

NMPS: Core Knowledge and skills progression by year group *(Review previously taught skills and layer on new skills introduced in your Year group)*

Design & Technology	Master Practical Skills	Design, Make, Evaluate, Improve	Design Throughout History
EYFS	<ul style="list-style-type: none"> <li>Develop manipulation and control.</li> <li>Explore different materials and tools.</li> <li>Build independently with a range of appropriate resources.</li> <li>Use one-handed tools and equipment, for example, making snips in paper with scissors.</li> <li>Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</li> <li>Use a range of small tools, including scissors, paint brushes and cutlery <b>(ELG PD:FMS)</b></li> </ul> <p>Explore different materials, using all their senses to investigate them.</p> <p>Manipulate and play with different materials.</p> <p>Join different materials and explore different textures.</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function <b>(ELG EAD:CWM)</b></p>	<p>Use their imagination as they consider what they can do with different materials.</p> <p>Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them</p> <p>Make simple models which express their ideas.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources and skills</p> <p>Share their creations, explaining the process they have used <b>(ELG EAD:CWM)</b></p>	
1 Review EYFS skills	<ul style="list-style-type: none"> <li><b>Materials:</b></li> <li><b>1a</b> Cut materials safely, using tools provided;</li> <li><b>1b</b> Measure and mark out to the nearest centimetre;</li> <li><b>1c</b> Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling);</li> <li><b>1d</b> Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen)</li> <li><b>Construction:</b></li> <li><b>1e</b> Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products</li> </ul>	<ul style="list-style-type: none"> <li><b>1f</b> Design products that have a clear purpose and intended use</li> </ul>	<ul style="list-style-type: none"> <li><b>1g</b> Explore objects and designs to identify likes and dislikes of the designs</li> </ul>
2 Review Y1 skills	<ul style="list-style-type: none"> <li><b>Food:</b></li> <li><b>2a</b> Cut, peel or grate ingredients safely and hygienically;</li> <li><b>2b</b> Measure or weigh using measuring cups or electronic scales;</li> <li><b>2c</b> Assemble and cook ingredients</li> <li><b>Textiles:</b></li> <li><b>2d</b> Shape textiles using templates;</li> <li><b>2e</b> Join textiles using a running stitch;</li> <li><b>2f</b> Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing)</li> </ul>	<ul style="list-style-type: none"> <li><b>2g</b> Make products, refining the design as work progresses</li> </ul>	<ul style="list-style-type: none"> <li><b>2h</b> Suggest improvements to existing designs</li> <li><b>2i</b> Explore how products have been created</li> </ul>
3 Review Y2 skills	<ul style="list-style-type: none"> <li><b>Food:</b></li> <li><b>3a</b> Prepare ingredients hygienically, using appropriate utensils;</li> <li><b>3b</b> Measure ingredients to the nearest gram accurately;</li> <li><b>3c</b> Follow a recipe;</li> <li><b>3d</b> Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking)</li> <li><b>Materials:</b></li> <li><b>3e</b> Cut materials accurately and safely by selecting appropriate tools;</li> <li><b>3f</b> Measure and mark out to the nearest millimetre;</li> <li><b>3g</b> Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs);</li> <li><b>3h</b> Select appropriate joining techniques</li> </ul>	<ul style="list-style-type: none"> <li><b>3i</b> Design with purpose by identifying opportunities to design</li> <li><b>3j</b> Make products by working efficiently (such as by carefully selecting materials)</li> </ul>	<ul style="list-style-type: none"> <li><b>3k</b> Identify some of the great designers in other areas of study (including pioneers in horticulture techniques) to generate ideas for designs</li> <li><b>3l</b> Improve upon existing designs, giving reasons for choices</li> </ul>
4 Review Y3 skills	<ul style="list-style-type: none"> <li><b>Textiles:</b></li> <li><b>4a</b> Understand the need for a seam allowance;</li> <li><b>4b</b> Join textiles with appropriate stitching;</li> <li><b>4c</b> Select the most appropriate techniques to decorate textiles</li> <li><b>Construction:</b></li> <li><b>4d</b> Choose suitable techniques to construct products or to repair items;</li> </ul>	<ul style="list-style-type: none"> <li><b>4f</b> Refine work and techniques as work progresses, continually evaluating the product design</li> </ul>	<ul style="list-style-type: none"> <li><b>4g</b> Identify some of the great designers in other areas of study (e.g. Isambard Kingdom Brunel) to generate ideas for designs</li> <li><b>4h</b> Improve upon existing designs, giving reasons for choices</li> </ul>

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	<i>4e Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, glueing, filing and sanding)</i>		
<b>5</b> <b>Review Y3 and Y4 skills</b>	<ul style="list-style-type: none"> <li>● <b>Materials:</b></li> <li><i>5a Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting, or a more precise scissor cut after roughly cutting a shape);</i></li> <li><i>5b Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than those used to cut paper);</i></li> <li>● <b>Mechanics:</b></li> <li><i>5c Create products using levers, wheels and winding mechanisms;</i></li> <li><i>5d Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears); Convert rotary motion to linear motion</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>5e Design with the user in mind, motivated by the service a product will offer (rather than simply for profit)</i></li> <li>● <i>5f Make products through stages of prototypes, making continual refinements</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>5g Disassemble products to see how they work</i></li> <li>● <i>5h Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices</i></li> </ul>
<b>6</b> <b>Review Y4 and Y5 skills</b>	<ul style="list-style-type: none"> <li>● <b>Food:</b></li> <li><i>6a Understand the importance of correct storage and handling of ingredients (using knowledge of microorganisms);</i></li> <li><i>6b Measure accurately and calculate ratios of ingredients to scale up or down a recipe;</i></li> <li><i>6c Demonstrate a range of baking and cooking techniques;</i></li> <li><i>6d Create and refine recipes, including ingredients, methods, cooking times and temperatures</i></li> <li>● <b>Textiles:</b></li> <li><i>6e Create objects (such as a cushion) that employ a seam allowance;</i></li> <li><i>6f Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration);</i></li> <li><i>6g Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles, e.g. a soft decoration for comfort on a cushion)</i></li> <li>● <b>Electronics and Computing:</b></li> <li><i>6h Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips);</i></li> <li><i>6i Write code to control or monitor models and products;</i></li> <li><i>6j Use innovative combinations of electronics (or computing) and mechanics in product designs</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>6k Ensure products have a high quality finish, using art skills where appropriate</i></li> <li>● <i>6l Use prototypes, cross sectional diagrams and computer aided designs to represent designs</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>6m Create innovative designs that improve upon existing products</i></li> <li>● <i>6n Evaluate the design of products so as to suggest improvements to the user experience</i></li> </ul>