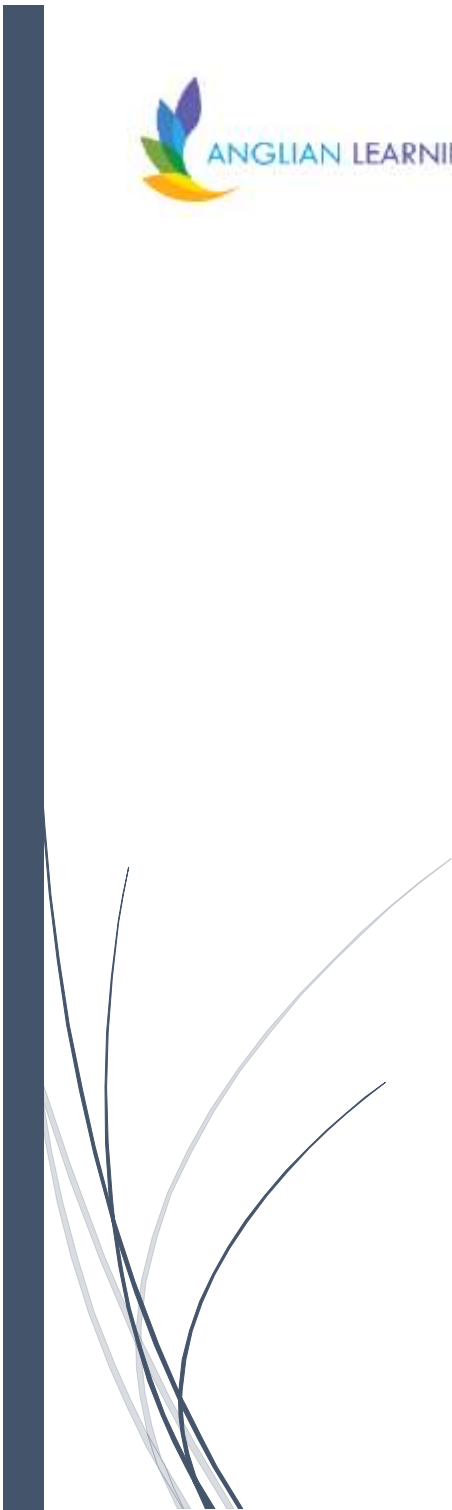




# Marleigh Primary Academy

Design Technology Skills Progression





## Development Matters – Non-statutory Curriculum Guidance for EYFS Marleigh Primary Academy Expressive Arts and Design



The development of children’s artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

Birth to Three Years Old	Three and Four Years Old	Children in Reception
<ul style="list-style-type: none"> <li>• Explore different materials, using all their senses to investigate them. Manipulate and play with different materials.</li> <li>• Use their imagination as they consider what they can do with different materials.</li> <li>• Make simple models which express their ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Explore different materials freely, to develop their ideas about how to use them and what to make.</li> <li>• Develop their own ideas and then decide which materials to use to express them.</li> <li>• Join different materials and explore different textures.</li> </ul>	<ul style="list-style-type: none"> <li>• Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> <li>• Create collaboratively, sharing ideas, resources and skills</li> </ul> <p>e.g. - Provide children with a range of materials for children to construct with. Encourage them to think about and discuss what they want to make. Discuss problems and how they might be solved as they arise. Reflect with children on how they have achieved their aims.</p> <p>- Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue.</p> <p>- Provide a range of materials and tools and teach children to use them with care and precision. Promote independence, taking care not to introduce too many new things at once.</p>

### EYFS Statutory Framework

#### Early Learning Goal: Expressive Arts and Design

Children at the expected level of development will:

#### Creating with materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Share their creations, explaining the process they have used.
- Make use of props and materials when role playing characters in narratives and stories.

