



**ASSESSMENT END POINTS
DESIGN & TECHNOLOGY**

By the end of ...	End Points	Curriculum Links
Year 1	<p>Designing</p> <ul style="list-style-type: none"> ✓ Use own experience to help generate ideas to design something. ✓ Describe how their own idea works. ✓ Use pictures and words to show what they want to design/make. ✓ Model own ideas in card and paper. ✓ Say who they intend to design and make something for. <p>Making</p> <ul style="list-style-type: none"> ✓ Select materials from a limited range. ✓ Explain what they are making. ✓ Name the tools they are using. ✓ With help, measure, mark out, cut and shape a range of materials. ✓ Join materials and components together using a range of methods – glues, masking tapes. <p>Evaluating</p> <ul style="list-style-type: none"> ✓ Explore existing products and describe how something works/has been made. ✓ Explain what works well and not so well in the model they have made. ✓ Say what they like and dislike about items they have made and attempt to say why. <p>Technical Knowledge (taught over a rolling 2 year cycle)</p> <p>Mechanisms</p> <ul style="list-style-type: none"> ✓ Explore and use wheels, axles and axle holders. ✓ Distinguish between fixed and free moving axles. ✓ Experiment with levers and sliders to find different ways of making things move. ✓ Know that different mechanisms produce different types of movement. <p>Structures</p> <ul style="list-style-type: none"> ✓ Construct a free-standing structure. ✓ Explore how to make structures stronger, stiffer and more stable. <p>Textiles</p> <ul style="list-style-type: none"> ✓ Understand how simple 3D textile products are made using a template to create 2 identical shapes. ✓ Know how to join fabrics using different techniques – running stitch, over stitch, glue, stapling. ✓ Explore different finishing techniques – fabric crayons/paint, stitching – sequins, buttons, ribbons. <p>Food Technology</p> <ul style="list-style-type: none"> ✓ Know that all food comes from plants and animals. ✓ Begin to understand what is meant by a healthy diet. ✓ Prepare simple dishes without a heat source. ✓ Know how to use techniques such as cutting, chopping, slicing, grating. ✓ Know and use technical and sensory vocabulary relevant to the project. 	<p>POAP Plans</p> <p>Mechanisms – Wheels and Axles</p> <p>Mechanisms – Sliders and Levers</p> <p>Structures – Freestanding Structures</p> <p>Textiles – Templates and Joining Techniques</p> <p>Food – Preparing Fruits and Vegetables</p>

Year 2	<p>Designing</p> <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. ✓ Plan what to do next. <p>Making</p> <ul style="list-style-type: none"> ✓ Choose tools and materials, explain why they have chosen them and use vocabulary to name and describe them. ✓ Join materials and components in different ways. ✓ Measure, cut and score materials with some accuracy. ✓ Use simple finishing techniques to improve the appearance of their products. <p>Evaluating</p> <ul style="list-style-type: none"> ✓ Evaluate products against their design criteria. ✓ Explain what went well with their work. ✓ Identify strengths and weaknesses. <p>Technical Knowledge (taught over a rolling 2 year cycle)</p>	<p>POAP Plans</p>
	<p>Mechanisms</p> <ul style="list-style-type: none"> ✓ Explore and use wheels, axles and axle holders. ✓ Distinguish between fixed and free moving axles. ✓ Experiment with levers and sliders to find different ways of making things move. ✓ Know that different mechanisms produce different types of movement. 	<p>Mechanisms – Wheels and Axles Mechanisms – Sliders and Levers</p>
	<p>Structures</p> <ul style="list-style-type: none"> ✓ Construct a free-standing structure. ✓ Explore how to make structures stronger, stiffer and more stable. 	<p>Structures – Freestanding Structures</p>
	<p>Textiles</p> <ul style="list-style-type: none"> ✓ Understand how simple 3D textile products are made using a template to create 2 identical shapes. ✓ Cut, shape and join fabric to make simple products. ✓ Know how to join fabrics using different techniques – running stitch, over stitch, glue, stapling. ✓ Explore different finishing techniques – fabric crayons/paint, stitching – sequins, buttons, ribbons. 	<p>Textiles – Templates and Joining Techniques</p>
	<p>Food Technology</p> <ul style="list-style-type: none"> ✓ Know that all food comes from plants and animals. ✓ Begin to understand what is meant by a healthy diet. ✓ Prepare simple dishes without a heat source. ✓ Know how to use techniques such as cutting, chopping, slicing, grating. ✓ Know and use technical and sensory vocabulary relevant to the project. 	<p>Food – Preparing Fruits and Vegetables</p>

