



Elton Primary School and Nursery  
Design Technology Overview from 2022

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|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| <b>Nursery</b> | <ul style="list-style-type: none"> <li>Notice patterns with strong contrasts and be attracted by patterns resembling the human face.</li> <li>Start to make marks intentionally.</li> <li>Explore paint, using fingers and other parts of their bodies as well as brushes and other tools.</li> <li>Express ideas and feelings through making marks, and sometimes give a meaning to the marks they make.</li> <li>Start to develop pretend play, pretending that one object represents another. For example, a child holds a wooden block to her ear and pretends it's a phone.</li> <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> |
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| <b>Reception</b> | <div style="border: 1px solid black; background-color: #e0f2f1; padding: 5px; margin-bottom: 10px;"> <p><b>Early Learning Goals</b></p> <p><b>Creating with Materials</b></p> <ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>Share their creations, explaining the process they have used.</li> <li>Make use of props and materials when role playing characters in narratives and stories.</li> </ul> <p><b>Being Imaginative and Expressive</b></p> <ul style="list-style-type: none"> <li>Invent, adapt and recount narratives and stories with peers and their teacher.</li> <li>Sing a range of well-known nursery rhymes and songs.</li> <li>Perform songs, rhymes, poems and stories with others, and (when appropriate) try to move in time with music.</li> </ul> </div> <ul style="list-style-type: none"> <li>Explore, use and refine a variety of artistic effects to express their ideas and feelings.</li> <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> <li>Watch and talk about dance and performance art, expressing their feelings and responses.</li> <li>Develop storylines in their pretend play.</li> <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> <li>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</li> </ul> <ul style="list-style-type: none"> <li>Draw with increasing complexity and detail, such as representing a face with a circle and including details.</li> <li>Use drawing to represent ideas like movement or loud noises.</li> <li>Show different emotions in their drawings and paintings, like happiness, sadness, fear, etc.</li> <li>Explore colour and colour-mixing.</li> </ul> |
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**Key Stage 1**  
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].

When designing and making, pupils should be taught to:

Design

design purposeful, functional, appealing products for themselves and other users based on design criteria  
 generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology  
 Make  
 select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]  
 select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics  
 Evaluate  
 explore and evaluate a range of existing products  
 evaluate their ideas and products against design criteria  
 Technical knowledge  
 build structures, exploring how they can be made stronger, stiffer and more stable  
 explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

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| <b>Year 1</b> | <b>Lost and Found</b><br><br>Design and make a sandwich for the journey | <b>Nibbles</b>                                                                                                                            | <b>The Lion Inside</b><br><br>Design and make an animal mask.<br>Select tools:<br>cutting, shaping, joining, finishing<br>select materials                                 | <b>The curious case of the disappearing mammoth</b>                                                                       | <b>Toys in Space</b> | <b>Goldilocks and just the one bear</b><br><br>Design, Test, make boats/rocket<br>i.e. Whose rocket can travel the furthest?<br>Which materials/shape boats float? |
| <b>Year 2</b> | <b>Troll Swop</b>                                                       | <b>The owl who was afraid of the dark</b><br><br>Create a fat ball to feed an owl<br>Evaluate existing products.<br>Design and make task. | <b>Dragon Machine</b><br><br>Designing and make a functional machine exploring a range of materials to support written stories<br>Pre-links to using levers/sliders wheels | <b>Great Fire of London Major Glad and Major Dizzy</b><br><br>Moving Toys – design and make<br>Levers/sliders/wheel axles | <b>The Last Wolf</b> | <b>Grandad’s secret giant</b>                                                                                                                                      |

**Key Stage 2**

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].

When designing and making, pupils should be taught to:

**Design**

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  
generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

**Make**

select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  
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

**Evaluate**

investigate and analyse a range of existing products  
evaluate their ideas and products against their own design criteria and consider the views of others to improve their work  
understand how key events and individuals in design and technology have helped shape the world

**Technical knowledge**

apply their understanding of how to strengthen, stiffen and reinforce more complex structures  
understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]  
understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]  
apply their understanding of computing to program, monitor and control their products

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| <b>Year 3</b> | <b>Seal Surfer</b> | <b>Winter’s Child</b><br><br>Snow scene in a box –<br>focus on cutting, joining,<br>shaping, finishing<br>Selecting range of<br>materials     | <b>Stone Age Boy/Snow<br/>Dragon</b>                                                                                                                                              | <b>Big Blue Whale</b>             | <b>Journey</b><br><br>Design and make a<br>bridge to cross the moat<br>into Citadel<br>Skills: research and<br>evaluate bridges, test<br>materials and evaluate | <b>Zereffa Giraffa</b>                                                                                                                                  |
| <b>Year 4</b> | <b>Gorilla</b>     | <b>Leon and the place<br/>between</b><br><br>Fairground game or<br>mechanical toy. Using<br>simple gears, pulleys cams,<br>levers and linkage | <b>Escape from Pompeii</b><br><br>Build a structure to<br>withstand a volcanic<br>eruption and<br>earthquake -<br>generate ideas,<br>develop,<br>communicate, create<br>sketches. | <b>When the giant<br/>stirred</b> | <b>Where the forest meets<br/>the sea</b>                                                                                                                       | <b>Blue John</b><br><br>Rainforest fruit<br>salad –<br>evaluate/food taste<br>existing food<br>product. Design<br>make and evaluate<br>own Fruit salad. |

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| <p><b>Year 5</b></p> | <p><b>Queen of the Falls</b></p> <p>Design and make a model raft that can withstand a drop - 'Niagra Falls'. Use water - Test and evaluate.</p> | <p><b>The Lost Happy Endings</b></p>                                                                                | <p><b>Arthur and the Golden Rope</b></p> <p>Super Hero<br/>Granola/Snack Pot/Energy Bar<br/>Food Tasting - evaluating preparation, making, evaluation.<br/>Food</p> | <p><b>The Darkest Dark</b></p> <p>Design and make own moving spaceship/model.</p> | <p><b>The Paper Bag Prince</b></p>                                                                                                                                         | <p><b>The Hunter</b></p>                                                                                              |
| <p><b>Year 6</b></p> | <p><b>Star of Hope, Star of Fear</b></p>                                                                                                        | <p><b>Can we save the Tiger?</b></p> <p>Shadow puppets – Design and make, cutting, selecting materials - TIGERS</p> | <p><b>The Selfish Giant</b></p>                                                                                                                                     | <p><b>Jemmy Button</b></p>                                                        | <p><b>Manfish</b></p> <p>Design a light system for underwater diving.<br/>Electrical control/testing materials – i.e. waterproof covering/on/off switches/buzzer alert</p> | <p><b>Sky Chasers</b></p> <p>Textiles – _design own t-shirts which show your identity (batik, patchwork, tie dye)</p> |