

## Progression in Design and Technology Knowledge and Skills

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Theme	<b>Heroes and Villains Welcome to the Big Top The Great Post Office Mystery</b>	<b>Great Fire of London Ahoy there Great British Seaside</b>	<b>Contrasting locations/ Chocolate Story Teller Victorian Life</b>	<b>Castles Beneath the Ocean Greek Myths</b>	<b>The Romans Rainforests Space: The last Frontier</b>	<b>World War Two Civil Rights Spies</b>
Skills						
<b>DESIGN</b> Developing, planning and communicating ideas.	<ul style="list-style-type: none"> <li>- Draw on their own experience to help generate ideas.</li> <li>- Identify a target group for what they intend to design and make. <i>Eg For Circus Hall Display</i></li> <li>- Suggest ideas and explain what they are going to do.</li> <li>- Model their ideas in card and paper. <i>Eg Paper puppets before using felt</i></li> <li>- Develop their design ideas applying findings from their earlier research.</li> </ul>	<ul style="list-style-type: none"> <li>- Generate ideas by drawing on their own and other people's experiences.</li> <li>- Identify a purpose for what they intend to design and make. <i>Eg For Tudor Hall Display</i></li> <li>- Identify simple design criteria. <i>Eg Picnic must include so many fruit and veg</i></li> <li>- Develop their design ideas through discussion, observation, drawing and modelling.</li> <li>- Make simple drawings and label parts.</li> </ul>	<ul style="list-style-type: none"> <li>- Generate ideas for an item, considering its purpose and the user/s.</li> <li>- Identify a purpose and establish criteria for a successful product. <i>Eg Pop up books for KS1, New sweet / health bar wrapper aimed at KS 2 or parents</i></li> <li>- Plan the order of their work before starting. <i>Eg Flow diagrams</i></li> <li>- Explore, develop and communicate design proposals by modelling ideas. <i>Eg Rehearsing different pop up mechanisms, On going display to show progression</i></li> <li>- Make drawings with labels when designing. <i>Eg annotated wrapper designs</i></li> </ul>	<ul style="list-style-type: none"> <li>- Generate ideas, considering the purposes for which they are designing.</li> <li>- Make labelled drawings from different views showing specific features. <i>Eg Of pulley drawbridge mechanism</i></li> <li>- Develop a clear idea of what must be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail. <i>Eg Annotated diagrams of alternative methods of attachment</i></li> <li>- Evaluate products and identify criteria</li> </ul>	<ul style="list-style-type: none"> <li>- Generate ideas through brainstorming and identify a purpose for their product.</li> <li>- Draw up a specification for their design. <i>Eg Moon buggy which must travel over rough terrain or Cam Toy Specifications to include size, mechanism, distance to travel, finish</i></li> <li>- Develop a clear idea of what must be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail. <i>Eg Flow charts and annotated diagrams of alternative methods of attachment</i></li> </ul>	<ul style="list-style-type: none"> <li>- Communicate their ideas through detailed labelled drawings.</li> <li>- Develop a design specification. <i>Eg Air-raid shelter model which will withstand a particular weight and made to a specific size</i></li> <li>- Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways. <i>Eg Paper / card model of air raid shelter</i></li> <li>- Plan the order of their work, choosing appropriate materials, tools and techniques.</li> </ul>

