

# Great Crosby Catholic Primary School



## Progression in Design and Technology Knowledge and Skills

### Design

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| EYFS   | <ul style="list-style-type: none"> <li>• Explore different materials freely, in order 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>• Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</li> </ul> <p>Create collaboratively, sharing ideas, resources and skills.</p> |
| Year 1 | <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>  |
| Year 2 | <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>  |
| Year 3 | <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>   |
| Year 4 | <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>   |
| Year 5 | <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> </ul>   |

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|        | <ul style="list-style-type: none"><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>   |
| Year 6 | <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> |

*\*red indicates revisiting*

## Make

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| EYFS   | <p>Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them</p> <p>Choose the right resources to carry out their own plan.</p> <p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <ul style="list-style-type: none"> <li>• Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park.</li> </ul> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <hr/> <p>Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</p> <p>Create collaboratively, sharing ideas, resources and skills.</p> <p>Safely use and <b>explore a variety of materials</b>, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p><b>Use a range of small tools, including scissors, paintbrushes and cutlery.</b></p> |
| Year 1 | <p><b>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</b></p> <p><b>select from and use a wide range of materials</b> and components, including construction materials, textiles and ingredients, according to their characteristics</p>  |
| Year 2 | <p><b>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</b></p> <p><b>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</b></p>  |
| Year 3 | <p><b>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</b></p> <p><b>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</b></p>   |

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| Year 4 | <p>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p> |
| Year 5 | <p>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p> |
| Year 6 | <p>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p> |

## Evaluate

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| Nursery   | Explore different materials freely, in order to develop their ideas about how to use them and what to make.  |
| Reception | Return to and build on their previous learning, refining ideas and developing their ability to represent them.<br>Safely use and <b>explore a variety of materials</b> , tools and techniques, experimenting with colour, design, texture, form and function.<br>Share their creations, explaining the process they have used. |
| Year 1    | explore and evaluate a range of existing products<br>☑ evaluate their ideas and products against design criteria   |
| Year 2    | <b>explore and evaluate a range of existing products</b><br><b>evaluate their ideas and products against design criteria</b>   |
| Year 3    | investigate and analyse a range of existing products<br><b>evaluate their ideas and products against their own design criteria</b> and consider the views of others to improve their work<br>understand how key events and individuals in design and technology have helped shape the world                                    |
| Year 4    | <b>investigate and analyse a range of existing products</b><br><b>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</b><br><b>understand how key events and individuals in design and technology have helped shape the world</b>                      |
| Year 5    | <b>investigate and analyse a range of existing products</b><br><b>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</b><br><b>understand how key events and individuals in design and technology have helped shape the world</b>                      |

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| Year 6 | <p>investigate and analyse a range of existing products</p> <p>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>understand how key events and individuals in design and technology have helped shape the world</p> |

## Technical Knowledge

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| Nursery   | <p>Explore how things work.<br/>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p>   |
| Reception | <p>Develop their small motor skills so that they can use a range of tools competently, safely and confidently.<br/>Safely use and <b>explore a variety of materials</b>, tools and techniques, experimenting with colour, design, texture, form and function.<br/>Use a range of small tools, including scissors, paintbrushes and cutlery.</p>   |
| Year 1    | <p>build structures, exploring how they can be made stronger, stiffer and more stable<br/>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>   |
| Year 2    | <p><b>build structures, exploring how they can be made stronger, stiffer and more stable</b><br/><b>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</b></p>   |
| Year 3    | <p>apply their understanding of <b>how to strengthen, stiffen</b> and reinforce more complex structures<br/>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]<br/>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]<br/>apply their understanding of computing to program, monitor and control their products.</p>                      |
| Year 4    | <p><b>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</b><br/><b>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</b><br/><b>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</b><br/><b>apply their understanding of computing to program, monitor and control their products.</b></p> |
| Year 5    | <p><b>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</b></p>   |

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| Year 6 | <p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>apply their understanding of computing to program, monitor and control their products.</p> |



## STRAND – Food and Nutrition

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| Nursery   | Begin to use a range of small tools, including scissors, paintbrushes and cutlery  |
| Reception | Use a range of small tools, including scissors, paintbrushes and cutlery.  |
| Year 1    | use the basic principles of a healthy and varied diet to prepare dishes<br>understand where food comes from.   |
| Year 2    | use the basic principles of a healthy and varied diet to prepare dishes<br>understand where food comes from.   |
| Year 3    | understand and apply the principles of a healthy and varied diet<br>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques<br>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |
| Year 4    | understand and apply the principles of a healthy and varied diet<br>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques<br>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |
| Year 5    | understand and apply the principles of a healthy and varied diet<br>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques<br>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |
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|  | <p>understand and apply the principles of a healthy and varied diet</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> |
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