



St Mary and St Peter Catholic Primary School

Progression in Design and Technology

Skill	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Design</p>	<p>Begin to draw on their own experience to help generate ideas and research conducted on criteria.</p> <p>Begin to understand the development of existing products: what they are for, how they work, materials used.</p> <p>Start to suggest ideas and explain what they are going to do.</p> <p>Understand how to identify a target group for what they intend to design and make based on a design criteria.</p> <p>Begin to develop their ideas through talk and drawings.</p>	<p>Start to generate ideas by drawing on their own and other people's experiences.</p> <p>Begin to develop their design ideas through discussion, observation, drawing and modelling.</p> <p>Identify a purpose for what they intend to design and make.</p> <p>Understand how to identify a target group for what they intend to design and make based on a design criteria.</p> <p>Develop their ideas through talk and drawings and label parts.</p>	<p>With growing confidence generate ideas for an item, considering its purpose and the user/s.</p> <p>Start to order the main stages of making a product.</p> <p>Identify a purpose and establish criteria for a successful product.</p> <p>Understand how well products have been designed, made, what materials have been used and the construction technique.</p> <p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</p> <p>Start to understand whether products can be recycled or reused.</p> <p>Know to make drawings with labels when designing.</p> <p>When planning, explain their choice of materials and components including function and aesthetics.</p>	<p>Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science.</p> <p>Confidently make labelled drawings from different views showing specific features.</p> <p>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.</p> <p>Identify the strengths and areas for development in their ideas and products.</p> <p>When planning, consider the views of others, including intended users, to improve their work.</p> <p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</p> <p>When planning, explain their choice of materials and components according to function and aesthetic.</p>	<p>Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD.</p> <p>Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>With growing confidence apply a range of finishing techniques, including those from art and design</p> <p>Draw up a specification for their design- link with Mathematics and Science. Use results of investigations, information sources, including ICT when developing design ideas.</p> <p>With growing confidence select appropriate materials, tools and techniques.</p> <p>Start to understand how much products cost to make, how sustain and innovative they are and the impact products have beyond their intended purpose.</p>	<p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD.</p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>Accurately apply a range of finishing techniques, including those from art and design.</p> <p>Draw up a specification for their design- link with Mathematics and Science.</p> <p>Plan the order of their work, choosing appropriate materials, tools and techniques. Suggest alternative methods of making it if the first attempts fail.</p> <p>Identify the strengths and areas for development in their ideas and products.</p> <p>Know how much products cost to make, how innovative they are and the impact products have beyond their intended purpose.</p>



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Make	<p>With help measure, mark out, cut and shape a range of materials.</p> <p>Explore using tools e.g. scissors and a hole punch safely.</p> <p>Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape.</p> <p>Begin to use simple finishing techniques to improve the appearance of their product.</p>	<p>Begin to select tools and materials; use correct vocabulary to name and describe them.</p> <p>With help measure, cut and score with some accuracy.</p> <p>Use hand tools safely and appropriately.</p> <p>Start to assemble, join and combine materials in order to make a product.</p> <p>Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques.</p> <p>Start to choose and use appropriate finishing techniques based on their own ideas.</p>	<p>Select a wider range of tools and techniques for making their product i.e. construction materials and kits, food ingredients and fabrics.</p> <p>Explain their choice of tools and equipment in relation to the skills and techniques they will be using.</p> <p>Measure, mark out, cut, score and assemble components with more accuracy.</p> <p>Work safely and accurately with a range of simple tools</p>	<p>Select a wider range of tools and techniques for making their product safely.</p> <p>Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</p> <p>Join and combine materials and components accurately in temporary and permanent ways.</p> <p>Understand how to reinforce and strengthen a 3D framework. Now sew using a range of different stitches.</p>	<p>Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p>Aim to make and to achieve a quality product. With confidence, pin, sew and stitch materials together to create a product.</p> <p>Begin to measure and mark out more accurately.</p> <p>Demonstrate how to use skills in using different tools and equipment safely and accurately.</p> <p>With growing confidence cut and join with accuracy to ensure a good-quality finish to the product</p> <p>Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</p>	<p>Confidently select appropriate tools, materials, components and techniques and use them.</p> <p>Use tools safely and accurately. Assemble components to make working models.</p> <p>Demonstrate making modifications as they go along.</p> <p>Construct products using permanent joining techniques.</p> <p>Weigh and measure accurately (time, dry ingredients, liquids).</p> <p>Know how to reinforce and strengthen a 3D framework.</p> <p>Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</p>



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<p>Evaluate</p>	<p>Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria).</p> <p>When looking at existing products explain what they like and dislike about Products and why.</p> <p>Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make.</p>	<p>Evaluate their work against their design criteria.</p> <p>Look at a range of existing products and explain what they like and dislike about Products and why.</p> <p>Start to evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> <p>With confidence talk about their ideas, saying what they like and dislike about them.</p>	<p>Start to evaluate their product against original design criteria e.g. how well it meets its intended purpose</p> <p>Begin to disassemble and evaluate familiar products and consider the views of others to improve them.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>	<p>Evaluate their products carrying out appropriate tests.</p> <p>Start to evaluate their work both during and at the end of the project.</p> <p>Consider the views of others to improve their work</p> <p>Be able to disassemble and evaluate familiar products and consider the views of others to improve them.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>	<p>Start to evaluate a product against the original design specification and by carrying out tests.</p> <p>Evaluate their work both during and at the end of the assignment.</p> <p>Consider the views of others to improve their work</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>	<p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests.</p> <p>Evaluate their work both during and at the end of the assignment.</p> <p>Consider the views of others to improve their work</p> <p>Record their evaluations using drawings with labels.</p> <p>Evaluate against their original criteria and suggest ways that their product could be improved.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>
<p>Technical Knowledge</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</p>	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p> <p>Understand and use electrical systems in their products [for example, series circuits</p>	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</p>	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</p>

				incorporating switches, bulbs, buzzers and motors].		Apply their understanding of computing to program, monitor and control their products.
Food and Nutrition	<p>Understand that all food comes from plants or animals.</p> <p>Begin to understand that everyone should eat at least five portions of fruit and vegetables every day.</p> <p>Know how to prepare simple dishes safely and hygienically, without using a heat source.</p> <p>Know how to use techniques such as cutting, peeling and grating (fruit salad /smoothie).</p>	<p>Know that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Understand how to name and sort foods into the five groups in 'The Eat Well Plate'</p> <p>Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.</p> <p>Demonstrate how to use techniques such as cutting, spreading, arranging and combining (sandwiches)</p>	<p>Start to know that food is grown (such as tomatoes, wheat and potatoes), in the UK.</p> <p>With help prepare and cook a savoury dish safely and hygienically including, the use of a heat source. (Vegetable soup)</p> <p>Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing and boiling</p> <p>Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat Well Plate'</p>	<p>Understand 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,</p> <p>Understand how to prepare and cook a savoury dish safely and hygienically including the use of a heat source (crumpet, pizza).</p> <p>Know how to use a range of techniques such as peeling, chopping, slicing, grating and grilling.</p> <p>Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat Well Plate'</p> <p>Know that to be active and healthy, food and drink are needed to provide energy for the body.</p>	<p>Understand 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</p> <p>Begin to understand that seasons may affect the food available.</p> <p>Understand how food is processed into ingredients that can be eaten or used in cooking.</p> <p>Understand how to use a range of techniques such, kneading and baking. (bread).</p> <p>Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</p>	<p>Know that food is grown in the UK, Europe and the wider world.</p> <p>Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, and baking. (healthy food bar)</p> <p>Know different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</p>