# Subject Map for National Curriculum Objectives, DT

| 3National Curriculum Subject: Design Technology | | | | | | | |
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| | | National Curriculum Objective | | | | | |
| | | Block 1 | Block 2 | Block 3 | Block 4 | Block 5 | Block 6 |
| KS1 | Y1 | **Introduction to DT**<br>**Simple shelter design**<br><br>Explain, explore and evaluate a range of existing products<br><br>Technical knowledge: explore and use mechanisms in their products | **Fruit and vegetables**<br><br>To design purposeful, functional, appealing products for themselves and other users based on design criteria<br><br>To select from and use a range of tools and equipment to perform practical tasks<br><br>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br><br>To explore and evaluate a range of existing products | **Paper toy designs**<br><br>To explore and evaluate a range of existing products<br><br>To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology<br><br>To design purposeful, functional, appealing products for themselves and other users based on design criteria<br><br>To select from and use a range of tools and equipment to perform practical tasks<br><br>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br><br>To explain evaluate their ideas and products against design criteria | **Egg packaging**<br><br>To select from and use a range of tools and equipment to perform practical tasks<br><br>Design:<br>design purposeful, functional, appealing products for themselves and other users based on design criteria<br><br>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology | **Insulated cup design**<br><br>To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology<br><br>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br><br>To build structures, exploring how they can be made stronger, stiffer and more stable<br><br>To select from and use a range of tools and equipment to perform practical tasks<br>To explain evaluate their ideas and products against design criteria | **Picnic Lunch**<br><br>Cooking & Nutrition: to understand where food comes from<br><br>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics |
| | Y2 | **Pencil pots** | **Upcycling- Link to Christmas**<br><br>To design purposeful, functional, appealing products | **Sewing simple skills- Running stitch, tying and knot and threading** | **Design and make Scones**<br><br>design purposeful, functional, appealing products for | **Inventors- Bridges**<br><br>To explore and evaluate a range of existing products | **Where does food come from?**<br><br>Use the basic principles of a healthy and varied diet to prepare dishes |

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| | | Explain explore and evaluate a range of existing products<br><br>Make select from and use a range of tools and equipment to perform practical tasks<br><br>Explain evaluate their ideas and products against design criteria | for themselves and other users based on design criteria<br><br>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br><br>To evaluate their ideas and products against design criteria<br><br>To build structures, exploring how they can be made stronger, stiffer and more stable | To explain, explore and evaluate a range of existing products<br>To make, select and from and use a range of tools and equipment to perform practical tasks<br><br>To explain and evaluate their ideas and products against design criteria | themselves and other users based on design criteria<br><br>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br><br>explore and evaluate a range of existing products<br><br>evaluate their ideas and products against design criteria | To design purposeful, functional, appealing products for themselves and other users based on design criteria explore and evaluate a range of existing products<br><br>To build structures, exploring how they can be made stronger, stiffer and more stable<br><br>To explore and use mechanisms, in their products. | Understand where food comes from.<br><br>To make and select from and use a range of tools and equipment to perform practical tasks<br><br>To make and select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics |
| Lower KS2 | Y3 | **<u>Picture frames</u>**<br><br>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures<br><br>Select from and use a wider range of tools and equipment to perform practical tasks accurately<br><br>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **<u>Ancient home models</u>**<br><br>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups<br><br>Select from and use a wider range of tools and equipment to perform practical tasks accurately | **<u>London landmark models</u>**<br><br>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures<br><br>select from and use a wider range of tools and equipment to perform practical tasks accurately<br><br>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **<u>Needlework- recap skills, refine running stitch to make a bookmark design</u>**<br><br>Design: generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design<br><br>Make: Select from and use a wider range of tolls and equipment to perform practical tasks accurately<br><br>Make: 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 | **<u>UK Food and Jam tarts</u>**<br><br>Cooking and nutrition: understand the source, seasonality and characteristics of a broad range of ingredients<br><br>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques | **<u>Healthy diets and savoury dishes</u>**<br><br>Cooking and nutrition: understand and apply the principles of a healthy and varied diet<br><br>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques |
| | Y4 | **<u>Bread</u>**<br><br>Cooking and nutrition: cook a repertoire of | **<u>Junk modelling robots</u>**<br><br>Generate, develop, model and communicate their ideas | **<u>Levers and linkages- Interactive books</u>** | **<u>Water wheels</u>**<br><br>understand how key events and individuals in design and | **<u>Roman food</u>** | **<u>Sewing- type of stitch, simple bag</u>**<br><br>Make: select from and use a wider range of materials and components, |

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| | | predominantly savoury dishes so that they can feed themselves and others a healthy and varied diet<br>Cooking and nutrition: 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] | through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design<br><br>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<br>understand and use mechanical systems in their products | 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<br><br>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design<br><br>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately<br><br>investigate and analyse a range of existing products<br><br>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | technology have helped shape the world<br><br>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately<br><br>Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures<br><br>Technical knowledge: understand and use mechanical systems in their products the views of others to improve their work | understand and apply the principles of a healthy and varied diet<br>cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet<br>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] | including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities |
| Upper KS2 | Y5 | **<u>Tinkercad 3D design</u>**<br><br>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 | **<u>Potato dishes and stew</u>**<br><br>Cooking and nutrition: cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet<br>Cooking and nutrition: become competent in a range of cooking techniques [for | **<u>Viking longboats</u>**<br><br>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups<br>select from and use a wider range of tools and | **<u>Space technology</u>**<br><br>understand how key events and individuals in design and technology have helped shape the world<br>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded | **<u>Birdhouses</u>**<br><br>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 | **<u>Carnival costumes</u>**<br><br>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<br>generate, develop, model and communicate their ideas through discussion, annotated sketches, |

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| | | sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 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] | 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] Cooking and nutrition: understand the source, seasonality and characteristics of a broad range of ingredients | equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately 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] | diagrams, prototypes, pattern pieces and computer-aided design | generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design<br><br>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately<br><br>apply their understanding of how to strengthen, stiffen and reinforce more complex structures<br><br>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] | cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design<br>select from and use a wider range of tools and equipment to perform practical tasks accurately<br>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<br>investigate and analyse a range of existing products<br>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work<br>understand and apply the principles of a healthy and varied diet<br>cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet<br>become competent in a range of cooking techniques |
| | Y6 | **Family meals**<br><br>Understand the source, seasonality and characteristics of a broad range of ingredients<br><br>cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet | **Sewing- Range of stitches**<br><br>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<br>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work<br>generate, develop, model and communicate their ideas through discussion, | **War inventions**<br><br>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<br>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work<br>generate, develop, model and communicate their ideas through discussion, | **War inventions**<br><br>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<br><br>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **Tinkercad**<br><br>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<br>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design<br>apply their understanding of how to strengthen, stiffen and | **Picnic dishes**<br><br>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 |

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| | | | annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | reinforce more complex structures<br>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] | |