



Design and Technology – Learning Map

<u>Year Group</u>	<u>Knowledge and Skills to be taught:</u>			<u>Learning Opportunities:</u>
	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products (inc food)	Evaluating processes and products	
Nursery	<ul style="list-style-type: none"> • Uses various construction materials • Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces • Joins construction pieces together to build and balance • Realises tools can be used for a purpose 			<ul style="list-style-type: none"> • Constructing models based around own imaginary play.
Reception	<ul style="list-style-type: none"> • Manipulates materials to achieve a planned effect • Constructs with a purpose in mind, using a variety of resources • Uses simple tools and techniques competently and appropriately • Selects appropriate resources and adapts work where necessary • Selects tools and techniques needed to shape, assemble and join materials they are using 			<ul style="list-style-type: none"> • Constructing models based around own imaginary play. • Cutting own fruit for snack
Year 1	<ul style="list-style-type: none"> • Draw on their own experience to help generate ideas • Suggest ideas and explain what they are going to do • Identify a target group for what they intend to design and make • Model their ideas in card and paper • Develop their design ideas applying findings from their earlier research 	<ul style="list-style-type: none"> • Make their design using appropriate techniques • With help measure, mark out, cut and shape a range of materials • Use tools eg scissors and a hole punch safely • Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape • Select and use appropriate fruit and vegetables, processes and tools • Use basic food handling, hygienic practices and personal hygiene • Use simple finishing techniques to improve the appearance of 	<ul style="list-style-type: none"> • Evaluate their product by discussing how well it works in relation to the purpose • Evaluate their products as they are developed, identifying strengths and possible changes they might make • Evaluate their product by asking questions about what they have made and how they have gone about it 	<ul style="list-style-type: none"> • Making simple puppets using/refining cutting skills and joining with hole punch and wire food ties • Make own sandwiches, using knives and graters safely.

		<ul style="list-style-type: none"> • their product 		
Year 2	<ul style="list-style-type: none"> • Generate ideas by drawing on their own and other people's experiences • Develop their design ideas through discussion, observation , drawing and modelling • Identify a purpose for what they intend to design and make • Identify simple design criteria • Make simple drawings and label parts • • 	<ul style="list-style-type: none"> • Begin to select tools and materials; use vocab' to name and describe them • Measure, cut and score with some accuracy • Use hand tools safely and appropriately • Assemble, join and combine materials in order to make a product • Cut, shape and join fabric to make a simple garment. Use basic sewing techniques • Follow safe procedures for food safety and hygiene • Choose and use appropriate finishing techniques 	<ul style="list-style-type: none"> • Evaluate against their design criteria • Evaluate their products as they are developed, identifying strengths and possible changes they might make • Talk about their ideas, saying what they like and dislike about them 	<ul style="list-style-type: none"> • Sewing cheese bag to bury cheese like Samuel Pepys • Make moving models of fire engines using axels • Make bread rolls • Create a fruit salad, cutting own fruit
Year 3	<ul style="list-style-type: none"> • Generate ideas for an item, considering its purpose and the user/s • Identify a purpose and establish criteria for a successful product. • Plan the order of their work before starting • Explore, develop and communicate design proposals by modelling ideas • Make drawings with labels when designing 	<ul style="list-style-type: none"> • Select tools and techniques for making their product • Measure, mark out, cut, score and assemble components with more accuracy • Work safely and accurately with a range of simple tools • Think about their ideas as they make progress and be willing change things if this helps them improve their work • Measure, tape or pin, cut and join fabric with some accuracy • Demonstrate hygienic food preparation and storage 	<ul style="list-style-type: none"> • Evaluate their product against original design criteria e.g. how well it meets its intended purpose • Disassemble and evaluate familiar products 	<ul style="list-style-type: none"> • Making fruit salad • Stone Age tools • Design bag, tools • Make 3D volcanoes • Photo frame

		<ul style="list-style-type: none"> • Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT 		
Year 4	<ul style="list-style-type: none"> • Generate ideas, considering the purposes for which they are designing • Make labelled drawings from different views showing specific features • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail • Evaluate products and identify criteria that can be used for their own designs 	<ul style="list-style-type: none"> • Select appropriate tools and techniques for making their product • Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques • Join and combine materials and components accurately in temporary and permanent ways • Sew using a range of different stitches, weave and knit • Measure, tape or pin, cut and join fabric with some accuracy • Use simple graphical communication techniques 	<ul style="list-style-type: none"> • Evaluate their work both during and at the end of the assignment • Evaluate their products carrying out appropriate tests 	<ul style="list-style-type: none"> • Models of Egyptian gadgets (recreated in miniature to analyse how they work) • Making pizza (including dough) • Creating carnival costumes
Year 5	<ul style="list-style-type: none"> • Generate ideas through brainstorming and identify a purpose for their product • Draw up a specification for their design • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making • if the first attempts fail • Use results of investigations, information sources, including ICT when developing design 	<ul style="list-style-type: none"> • Select appropriate materials, tools and techniques • Measure and mark out accurately • Use skills in using different tools and equipment safely and accurately • Weigh and measure accurately (time, dry ingredients, liquids) • Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens • Cut and join with accuracy to ensure a good-quality finish to the product 	<ul style="list-style-type: none"> • Evaluate a product against the original design specification • Evaluate it personally and seek evaluation from others 	<ul style="list-style-type: none"> • Making cakes and biscuits to sell • Moving fairground rides (using electricity) • Anderson shelters (improve for strength)

	<ul style="list-style-type: none"> • ideas 			
Year 6	<ul style="list-style-type: none"> • Communicate their ideas through detailed labelled drawings • Develop a design specification • Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways • Plan the order of their work, choosing appropriate materials, tools and techniques 	<ul style="list-style-type: none"> • Select appropriate tools, materials, components and techniques • Assemble components make working models • Use tools safely and accurately • Construct products using permanent joining techniques • Make modifications as they go along • Pin, sew and stitch materials together create a product • Achieve a quality product 	<ul style="list-style-type: none"> • Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests • Record their evaluations using drawings with labels • Evaluate against their original criteria and suggest ways that their product could be improved 	<ul style="list-style-type: none"> • Rockets using pneumatics (syringes) • Developing cake/biscuit recipes to individualise them • Victorian samplers (various stitches) • Making pincushions/stuffed toys