				<p>that can be used for their own designs.  <i>Eg Look at pictures of model castles. What is successful? Why? What could be improved?</i>  <i>Create own criteria about size, features to be included, finish etc</i></p>	<p>- Use results of investigations, information sources, including ICT when developing design ideas.  <i>Eg Investigate movement created by different CAM shapes</i></p>	
<p><b>MAKE</b>  Working with tools, equipment, materials and components to make quality products (including food)</p>	<ul style="list-style-type: none"> <li>- Make their design using appropriate techniques.</li> <li>- With help measure, mark out, cut and shape a range of materials.  <i>Eg Cut straws to the same size for Big Top</i>  <i>Mark and cut out shape for Finger Puppet</i></li> <li>- Use tools e.g. scissors and a hole punch safely.</li> <li>- Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape.</li> <li>- Select and use appropriate fruit and vegetables, processes and tools.</li> </ul>	<ul style="list-style-type: none"> <li>- Begin to select tools and materials; use vocab' to name and describe them.</li> <li>- Measure, cut and score with some accuracy.</li> <li>- Use hand tools safely and appropriately.</li> <li>- Assemble, join and combine materials in order to make a product.  <i>Eg Attach boxes and card pieces</i></li> <li>- <i>Cut, shape and join fabric to make a simple garment. Use basic sewing techniques.</i></li> <li>- Follow safe procedures for food safety and hygiene.</li> <li>- Choose and use appropriate finishing techniques.</li> </ul>	<ul style="list-style-type: none"> <li>- Select tools and techniques for making their product.</li> <li>- Measure, mark out, cut, score and assemble components with more accuracy.</li> <li>- Work safely and accurately with a range of simple tools.</li> <li>- Think about their ideas as they make progress and be willing change things if this helps them improve their work.</li> <li>- <i>Measure, tape or pin, cut and join fabric with some accuracy.</i></li> <li>- Demonstrate hygienic food preparation and storage.</li> <li>- Use finishing techniques strengthen and improve the appearance of their</li> </ul>	<ul style="list-style-type: none"> <li>- Select appropriate tools and techniques for making their product.</li> <li>- Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</li> <li>- Join and combine materials and components accurately in temporary and permanent ways.  <i>Eg Boxes, card pieces, corrugated card,</i></li> <li>- <i>Sew using a range of different stitches, weave and knit.</i></li> <li>- <i>Measure, tape or pin, cut and join fabric with some accuracy.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Select appropriate materials, tools and techniques.</li> <li>- Measure and mark out accurately.</li> <li>- Use skills in using different tools and equipment safely and accurately.</li> <li>- Weigh and measure accurately (time, dry ingredients, liquids).</li> <li>- Apply the rules for basic food hygiene and other safe practices. e.g. hazards relating to the use of ovens.  <i>Eg Making Products to sell during Save the Rainforest Sale</i></li> <li>- Cut and join with accuracy to ensure a good-quality finish to the product.</li> </ul>	<ul style="list-style-type: none"> <li>- Select appropriate tools, materials, components and techniques</li> <li>- Assemble components make working models</li> <li>- Use tools safely and accurately</li> <li>Construct products using permanent joining techniques  <i>Eg Art straws for shelter construction</i></li> <li>- Make modifications as they go along</li> <li>- <i>Pin, sew and stitch materials together create a product</i>  <i>Achieve a quality product</i></li> </ul>

	<ul style="list-style-type: none"> <li>- Use basic food handling, hygienic practices and personal hygiene.</li> <li>- Use simple finishing techniques to improve the appearance of their product.</li> </ul> <p><i>Eg Add decoration to big Top</i></p>		<p>product using a range of equipment including ICT.</p>	<ul style="list-style-type: none"> <li>- Use simple graphical communication techniques</li> </ul>		
<p><b>EVALUATE</b> Evaluating processes and products</p>	<ul style="list-style-type: none"> <li>- Evaluate their product by discussing how well it works in relation to the purpose.</li> <li>- Evaluate their products as they are developed, identifying strengths and possible changes they might make.</li> <li>- Evaluate their product by asking questions about what they have made and how they have gone about it.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluate against their design criteria.</li> <li>- Evaluate their products as they are developed, identifying strengths and possible changes they might make.</li> </ul> <p><i>Eg Amend Tudor house design, strengthening or adding additional features</i></p> <ul style="list-style-type: none"> <li>- Talk about their ideas, saying what they like and dislike about them.</li> </ul> <p><i>Eg Present final model to the class</i></p>	<ul style="list-style-type: none"> <li>- Evaluate their product against original design criteria e.g. how well it meets its intended purpose.</li> </ul> <p><i>Eg Do Pop up books meet criteria, including design appropriate for young audience?</i></p> <ul style="list-style-type: none"> <li>- Disassemble and evaluate familiar products.</li> </ul> <p><i>Eg Variety of pop up books</i> <i>Different sweet and chocolate bar wrappers</i></p>	<ul style="list-style-type: none"> <li>- Evaluate their work both during and at the end of the assignment.</li> </ul> <p><i>Eg Evaluate caste after the initial construction has been done</i></p> <ul style="list-style-type: none"> <li>- Evaluate their products carrying out appropriate tests.</li> </ul> <p><i>Eg Test drawbridge mechanism</i></p>	<ul style="list-style-type: none"> <li>- Evaluate a product against the original design specification.</li> </ul> <p><i>Eg Moon Buggy size, and movement criteria</i></p> <ul style="list-style-type: none"> <li>- Evaluate it personally and seek evaluation from others.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests.</li> </ul> <p><i>Eg Test strength of bridge by adding weights</i></p> <ul style="list-style-type: none"> <li>- Record their evaluations using drawings with labels</li> </ul> <p><i>Eg Photograph of final product and label</i></p> <ul style="list-style-type: none"> <li>- Evaluate against their original criteria and suggest ways that their product could be improved.</li> </ul>