**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 cardJoin material using tape, glue and paper fastenersMake a simple lever or slider to make a moving picture - Simple flaps / folds / slidersAssemble and join frameworks using a variety of materialsConstruct models from kitsUse 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 appearancePrepare and combine ingredients into specific projectsUse 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 safelyAxle holders – using clothes pegs, punched holes in cardUse construction kitsCut using a template they have madeUse sewing techniques – starting, ending, running stitchUse materials with care and accuracyJoin two pieces of fabric to achieve a strong finishMake a strong, stable structureCreate 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 appearancePrepare and combine ingredients into specific projectsUse 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 carduse construction kitsunderstand ways in which to make structures stable – freestandingnets used in packaging, scoring cardfolds and flapsdecorative techniquesaccurate cutting, measuring and foldingcontrol, pneumatic systems (pressure inflate, deflate. Input, output, pump)linkages and levershinges and slidersuse different joining and cutting techniques with paper and card scoringjoin and combine materials using simple hand tools to allow movementuse 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 outtesting fabrics to meet design criteriause decorative techniquessecuring with different fasteningsuse construction materials e.g. wood, card and appropriate adhesivesuse tools appropriately to cut and join materialsconstruct simple electrical circuits and switchesevaluate 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 sawUse equipment safelyDrill off centre hole in a wheelGenerate ideasPlan what to do nextSelect appropriate tools, materials, componentsExplain choicesProduce annotated diagramsMeasure, mark out, cut and assembleUse ICT for researching and designingTechniques 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/shapingweigh 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 techniquesMake a well-finished, working modelIncorporate a motor in which they can control the speed and direction of movementMark out, cut and joinTechniques for reinforcing and strengtheningMethods of constructionFollow a pattern allowing for seam allowance of a specified amountPin a pattern to a fabric allowing for minimal wastagePin to tackStitch the correct sides together so they can be turned right way round.Use a sewing machineFinishing 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/shapingweigh and measure accurately (time/dry ingredients, liquids)Follow instructions |  |