Year 3	<p>Designing</p> <ul style="list-style-type: none"> ✓ Develop ideas through the analysis of existing products. ✓ Gather information about the needs and wants of users. ✓ Generate realistic ideas, focusing on the needs of the user. ✓ Describe the purpose of a product. ✓ Make drawings with labels when designing. <p>Making</p> <ul style="list-style-type: none"> ✓ Plan and order the main stages of making. ✓ Select tools and equipment suitable for the task and work safely and with some accuracy. ✓ Select materials and components suitable for the task. ✓ Measure, mark out, cut, score and assemble components with some accuracy. ✓ Assemble, join and combine materials and components with some accuracy. ✓ Use finishing techniques suitable for the product they are creating. ✓ Think about their ideas as they make progress and be willing change things if this helps them improve their work. <p>Evaluating</p> <ul style="list-style-type: none"> ✓ Investigate and evaluate a range of existing products. ✓ Disassemble and evaluate familiar products. ✓ Investigate who designed a product and when they designed it. ✓ Talk about how well products are designed and made. ✓ Refer to their design criteria as they design and make. ✓ Test and evaluate their own products against design criteria and the intended user and purpose. ✓ Identify the strengths and areas for improvement in their work. <p>Technical Knowledge (taught over a rolling 2 year cycle)</p> <p>Mechanisms</p> <ul style="list-style-type: none"> ✓ Understand and use lever and linkage mechanisms. ✓ Distinguish between fixed and loose pivots. ✓ Understand and use pneumatic mechanisms. <p>Structures</p> <ul style="list-style-type: none"> ✓ Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. ✓ Develop and use knowledge of how to construct strong, stiff shell structures. <p>Electrical Systems</p> <ul style="list-style-type: none"> ✓ Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. ✓ Understand and use computing to program and control products containing electrical systems, such as series circuits incorporating switches, bulbs and buzzers. <p>Textiles</p> <ul style="list-style-type: none"> ✓ Know how to strengthen, stiffen and reinforce existing fabrics. ✓ Understand how to securely join two pieces of fabric together. ✓ Understand the need for patterns and seam allowances. <p>Food Technology</p> <ul style="list-style-type: none"> ✓ Know how to use appropriate equipment and utensils to prepare and combine food. ✓ Know about a range of fresh and processed ingredients appropriate for their product. ✓ Know whether foods are grown, reared or caught. ✓ Know and use relevant technical and sensory vocabulary appropriately to each topic. 	<p>POAP Plans –</p> <p>Mechanical Systems – Levers & Linkages</p> <p>Mechanical Systems – Pneumatics</p> <p>Structures – Shell Structures</p> <p>Electrical Systems – Simple circuits and switches</p> <p>Textiles – 2-D shape to 3-D product</p> <p>Food – Healthy and varied diet</p>
-------------------	---	---

Year 4	<p>Designing</p> <ul style="list-style-type: none"> ✓ Generate ideas, considering the purposes for which they are designing. ✓ Indicate the design features that will appeal to the intended user. ✓ 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. ✓ Make design decisions that take into account the availability of resources. ✓ Begin to take into consideration constraints of time, resources and cost. ✓ Produce annotated sketches, prototypes, final product sketches and pattern pieces. 	<p>POAP Plans –</p> <p style="background-color: #fff3cd;">Mechanical Systems – Levers & Linkages</p> <p style="background-color: #d4edda;">Mechanical Systems – Pneumatics</p> <p style="background-color: #d4edda;">Structures – Shell Structures</p> <p style="background-color: #d4edda;">Electrical Systems – Simple circuits and switches</p> <p style="background-color: #d4edda;">Textiles – 2-D shape to 3-D product</p> <p style="background-color: #fff3cd;">Food – Healthy and varied diet</p>
	<p>Making</p> <ul style="list-style-type: none"> ✓ Begin to make a list of appropriate materials they will need. ✓ Explain their choice of materials and components according to functional properties and aesthetic qualities. ✓ Use a range of construction materials, kits, mechanical and electrical components. ✓ Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques with increasing accuracy. ✓ Assemble, join and combine materials and components in temporary and permanent ways with increasing accuracy. 	
	<p>Evaluating</p> <ul style="list-style-type: none"> ✓ Evaluate products and identify criteria that can be used for their own designs. ✓ Use their design criteria to evaluate a completed product. ✓ Begin to critically evaluate an end product. ✓ Investigate who designed a product, when and where they designed it. ✓ Investigate whether a product can be reused or recycled. 	
	<p>Technical Knowledge (taught over a rolling 2 year cycle)</p> <p style="background-color: #fff3cd;">Mechanisms</p> <ul style="list-style-type: none"> ✓ Understand and use lever and linkage mechanisms. ✓ Distinguish between fixed and loose pivots. ✓ Understand and use pneumatic mechanisms. 	
	<p style="background-color: #d4edda;">Structures</p> <ul style="list-style-type: none"> ✓ Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. ✓ Develop and use knowledge of how to construct strong, stiff shell structures. 	
	<p style="background-color: #d4edda;">Electrical Systems</p> <ul style="list-style-type: none"> ✓ Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. ✓ Understand and use computing to program and control products containing electrical systems, such as series circuits incorporating switches, bulbs and buzzers. 	
	<p style="background-color: #d4edda;">Textiles</p> <ul style="list-style-type: none"> ✓ Know how to strengthen, stiffen and reinforce existing fabrics. ✓ Understand how to securely join two pieces of fabric together. ✓ Understand the need for patterns and seam allowances. 	
	<p style="background-color: #fff3cd;">Food Technology</p> <ul style="list-style-type: none"> ✓ Know how to use appropriate equipment and utensils to prepare and combine food. ✓ Know about a range of fresh and processed ingredients appropriate for their product. ✓ Know whether foods are grown, reared or caught. ✓ Know and use relevant technical and sensory vocabulary appropriately to each topic. 	