Threshold Concept	Milestone 1 Years 1 and 2	Milestone 2 Years 3 and 4	Milestone 3 Years 5 and 6
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Cut materials safely using tools provided.</li> <li>• Measure and mark out to the nearest centimetre.</li> <li>• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</li> <li>• Demonstrate a range of joining techniques (such as gluing, using hinges or combining materials to strengthen).</li> </ul>	<ul style="list-style-type: none"> <li>• Cut materials accurately and safely by selecting appropriate tools.</li> <li>• Measure and mark out to the nearest millimetre.</li> <li>• Apply appropriate cutting and shaping techniques that include cuts within the material's perimeter (such as slots or cut outs).</li> <li>• Select appropriate joining techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or using a more precise scissor cut after roughly cutting out a shape).</li> <li>• Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (e.g. the nature of fabric may require sharper scissors than would be used to cut paper).</li> </ul>
<b>Structures</b>	<ul style="list-style-type: none"> <li>• Practise drilling, screwing, gluing and nailing materials to make and strengthen products.</li> </ul>	<ul style="list-style-type: none"> <li>• Choose suitable techniques to construct products or to repair items.</li> <li>• Strengthen materials using suitable techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).</li> </ul>
<b>Mechanisms</b>	<ul style="list-style-type: none"> <li>• Create products using levers, wheels and winding mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as linked levers or pneumatics).</li> </ul>	<ul style="list-style-type: none"> <li>• Convert rotary motion to linear using cams.</li> <li>• Use innovative combinations of electronics (or computing) and mechanics in product designs.</li> </ul>
<b>Food and nutrition</b>	<ul style="list-style-type: none"> <li>• Cut, peel and grate ingredients safely and hygienically.</li> <li>• Measure or weigh using measuring cups or electronic scales.</li> <li>• Assemble and cook ingredients.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare ingredients hygienically using appropriate utensils.</li> <li>• Measure ingredients accurately to the nearest gram.</li> <li>• Follow a recipe.</li> <li>• Assemble and cook ingredients (controlling the temperature of the hob, if cooking).</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).</li> <li>• Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</li> <li>• Demonstrate a range of baking and cooking techniques.</li> <li>• Create and refine recipes, including ingredients, methods, cooking times and temperatures.</li> </ul>
<b>Electronics</b>	N/A	<ul style="list-style-type: none"> <li>• Create products with series and parallel circuits.</li> <li>• Control and monitor models using apps designed for this purpose.</li> </ul>	<ul style="list-style-type: none"> <li>• Create products using electronics kits that employ a number of components (such as LEDs and resistors).</li> <li>• Write code to control and monitor models or products.</li> </ul>

<p><b>Take inspiration from design</b></p>	<ul style="list-style-type: none"> <li>• Explore objects and designs to identify likes and dislikes.</li> <li>• Suggest improvements to existing designs.</li> <li>• Explore how products have been created.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.</li> <li>• Improve upon existing designs, giving reasons for choices.</li> <li>• Disassemble products to understand how they work.</li> </ul>	<ul style="list-style-type: none"> <li>• Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.</li> <li>• Create innovative designs that improve upon existing products.</li> <li>• Evaluate the design of products to suggest improvements to the user experience.</li> </ul>
<p><b>Design, make, evaluate and improve</b></p>	<ul style="list-style-type: none"> <li>• Design products that have a clear purpose and an intended user.</li> <li>• Make products, refining the design as work progresses.</li> <li>• Use software to design.</li> </ul>	<ul style="list-style-type: none"> <li>• Design with purpose by identifying opportunities to design.</li> <li>• Make products by working efficiently (such as by carefully selecting materials).</li> <li>• Refine work and techniques as work progresses, continually evaluating the product design.</li> <li>• Use apps to design and represent product designs.</li> </ul>	<ul style="list-style-type: none"> <li>• Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</li> <li>• Make products through stages of prototypes, making continual refinements.</li> <li>• Ensure products have a high-quality finish, using art skills where appropriate.</li> <li>• Use prototypes, cross-sectional diagrams and computer-aided designs to represent designs.</li> </ul>