

STANBRIDGE LOWER SCHOOL

Design Technology - Progression in skills and knowledge

	Year 1	Year 2	Year 3	Year 4
Design Items	A boat which floats A bird that can move across the sky	A glove puppet A moving car	A Roman shield A kite	An Egyptian mask or pyramid An Anderson shelter A pulley and gear system
Technical Knowledge/Skills	Lever, sliders, building structures, stronger, stiffer, more stable Cutting, shaping, joining, finishing	Wheels, axles, stitching, drawing, templates, mock ups, using a needle and thread	Strengthen, stiffen and reinforce, annotated sketches, pattern pieces, design boards	Structure, form, gears, pulleys, cams and levers, cross sectional diagrams, prototypes and design boards.
Developing, planning and communicating ideas	<p>Begin to draw on 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, 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>Complete a simple design board.</p>	<p>Generate ideas by drawing on their own and other people's experiences.</p> <p>Begin to develop their 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 .</p> <p>Develop their ideas through talk and drawings and label parts.</p> <p>Complete a simple design board.</p>	<p>Generate ideas for an item, considering its purpose and the user/s.</p> <p>Start out and order the main stage of making a product, 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>Know how to make drawing with labels when designing.</p> <p>When planning explain their choice of materials and components including function and aesthetics .</p> <p>Make templates and mock ups of their ideas in card, paper or using ICT.</p> <p>Complete a more complex design board using above features.</p>	<p>Generate ideas, considering the purpose for which they are designing.</p> <p>Label drawings from different views using cross sectional diagrams.</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. Identify strengths and areas for development in their ideas and products.</p> <p>When planning consider the views of others in order to improve their work When planning explain their choice of materials and components including function and aesthetics .</p> <p>Complete a more complex design board using above features.</p>

<p>Working with tools, equipment, materials and component's</p>	<p>Make their design using appropriate techniques.</p> <p>Build structures exploring how they can be made stronger, stiffer and more stable.</p> <p>Explore and use sliders in their products.</p> <p>With help measure, mark and cut out and shape a range of materials</p> <p>Explore using tools eg scissors and hole punches safely</p> <p>Assemble, join and combine materials and components together using a variety of methods eg glues, tape, staples etc.</p> <p>Use simple techniques to finish and improve their product.</p>	<p>Select tools and materials use correct vocabulary to name and describe them.</p> <p>Build structures; using templates, drawings and mock ups. Learn how to use a needle and thread safely.</p> <p>With help measure, cut and score. Use hand tools safely.</p> <p>Assemble, join and combine materials 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>Choose and use appropriate finishing techniques based on their own ideas.</p>	<p>Select and use a wider range of tools and techniques for making their product, explaining 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>Think about their ideas as they make progress and be willing to change things if this helps them to improve their work</p> <p>Measure, tape or pin, cut and join fabrics with accuracy.</p>	<p>Select and use a wider range of tools and techniques for making their product, explaining 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>Join and combine materials and components accurately in temporary and permanent ways.</p> <p>Know how mechanical systems such as cams, pulleys, gears and levers create movement.</p> <p>Understand how to reinforce and strengthen as 3D framework..</p> <p>Measure, tape or pin, cut and join fabrics with accuracy.</p>
<p>Evaluating Processes and Products</p>	<p>Evaluate their product by discussing how well it works in relation to the purpose.</p> <p>When looking at existing products explain what they like and dislike about products and why,</p> <p>Evaluate their finished product.</p>	<p>Evaluate their work against the design criteria.</p> <p>Look at a range of existing products explain what they like and dislike about products and why.</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> <p>Talk about their ideas, saying what they like and dislike about them.</p>	<p>Evaluate their products as they are developed, identifying strengths and possible changes they might make to processes, products, materials and tools.</p> <p>Evaluate their product against original design and identify how well it met its intended purpose.</p>	<p>Evaluate their products as they are developed, identifying strengths and possible changes they might make to processes, products, materials and tools.</p> <p>Evaluate their product against original design and identify how well it met its intended purpose.</p>