Year 5	<p>Designing</p> <ul style="list-style-type: none"> ✓ Gather information about the needs and wants of users using surveys, interviews, questionnaires and web-based resources. ✓ Generate realistic ideas, focusing on the needs of the user. ✓ Describe the purpose of a product. ✓ Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> ✓ Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. ✓ Order the main stages of making. ✓ Select appropriate tools and techniques and explain why they are being used. ✓ Select materials and components suitable for the task. ✓ Measure, mark out, cut and shape materials with accuracy. ✓ Assemble, join and combine materials and components with accuracy. ✓ Use skills in using different tools and equipment safely and accurately ✓ Weigh and measure accurately (time, dry ingredients, liquids). <p>Evaluating</p> <ul style="list-style-type: none"> ✓ Investigate and analyse existing products. ✓ Compare and evaluate a product against the original design criteria. ✓ Investigate who designed a product and when they designed it. ✓ Evaluate products personally and seek evaluation from others. <p>Technical Knowledge (taught over a rolling 2 year cycle)</p> <p>Mechanisms</p> <ul style="list-style-type: none"> ✓ Understand that mechanical and electrical systems have an input, process and an output. ✓ Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. ✓ Understand how cams can be used to produce different types of movement and change the direction of movement. <p>Structures</p> <ul style="list-style-type: none"> ✓ Understand how to strengthen, stiffen and reinforce 3-D frameworks. <p>Electrical Systems</p> <ul style="list-style-type: none"> ✓ Understand and use electrical systems in their products. ✓ Understand the use of computer control systems in products. ✓ Apply their understanding of computing to program, monitor and control their products. <p>Textiles</p> <ul style="list-style-type: none"> ✓ Know that a 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. ✓ Know that fabrics can be strengthened, stiffened and reinforced where appropriate. <p>Food Technology</p> <ul style="list-style-type: none"> ✓ Know how to use utensils and equipment including heat sources to prepare and cook food. ✓ Understand about seasonality in relation to food products and the source of different food products. ✓ Know and use relevant technical and sensory vocabulary appropriately to each topic. 	<p>POAP Plans –</p> <p>Mechanical Systems – Pulleys and Gears</p> <p>Structures – Frame Structures</p> <p>Electrical Systems – More complex switches and circuits</p> <p>Textiles – Combining Fabrics and Shapes</p> <p>Textiles – Using CAD in textiles</p> <p>Food – Celebrating Culture and Seasonality</p>
-------------------	---	--

Year 6	<p>Designing</p> <ul style="list-style-type: none"> ✓ Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. ✓ Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple 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. <p>Making</p> <ul style="list-style-type: none"> ✓ Select appropriate tools, materials, components and techniques. ✓ Assemble, join and combine materials and components accurately. ✓ Use a range of construction materials, kits, mechanical and electrical components. ✓ Use tools safely and accurately. <p>Evaluating</p> <ul style="list-style-type: none"> ✓ Evaluate their products against their original design criteria, intended user and purpose. ✓ Identify strengths and areas for development, and suggest ways that their product could be improve. ✓ Record their evaluations using drawings with labels ✓ Investigate inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. <p>Technical Knowledge (taught over a rolling 2 year cycle)</p>	<p>POAP Plans –</p>
	<p>Mechanisms</p> <ul style="list-style-type: none"> ✓ Understand that mechanical and electrical systems have an input, process and an output. ✓ Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. ✓ Understand how cams can be used to produce different types of movement and change the direction of movement. 	<p>Mechanical Systems – Pulleys and Gears</p>
	<p>Structures</p> <ul style="list-style-type: none"> ✓ Understand how to strengthen, stiffen and reinforce 3-D frameworks. 	<p>Structures – Frame Structures</p>
	<p>Electrical Systems</p> <ul style="list-style-type: none"> ✓ Understand and use electrical systems in their products. ✓ Understand the use of computer control systems in products. ✓ Apply their understanding of computing to program, monitor and control their products. 	<p>Electrical Systems – More complex switches and circuits</p>
	<p>Textiles</p> <ul style="list-style-type: none"> ✓ Know that a 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. ✓ Know that fabrics can be strengthened, stiffened and reinforced where appropriate. 	<p>Textiles – Combining Fabrics and Shapes Textiles – Using CAD in textiles</p>
	<p>Food Technology</p> <ul style="list-style-type: none"> ✓ Know how to use utensils and equipment including heat sources to prepare and cook food. ✓ Understand about seasonality in relation to food products and the source of different food products. ✓ Know and use relevant technical and sensory vocabulary appropriately to each topic. 	<p>Food – Celebrating Culture and Seasonality</p>

