

Design Technology - Medium term plan			
Year group : Year 5	Topic : Bridges/ Structures		Focus :
<p><b>Design</b></p> <ul style="list-style-type: none"> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li> <li>select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>investigate and analyse a range of existing products</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> </ul> <p><b>Technical Knowledge</b></p> <ul style="list-style-type: none"> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> </ul>			
<p>Prior learning experiences From y4</p> <ul style="list-style-type: none"> <li><b>Design</b> – create a design using design criteria</li> <li><b>Make</b> – make packaging that is fit for purpose</li> <li><b>Evaluate</b> – use the design criteria to evaluate the product, identify areas for improvement and how to improve, both aesthetically and technically</li> <li><b>Evaluate</b> – identify key features of packaging for a range of products</li> </ul> <p><b>Technical knowledge</b> – make structures suitable for the product, use ICT to aid design</p>		<p>Endpoints for y5</p> <ul style="list-style-type: none"> <li><b>Design</b> – create a design using design criteria</li> <li><b>Make</b> – make a bridge bearing in mind what has been learnt, make prototype of a bridge</li> <li><b>Evaluate</b> – use the design criteria to evaluate the product, identify areas for improvement and how to improve, peer asses yours and others work</li> <li><b>Evaluate</b> – identify key features a range of bridges</li> <li><b>Technical knowledge</b> – make structures suitable for the product, use ICT to aid design</li> </ul>	
<p>Sticky vocabulary Design, design criteria, evaluate, pillars, beams, trusses, arches, suspension, prototype</p>			
Design	Make	Evaluate	Technical knowledge

<p>Can start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces.</p> <p>Can begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>Know how to use information sources, including ICT when developing design ideas.</p>	<p>Can select and use appropriate materials e.g. fabric, cardboard, straws, lollipop sticks and tools, e.g. scissors, rulers to measure accurately, according to their functional properties and aesthetic qualities</p> <p>Can select and use a wider range of techniques, e.g. cutting, shaping, joining and finishing</p> <p>Can begin to measure and mark out materials more accurately. • Can pin, sew and stitch materials together to create a product.</p>	<p>Can start to evaluate a product against the original design specification and by carrying out tests.</p> <p>Can evaluate their work both during and at the end of the process and consider the views of others to improve their work.</p>	<p>Can apply their understanding of how to strengthen, stiffen and reinforce more complex structures e.g. bridges.</p>
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