



## Design and Technology Overview



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| <p><b>EYFS</b></p> <p><b>Area of Learning:</b><br/>Expressive Arts and Design</p> <p><b>Aspects:</b><br/>Creating with materials</p>  | <p><b>Design and Technology National Curriculum KS1</b> 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].<br/>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>Evaluate</b></p> <ul style="list-style-type: none"> <li>explore and evaluate a range of existing products</li> <li>evaluate their ideas and products against design criteria</li> </ul> |  |                                      | <p><b>Design and Technology National Curriculum KS2</b> 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, school, leisure, culture, enterprise, industry and the wider environment].<br/>When designing and making, pupils should be taught to:</p> <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>Children at the expected level of development will:</p>  | <p>Pupils should be taught about:</p>   | <p>KS1 Cycle 1</p>   | <p>KS1 Cycle 2</p>                   | <p>Pupils should be taught about:</p>  | <p>LKS2 Cycle 1</p>                       | <p>LKS2 Cycle 2</p>                                     | <p>UKS2 Cycle 1</p>   | <p>UKS2 Cycle 2</p>                              |
| <p><b>Technical Knowledge</b></p>   |   |  |                                      | <p><b>Technical Knowledge</b></p>  |   |   |   |  |
| <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Share their creations, explaining the process they have used.</p> | <p>build structures, exploring how they can be made stronger, stiffer and more stable</p>   | <p><b>Spring 2</b><br/>Cut, Stitch and Join (Textiles)</p> | <p><b>Summer 2</b><br/>Beach Hut</p> | <p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>   | <p><b>Summer 2</b><br/>Greenhouse</p>     | <p><b>Summer 2</b><br/>Functional and Fancy Fabrics</p> | <p><b>Summer 2</b><br/>Greenhouse (Year 4/5)<br/><b>Summer 2</b><br/>Make Do and Mend</p>         | <p><b>Summer 2</b><br/>Engineer</p>              |
|   | <p>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>  | <p><b>Summer 2</b><br/>Push and Pull</p>                   | <p><b>Spring 2</b><br/>Taxi</p>      | <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p>  | <p><b>Spring 2</b><br/>Making It Move</p> |   | <p><b>Spring 2</b><br/>Mega Machine (Year 4/5)<br/><br/><b>Summer 2</b><br/>Moving Mechanisms</p> | <p><b>Spring 2</b><br/>Forces and Mechanisms</p> |
|   |   |  |                                      | <p>understand and use electrical systems in their products [for</p>  |   | <p><b>Spring 2</b><br/>Electrical Circuits</p>          | <p><b>Spring 2</b><br/>Electrical Circuits and</p>  |  |

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|------------------------------|---|--------------------------------------|------------------------------------|---|-------------------------------------|---|---|---|
|                              |   |                                      |                                    | example, series circuits incorporating switches, bulbs, buzzers and motors]                                     |                                     | and Conductor s                                     | Component s   |   |
|                              |   |                                      |                                    | apply their understanding of computing to program, monitor and control their products.                          |                                     | <b>Spring 2</b> Electrical Circuits and Conductor s | <b>Spring 2</b> Electrical Circuits and Component s |   |
| <b>Cooking and Nutrition</b> |   |                                      |                                    | <b>Cooking and Nutrition</b>  |                                     |   |   |   |
|                              | use the basic principles of a healthy and varied diet to prepare dishes |                                      | <b>Autumn 2</b> Remarkable Recipes | understand and apply the principles of a healthy and varied diet  | <b>Autumn 2</b> Cook Well, Eat Well | <b>Autumn 2</b> Fresh Food, Good Food               | <b>Autumn 2</b> Fresh Food, Good Food (Year 4/5)    | <b>Autumn 2</b> Food for Life                                   |
|                              | understand where food comes from.                                       | <b>Autumn 2</b> Chop, Slice and Mask |                                    | Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques                  | <b>Autumn 2</b> Cook Well, Eat Well |   |   | <b>Autumn 2</b> Food for Life                                   |
|                              |   |                                      |                                    | Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. |                                     | <b>Autumn 2</b> Fresh Food, Good Food               | <b>Autumn 2</b> Fresh Food, Good Food (Year 4/5)    | <b>Autumn 2</b> Eat the Season<br><b>Autumn 2</b> Food for Life |