**National Curriculum Programmes of Study**

**Design Technology - Year 1**

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| Design TechnologyDT1/1.1    Design | |
| DT1/1.1a    design purposeful, functional, appealing products for themselves and other users based on design criteria |  |
| DT1/1.1b    generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology |  |

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| DT1/1.2    Make | |
| DT1/1.2a    select from and use a range of tools and equipment to perform practical tasks |  |
| DT1/1.2b    select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics |  |
| Key Skills:  Use scissors safely to cut paper and then card  Join material using tape, glue and paper fasteners  Make a simple lever or slider to make a moving picture - Simple flaps / folds / sliders  Assemble and join frameworks using a variety of materials  Construct models from kits  Use basic tools safely |  |

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| DT1/1.3    Evaluate | |
| DT1/1.3a    explore and evaluate a range of existing products |  |
| DT1/1.3b    evaluate their ideas and products against design criteria |  |

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| DT1/1.4    Technical Knowledge | |
| DT1/1.4a    build structures, exploring how they can be made stronger, stiffer and more stable |  |
| DT1/1.4b    explore and use mechanisms, in their products |  |

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| DT1/2.1    Cooking & Nutrition | |
| DT1/2.1a    use the basic principles of a healthy and varied diet to prepare dishes |  |
| DT1/2.1b    understand where food comes from |  |
| Key Skills:  Know properties of food – taste, texture and appearance  Prepare and combine ingredients into specific projects  Use basic tools safely |  |

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**Design Technology - Year 2**

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| Design TechnologyDT2/1.1    Design | |
| DT2/1.1a    design purposeful, functional, appealing products for themselves and other users based on design criteria |  |
| DT2/1.1b    generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology |  |

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| DT2/1.2    Make | |
| DT2/1.2a    select from and use a range of tools and equipment to perform practical tasks |  |
| DT2/1.2b    select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics |  |
| Key Skills:  Use tools safely  Axle holders – using clothes pegs, punched holes in card  Use construction kits  Cut using a template they have made  Use sewing techniques – starting, ending, running stitch  Use materials with care and accuracy  Join two pieces of fabric to achieve a strong finish  Make a strong, stable structure  Create a winding mechanism |  |

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| DT2/1.3    Evaluate | |
| DT2/1.3a    explore and evaluate a range of existing products |  |
| DT2/1.3b    evaluate their ideas and products against design criteria |  |
| Key Skills:  Understand how simple mechanisms relating to moving vehicles work |  |

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| DT2/1.4    Technical Knowledge | |
| DT2/1.4a    build structures, exploring how they can be made stronger, stiffer and more stable |  |
| DT2/1.4b    explore and use mechanisms, in their products |  |

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| DT2/2.1    Cooking & Nutrition | |
| DT2/2.1a    use the basic principles of a healthy and varied diet to prepare dishes |  |
| DT2/2.1b    understand where food comes from |  |
| Key Skills:  Know properties of food – taste, texture and appearance  Prepare and combine ingredients into specific projects  Use basic tools safely |  |

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**Design Technology - Year 3**

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| Design TechnologyDT2/1.1    Design | |
| DT2/1.1a    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 |  |
| DT2/1.1b    generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |  |

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| DT2/1.2    Make | |
| DT2/1.2a    select from and use a wider range of tools and equipment to perform practical tasks accurately |  |
| DT2/1.2b    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 |  |
| Key skills:  use different joining and cutting methods related to paper and card  use construction kits  understand ways in which to make structures stable – freestanding  nets used in packaging, scoring card  folds and flaps  decorative techniques  accurate cutting, measuring and folding  control, pneumatic systems (pressure inflate, deflate. Input, output, pump)  linkages and levers  hinges and sliders  use different joining and cutting techniques with paper and card scoring  join and combine materials using simple hand tools to allow movement  use simple mechanisms to achieve different movements e.g. linear, rotary |  |

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| DT2/1.3    Evaluate | |
| DT2/1.3a    investigate and analyse a range of existing products |  |
| DT2/1.3b    evaluate their ideas and products against their own design criteria and consider the views of others to improve their work |  |
| DT2/1.3c    understand how key events and individuals in design and technology have helped shape the world |  |

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| DT2/1.4    Technical Knowledge | |
| DT2/1.4a    apply their understanding of how to strengthen, stiffen and reinforce more complex structures |  |
| DT2/1.4b    understand and use mechanical systems in their products |  |
| DT2/1.4c    understand and use electrical systems in their products |  |
| DT2/1.4d    apply their understanding of computing to programme, monitor and control their products |  |

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| DT2/2.1    Cooking & Nutrition | |
| DT2/2.1a    understand and apply the principles of a healthy and varied diet |  |
| DT2/2.1b    cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet |  |
| DT2/2.1c    become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] |  |
| DT2/2.1d    understand the source, seasonality and characteristics of a broad range of ingredients |  |
| Key Skills:  preparing food, cutting, grating etc. |  |

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**Design Technology - Year 4**

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| Design TechnologyDT2/1.1    Design | |
| DT2/1.1a    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 |  |
| DT2/1.1b    generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |  |

