

# Design and Technology Year 1

| Objectives  | Topic   | Milestones 1   |
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| <p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</p> <p>When designing and making, pupils should be taught to:</p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>build structures, exploring how they can be made stronger, stiffer and more stable</li> </ul> <p><b>Cooking &amp; Nutrition</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>use the basic principles of a</li> </ul> | <p><b>TERM 1</b></p> <p><b>Kings, Queens and Castles</b><br/>(3D models of a castle<br/>Talks about their ideas<br/>Joins materials together<br/>Describes what they like/dislike about their work<br/>Communicates ideas through drawings and models<br/>Generates ideas<br/>Shapes materials and puts together pieces<br/>Suggests what to do next<br/>Selects tools/ materials from range suggested by teacher<br/>Measures and marks out materials<br/>Follows safety procedures<br/>Knows how to strengthen materials by folding/ twisting)</p> <p><b>TERM 2</b></p> <p><b>Kenya</b><br/>(3D sculpture)</p> <p><b>TERM 3</b></p> <p><b>Transport</b></p> | <p><b>To master practical skills</b></p> <p><b>Food</b> (linked to Literacy Instructions topics and Beach unit in Term 3)</p> <ul style="list-style-type: none"> <li>Cut, peel or grate ingredients safely and hygienically.</li> <li>Measure or weigh using measuring cups or electronic scales.</li> <li>Assemble or cook ingredients.</li> </ul> <p><b>Materials</b></p> <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, hinges or combining materials to strengthen).</li> </ul> <p><b>Textiles</b></p> <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, hinges or combining materials to strengthen).</li> </ul> <p><b>Construction</b></p> <ul style="list-style-type: none"> <li>Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.</li> </ul> <p><b>Mechanics</b></p> <ul style="list-style-type: none"> <li>Create products using levers, wheels and winding mechanisms.</li> </ul> <p><b>Computing</b></p> <ul style="list-style-type: none"> <li>Model designs using software.</li> </ul> <p><b>To 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> <p><b>To take inspiration from design throughout history</b></p> <ul style="list-style-type: none"> <li>Explore objects and designs to identify likes and dislikes of the designs.</li> <li>Suggest improvements to existing designs.</li> </ul> |

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| <p>healthy and varied diet to prepare dishes</p> <ul style="list-style-type: none"><li>• understand where food comes from.</li></ul> |  | <ul style="list-style-type: none"><li>• Explore how products have been created.</li></ul> |
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