



# Sir Alexander Fleming Primary School

## Design and Technology Curriculum Progression

	EYFS	KS1		KS2			
Substantive Knowledge		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>Choose the resources they need for their chosen activities.</p> <p>Handle equipment and tools effectively.</p> <p>Know the importance for good health of a healthy diet.</p>	<p>Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</p> <p>Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The eat well plate.</p> <p>Know how to make freestanding structures stronger, stiffer and more stable.</p> <p>Explore and use sliders and levers.</p> <p>Understand that different mechanisms produce different types of movement.</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</p> <p>Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The eat well plate.</p> <p>Understand how simple 3-D textile products are made, using a template to create two identical shapes.</p> <p>Understand how to join fabrics using different techniques</p> <p>Explore different finishing techniques</p> <p>Explore and use wheels,</p>	<p>Know how to use appropriate equipment and utensils to prepare and combine food.</p> <p>Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.</p> <p>Understand and use lever and linkage mechanisms.</p> <p>Distinguish between fixed and loose pivots.</p> <p>Develop and use knowledge of how to construct strong, stiff structures.</p>	<p>Know how to use appropriate equipment and utensils to prepare and combine food.</p> <p>Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.</p> <p>Develop and use knowledge of how to construct strong, stiff structures.</p> <p>Develop and use knowledge of nets of cubes and cuboids and, where appropriate,</p>	<p>Know how to use utensils and equipment including heat sources to prepare and cook food.</p> <p>Understand about seasonality in relation to food products and the source of different food products.</p> <p>Understand how to strengthen, stiffen and reinforce 3-D frameworks.</p> <p>Know and use technical vocabulary relevant to the project.</p> <p>Apply their understanding of computing to program and control their products.</p>	<p>Know how to use utensils and equipment including heat sources to prepare and cook food.</p> <p>Understand about seasonality in relation to food products and the source of different food products.</p> <p>Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</p> <p>Understand how fabrics can be strengthened, stiffened and reinforced where appropriate.</p>

			<p>axles and axle holders.</p> <p>Distinguish between fixed and freely moving axles</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Know how to make freestanding structures more stable</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>more complex 3D shapes.</p> <p>Know how to strengthen, stiffen and reinforce existing fabrics.</p> <p>Understand how to securely join two pieces of fabric together.</p> <p>Understand the need for patterns and seam allowances.</p> <p>Understand and use electrical systems in their products linked to science coverage.</p> <p>now and use relevant technical and sensory vocabulary appropriately.</p>		<p>Understand that mechanical and electrical systems have an input, process and an output.</p> <p>Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.</p> <p>Know and use technical vocabulary relevant to the project.</p>
Disciplinary Knowledge and skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, planning and communicating ideas.	<p>Create simple representations of objects.</p> <p>Use what they have learnt about materials in original ways, thinking about uses and purposes.</p>	<p>Draw on their own experience to help generate ideas.</p> <p>Suggest ideas and explain what they are going to do. Identify a target group for what</p>	<p>Generate ideas by drawing on their own and other people's experiences.</p> <p>Develop their design ideas through discussion, observation,</p>	<p>Generate ideas for an item, considering its purpose and the user/s.</p> <p>Identify a purpose and</p>	<p>Generate ideas, considering the purposes for which they are designing.</p> <p>Make labelled</p>	<p>Generate ideas through brainstorming and identify a purpose for their product.</p> <p>Draw up a</p>	<p>Communicate their ideas through detailed labelled drawings.</p> <p>Develop a design specification.</p>

	<p>Represent their own ideas and thoughts.</p>	<p>they intend to design and make. Model their ideas in card and paper. Develop their design ideas applying findings from their earlier research.</p>	<p>drawing and modelling. Identify a purpose for what they intend to design and make. Identify simple design criteria. Make simple drawings and label parts.</p>	<p>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.</p>	<p>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.</p>	<p>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 ideas.</p>	<p>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.</p>
<p>Working with tools, equipment, materials and components to make quality products (inc food).</p>	<p>Safely use and explore a variety of materials, tools and techniques, experimenting with design, texture, form and function.</p>	<p>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</p>	<p>Begin to select tools and materials; use vocabulary 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 product. Use basic sewing</p>	<p>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</p>	<p>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</p>	<p>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,</p>	<p>Select appropriate tools, materials, components and techniques. Assemble components make working models. Use tools safely and accurately. Construct products using permanent joining techniques. Make</p>

		<p>appropriate fruit and vegetables, processes and tools.</p> <p>Use basic food handling, hygienic practices and personal hygiene.</p> <p>Use simple finishing techniques to improve the appearance of their product.</p>	<p>techniques.</p> <p>Follow safe procedures for food safety and hygiene.</p> <p>Choose and use appropriate finishing techniques.</p>	<p>willing change things if this helps them improve their work. Measure, tape or pin, cut and join fabric with some accuracy.</p> <p>Demonstrate hygienic food preparation and storage.</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT.</p>	<p>components accurately in temporary and permanent ways. Sew using a range of different stitches, weave and knit.</p> <p>Measure, tape or pin, cut and join fabric with some accuracy. Use simple graphical communication techniques.</p>	<p>liquids). Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens.</p> <p>Cut and join with accuracy to ensure a good-quality finish to the product.</p>	<p>modifications as they go along. Pin, sew and stitch materials together create a product. Achieve a quality finish.</p>
<p>Evaluating processes and products.</p>	<p>Share creations explaining processes used.</p>	<p>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.</p>	<p>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.</p>	<p>Evaluate their product against original design criteria e.g. how well it meets its intended purpose. Disassemble and evaluate familiar products.</p>	<p>Evaluate and disassemble existing products. Evaluate their work both during and at the end of the assignment. Evaluate their products carrying out appropriate tests.</p>	<p>Evaluate a range of existing product against the original design specification. Maintain ongoing evaluation of their own product as it is being made and make the necessary changes. Evaluate it personally and seek evaluation from others.</p>	<p>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.</p>

<p>Vocabulary</p>	<p>Pulley, texture, drawing tools, tools, product, structure, design, product.</p>	<p>Design, product, model, equipment, evaluate, peel, cut, grate, mix, mould, mock –up, levers, sliders, wheels, axils, cut, join, sew, drawing tools ingredient.</p>	<p>Design brief, design proposal, modify, product, analysis, template, equipment, tools, labelled diagram, develop, measure, mark out, join, assemble, materials components, peel, fastening, seam, patterns, cut, grate, mix, mould appearance.</p>	<p>Refine, measure, mark out, cut, join, assemble, component, market research, aesthetics, evaluate, pin, tack, seam allowance, annotated diagram, customer survey, disassembly exploded drawing, prototype.</p>
-------------------	--	---	--	--