



DESIGN AND TECHNOLOGY PROGRESSION MAP OF SKILLS AND KNOWLEDGE AT BISHOPS ITCHINGTON PRIMARY SCHOOL

	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Developing, planning and communicating ideas.</p> <p>Develop their own ideas through selecting and using materials and working on processes that interest them.</p> <p>Through their explorations, they find out and make decision about how media and materials can be combined and changed.</p> <p>They represent their own ideas, thoughts and feelings through design and technology.</p> <p>Children use what they have learnt about media thinking about uses and purpose.</p>	<p>A - Draw on their own experience to help generate ideas.</p> <p>B - Understand the purpose for what they intend to design and make.</p> <p>C - Suggest ideas and explain what they are going to do.</p> <p>D – Make simple design drawings and label parts</p> <p>E - Model their ideas on paper.</p>	<p>A - Generate ideas by drawing on their own and other people's experiences.</p> <p>B - Identify a purpose for what they intend to design and make.</p> <p>C - Develop their design ideas through discussion, observation, drawing and modelling.</p> <p>D - Make design drawings and label parts.</p> <p>E – Make a simple template on paper</p>	<p>A - Generate ideas for an item, considering its purpose and the user/s.</p> <p>B – During the planning stage evaluate known products to identify a purpose and establish criteria for a successful product.</p> <p>C - Develop their design by planning their work before starting.</p> <p>D- Make diagrams with labels and begin to draw from different viewpoints.</p> <p>E – Make paper templates and prototypes (stable structures)</p>	<p>A - Generate ideas, considering the purposes for which they are designing.</p> <p>B - During the planning stage research and evaluate known products and identify criteria that can be used for their own designs.</p> <p>C - Develop a clear idea of what has to be done, planning how to use materials, equipment and processes,</p> <p>D- Make annotated drawings from different viewpoints.</p> <p>E – Make moving paper templates and prototypes of design (Levers and linkages)</p>	<p>A - Generate ideas through brainstorming and identify a purpose for their product.</p> <p>B - During the planning stage research and evaluate either known products, investigations or information sources to create their own criteria</p> <p>C - 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>D- Make annotated diagrams from different views showing specific features, cross-sections and exploded illustrations</p> <p>E – Make paper templates, patterns and prototypes of design (textiles and structures)</p>	<p>A - generate ideas and identify a purpose for functional products that will appeal to the intended audience.</p> <p>B - During the planning stage research and evaluate either known products, investigations or information sources including ICT when developing design ideas and creating their own design criteria.</p> <p>C - 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 and by modelling their ideas in a variety of ways.</p> <p>D - Communicate their ideas through detailed labelled drawings using different viewpoints when appropriate</p> <p>E – Make paper templates, patterns and prototypes of design (textiles and structures)</p>	

