ideas	Make simple judgements about their products and ideas against design criteria Suggest how their products could be improved	Refer to their design criteria as they design and make	Use their design criteria to evaluate their completed products <i>Critically evaluate the quality of the design, manufacture and fitness for purpose of their</i>	<i>Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make</i>	Compare their ideas and products to their original design specification
	Existing Products	Explore products and their functions. Discover the differences between different materials and begin to understand some of the properties materials have	Explore - What products are for Who products are for What products are for How products work	Explore How products are used Where products might be used What materials products are made from What they like and dislike about products	Investigate and analyse: How well products have been designed How well products have been made Why materials have been chosen What methods of construction have been used How well products work How well products achieve their purposes How well products meet user needs and wants			
					Who designed and made the products Where products were designed and made	When products were designed and made Whether products can be recycled or reused	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
TECHNICAL KNOWLEDGE	Making products work	Understand how freestanding structures or towers can be made more stable. Ask questions about how things work and explore products (for example, pull back cars, slinkies, locks and keys.)	Know – About the simple working characteristics of materials and components About the movement of simple mechanisms such as levers, sliders, wheels and axles	Know - How freestanding structures can be made stronger, stiffer and more stable That a 3-D textiles product can be assembled from two identical fabric shapes That food ingredients should be combined according to their sensory characteristics The correct technical vocabulary for the projects they are undertaking	Know How to use learning from science to help design and make products that work How to use learning from mathematics to help design and make products that work That materials have both functional properties and aesthetic qualities That materials can be combined and mixed to create more useful characteristics That mechanical and electrical systems have an input, process and output The correct technical vocabulary for the projects they are undertaking			
					How mechanical systems such as levers and linkages or pneumatic systems create movement How simple electrical circuits and components can be used to create functional products	How to program a computer to control their products How to make strong, stiff shell structures That a single fabric shape can be used to make a 3D textiles product  That food ingredients can be fresh, pre-cooked and processed	Alps creation including electrical circuits Know that mechanical and electrical systems have an input, process and output Understand how more complex electrical circuits and components can be used to create functional products (Term 3)  Know that a recipe is created by adding one or more ingredients.	Understand how cams, pulleys and gears create movement (Term 3 – pulleys, Term 5 – cams) How to program a computer to monitor changes in the environment and control their products How to reinforce and strengthen a 3D framework That a 3D textiles product can be made from a combination of fabric shapes Know that a recipe can be adapted a by adding or substituting one or more ingredients
COOKING & NUTRITION	Where food comes from		Know – That all food comes from plants or animals	Know – That food has to be farmed, grown elsewhere (e.g. home) or caught	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	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	Linked to Trade and fair trade <i>Know that seasons may affect the food available</i> <i>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</i>	Linked to Trade and fair trade <i>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</i> <i>Understand how food is processed into ingredients that can be eaten or used in cooking</i>

	<p style="text-align: center;"><b>Food preparation, cooking and nutrition</b></p>	<p>To understand the importance of good hygiene when dealing with food.</p> <p>To use tools safely and for the correct purpose.</p> <p>To understand the need for a balanced diet and name some healthy and unhealthy foods.</p> <p>Know how to wash homegrown produce.</p> <p>Make a sandwich following basic instructions.</p>	<p>Know –</p> <p>How to name and sort foods into the five groups in the Eatwell plate</p> <p>That everyone should eat at least five portions of fruit and vegetables every day</p>	<p>Know</p> <p>How to prepare simple dishes safely and hygienically, without using a heat source</p> <p>How to use techniques such as cutting, peeling and grating</p>	<p>Starting in Year Three and over Key Stage 2</p> <p>How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>	<p>Know</p> <p>That a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell plate</p> <p>That to be active and healthy, food and drink are needed to provide energy for the body</p>	<p>Link to countries we investigated in Term 4 – traditional dishes</p> <p><i>How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</i></p> <p><i>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</i></p> <p><i>Measure accurately</i></p> <p><i>Work out ratios in recipes</i></p>	<p>Link to countries we investigated in Term 4 – traditional dishes</p> <p><i>How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</i></p> <p><i>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</i></p> <p><i>Know that recipes can be adapted to change the appearance, taste, texture and aroma</i></p> <p><i>Know that different foods contain different substances - nutrients, water and fibre - that are needed for health</i></p> <p><i>Understand the need for correct storage</i></p>
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