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| DT2/1.2    Make | |
| DT2/1.2a    select from and use a wider range of tools and equipment to perform practical tasks accurately |  |
| DT2/1.2b    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 |  |
| Key skills:  join fabric in simple ways by gluing and stitching  use templates designed for measuring and marking out  testing fabrics to meet design criteria  use decorative techniques  securing with different fastenings  use construction materials e.g. wood, card and appropriate adhesives  use tools appropriately to cut and join materials  construct simple electrical circuits and switches  evaluate product carrying out tests |  |

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| DT2/1.3    Evaluate | |
| DT2/1.3a    investigate and analyse a range of existing products |  |
| DT2/1.3b    evaluate their ideas and products against their own design criteria and consider the views of others to improve their work |  |
| DT2/1.3c    understand how key events and individuals in design and technology have helped shape the world |  |

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| DT2/1.4    Technical Knowledge | |
| DT2/1.4a    apply their understanding of how to strengthen, stiffen and reinforce more complex structures |  |
| DT2/1.4b    understand and use mechanical systems in their products |  |
| DT2/1.4c    understand and use electrical systems in their products |  |
| DT2/1.4d    apply their understanding of computing to programme, monitor and control their products |  |

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| DT2/2.1    Cooking & Nutrition | |
| DT2/2.1a    understand and apply the principles of a healthy and varied diet |  |
| DT2/2.1b    cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet |  |
| DT2/2.1c    become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] |  |
| DT2/2.1d    understand the source, seasonality and characteristics of a broad range of ingredients |  |
| Key Skills:  preparing food, cutting, grating etc. |  |

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**Design Technology - Year 5**

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| Design TechnologyDT2/1.1    Design | |
| DT2/1.1a    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 |  |
| DT2/1.1b    generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |  |

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| DT2/1.2    Make | |
| DT2/1.2a    select from and use a wider range of tools and equipment to perform practical tasks accurately |  |
| DT2/1.2b    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 |  |
| Key skills:  Use bench hook/G-cramp/hack saw  Use equipment safely  Drill off centre hole in a wheel  Generate ideas  Plan what to do next  Select appropriate tools, materials, components  Explain choices  Produce annotated diagrams  Measure, mark out, cut and assemble  Use ICT for researching and designing  Techniques for reinforcing and strengthening materials |  |

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| DT2/1.3    Evaluate | |
| DT2/1.3a    investigate and analyse a range of existing products |  |
| DT2/1.3b    evaluate their ideas and products against their own design criteria and consider the views of others to improve their work |  |
| DT2/1.3c    understand how key events and individuals in design and technology have helped shape the world |  |

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| DT2/1.4    Technical Knowledge | |
| DT2/1.4a    apply their understanding of how to strengthen, stiffen and reinforce more complex structures |  |
| DT2/1.4b    understand and use mechanical systems in their products |  |
| DT2/1.4c    understand and use electrical systems in their products |  |
| DT2/1.4d    apply their understanding of computing to programme, monitor and control their products |  |

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| DT2/2.1    Cooking & Nutrition | |
| DT2/2.1a    understand and apply the principles of a healthy and varied diet |  |
| DT2/2.1b    cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet |  |
| DT2/2.1c    become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] |  |
| DT2/2.1d    understand the source, seasonality and characteristics of a broad range of ingredients |  |
| Key Skills:  mixing/combining/shaping  weigh and measure accurately (time/dry ingredients, liquids)  Follow instructions |  |

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**Design Technology - Year 6**

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| Design TechnologyDT2/1.1    Design | |
| DT2/1.1a    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 |  |
| DT2/1.1b    generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |  |

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| DT2/1.2    Make | |
| DT2/1.2a    select from and use a wider range of tools and equipment to perform practical tasks accurately |  |
| DT2/1.2b    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 |  |
| Key skills:  Use appropriate recording techniques  Make a well-finished, working model  Incorporate a motor in which they can control the speed and direction of movement  Mark out, cut and join  Techniques for reinforcing and strengthening  Methods of construction  Follow a pattern allowing for seam allowance of a specified amount  Pin a pattern to a fabric allowing for minimal wastage  Pin to tack  Stitch the correct sides together so they can be turned right way round.  Use a sewing machine  Finishing techniques –embroidery/ sequins etc. |  |

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| DT2/1.3    Evaluate | |
| DT2/1.3a    investigate and analyse a range of existing products |  |
| DT2/1.3b    evaluate their ideas and products against their own design criteria and consider the views of others to improve their work |  |
| DT2/1.3c    understand how key events and individuals in design and technology have helped shape the world |  |

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| DT2/1.4    Technical Knowledge | |
| DT2/1.4a    apply their understanding of how to strengthen, stiffen and reinforce more complex structures |  |
| DT2/1.4b    understand and use mechanical systems in their products |  |
| DT2/1.4c    understand and use electrical systems in their products |  |
| DT2/1.4d    apply their understanding of computing to programme, monitor and control their products |  |

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| DT2/2.1    Cooking & Nutrition | |
| DT2/2.1a    understand and apply the principles of a healthy and varied diet |  |
| DT2/2.1b    cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet |  |
| DT2/2.1c    become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] |  |
| DT2/2.1d    understand the source, seasonality and characteristics of a broad range of ingredients |  |
| Key Skills:  mixing/combining/shaping  weigh and measure accurately (time/dry ingredients, liquids)  Follow instructions |  |