<p>Working with tools, equipment, materials and components to make quality products (inc-food)</p>	<p>A - Handles tools, construction and malleable materials with increasing control.</p> <p>B - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>A - Use tools <i>eg scissors and a hole punch</i> safely.</p> <p>B - Use hand tools safely and appropriately.</p> <p>C - With help measure, mark out, cut and shape a range of materials.</p> <p>D - Assemble, join and combine materials together using a variety of temporary methods e.g. glues or masking tape. E - Use simple finishing techniques to improve the appearance of their product.</p>	<p>A - Begin to select tools and materials; use vocabulary to name and describe them.</p> <p>B - Use hand tools safely and appropriately.</p> <p>C - Measure, cut and score with some accuracy.</p> <p>D - Assemble, join and combine materials in order to make a product.</p> <p>E - Use finishing techniques to improve the appearance of their product.</p>	<p>A - Select tools and equipment for making their product</p> <p>B - Work safely and accurately with a range of simple tools</p> <p>C - Measure, mark out, cut, score and assemble components with more accuracy</p> <p>D - Join and combine materials and components accurately in temporary and permanent ways E - Use finishing techniques strengthen and improve the appearance of their product</p>	<p>A - Select appropriate tools and equipment for making their product</p> <p>B - Work safely and accurately with an increasing range of tools</p> <p>C - Measure, mark out, cut, score and assemble components with accuracy</p> <p>D - Join and combine materials and components accurately in temporary and permanent ways E - Use finishing techniques strengthen and improve the appearance of their product</p>	<p>A - Select appropriate tools, components and equipment for making their product</p> <p>B - Use skills in using different tools and equipment safely and accurately</p> <p>C - Measure, mark out, cut, score, pin and assemble components with increased accuracy</p> <p>Weigh and measure accurately (time, dry ingredients, liquids)</p> <p>D - Cut and join with accuracy to ensure a good-quality finish to the product</p> <p>E - Use finishing techniques strengthen and improve the appearance of their product</p>	<p>A - Select appropriate tools, components and equipment for making their product understanding each of their strengths and limitations</p> <p>B - Use skills in using different tools and equipment safely, accurately and understand how to look after them correctly.</p> <p>C - Measure, mark out, cut, score, pin and assemble components with increased accuracy and precision Weigh and measure accurately (time, dry ingredients, liquids)</p> <p>D - Construct products using permanent joining techniques to ensure aesthetically pleasing products</p> <p>E - Use finishing techniques strengthen and improve the appearance of their product</p>
<p>using a range of equipment including ICT.</p>							
<p>Evaluating processes and products</p>	<p>Children use what they have learnt about media and materials in original ways thinking about uses and purposes.</p>	<p>Evaluate their product by discussing how well it works in relation to the purpose.</p> <p>Evaluate known products talking about what they like and dislike about them.</p>	<p>Evaluate against their design criteria.</p> <p>Evaluate known products talking about what they like and dislike about them and possible changes they might make.</p>	<p>Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose.</i></p>	<p>Evaluate their work both during and at the end of the assignment</p>	<p>Evaluate their product both during and at the end of the assignment against the original design specification</p>	<p>Evaluate their product both during and at the end of the assignment against the original design specification</p> <p>Record their evaluations using drawings with labels</p>

				Suggest ways that their product could be improved	Suggest ways that their product could be improved	Suggest ways that their product could be improved	Suggest ways that their product could be improved
Understand how key events and individuals in design and technology have helped shape the world							
Sewing			<p>Cut and join fabric with support.</p> <p>Use basic sewing techniques.</p> <p>Use scissors and needles safely</p> <p>Weave using different materials (paper, ribbon, thread)</p> <p>Sew a button onto fabric</p>		<p>Cut and join fabric</p> <p>To use different stitches, running, back, over.</p> <p>Use equipment safely; scissors, needles, pins, needle threaders.</p>	<p>Cut and join paper templates.</p> <p>Pin templates to fabric and cut with increasing precision and accuracy</p> <p>Join fabric using different stitches; running, back, over, blanket, French knot.</p> <p>Join fabric using different methods; needle work, sewing machine.</p> <p>Use equipment safely; scissors, needles, pins, needle threaders, sewing machine.</p>	
Cooking and Nutrition		<p>Understand what makes a healthy and varied diet</p> <p>Understand where food comes from.</p> <p>Select from and use a wide range of components, including utensils and ingredients, according to their characteristics</p> <p>Select from and use a range of tools and equipment to perform</p>		<p>Understand the principles of a healthy and varied diet</p> <p>Prepare a savoury dish using a range of techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown.</p> <p>Use a wider range of tools and equipment to perform practical tasks</p>		<p>Understand and apply the principles of a healthy and varied diet</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Focus on food availability linked to rationing.</p> <p>Select and use a wider range of tools and equipment to perform practical tasks (different knives, spoons, bowls) fit for purpose.</p>	

		<p>practical task (knives for cutting)</p> <p>Use basic food handling, hygienic practices and personal hygiene.</p>		<p>(different knives, spoons, bowls)</p> <p>Use basic food handling, hygienic practices and personal hygiene.</p>		<p>Understand the need to use basic food handling, hygienic practices and personal hygiene.</p> <p>Apply the rules for basic food hygiene and other safe practices <i>e.g. hazards relating to the use of ovens</i></p>
Technical knowledge		<p>Explore and use mechanisms [for example, levers, sliders, wheels], in their products.</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable</p>	<p>Understand and use mechanical systems in their products (levers and linkages)</p> <p>Understand and use simple electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>♣ apply their understanding of computing to program, monitor and control 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 (gears, pulleys, cams)</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 computing to program, monitor and control their products.</p>