

Subject Map for National Curriculum Objectives, DT

| 3National Curriculum Subject: Design Technology | | | | | | | |
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| | | National Curriculum Objective | | | | | |
| | | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| KS1 | Y1 | <p>Explain, explore and evaluate a range of existing products</p> <p>Technical knowledge: explore and use mechanisms in their products</p> | <p>To design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>To select from and use a range of tools and equipment to perform practical tasks</p> <p>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics</p> <p>To explore and evaluate a range of existing products</p> | <p>To explore and evaluate a range of existing products</p> <p>To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>To design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>To select from and use a range of tools and equipment to perform practical tasks</p> <p>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>To explain evaluate their ideas and products against design criteria</p> | <p>Cooking and nutrition: use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>To select from and use a range of tools and equipment to perform practical tasks</p> <p>Design: design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> | <p>To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>To build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>To select from and use a range of tools and equipment to perform practical tasks</p> <p>To explain evaluate their ideas and products against design criteria</p> | <p>Cooking & Nutrition: to understand where food comes from</p> |
| | Y2 | <p>To use the basic principles of a healthy and varied diet to prepare dishes</p> | <p>To design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>To select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics</p> | <p>To explain, explore and evaluate a range of existing products</p> <p>To make, select from and use a range of tools and equipment to perform practical tasks</p> <p>To explain and evaluate their ideas and products against design criteria</p> | <p>To understand where food comes from</p> | <p>To explore and evaluate a range of existing products</p> <p>To design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>explore and evaluate a range of existing products</p> <p>To build structures, exploring how they can be made</p> | <p>To make and select from and use a range of tools and equipment to perform practical tasks</p> <p>To make and select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics</p> |

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| | | | <p>To evaluate their ideas and products against design criteria</p> <p>To build structures, exploring how they can be made stronger, stiffer and more stable</p> | | | <p>stronger, stiffer and more stable</p> <p>To explore and use mechanisms, in their products.</p> | |
| Lower KS2 | Y3 | <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks accurately</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> | <p>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</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks accurately</p> | <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures select from and use a wider range of tools and equipment to perform practical tasks accurately evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> | <p>Design: generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design</p> <p>Make: Select from and use a wider range of tools and equipment to perform practical tasks accurately</p> <p>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</p> | <p>Cooking and nutrition: understand the source, seasonality and characteristics of a broad range of ingredients</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> | <p>Cooking and nutrition: 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> |
| | Y4 | <p>Cooking and nutrition: cook a repertoire of predominantly savoury dishes so that they can feed themselves and others a healthy and varied diet</p> <p>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</p> | <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</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> | <p>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</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces</p> | <p>understand how key events and individuals in design and technology have helped shape the world</p> <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>Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> | <p>understand and apply the principles of a healthy and varied diet</p> <p>cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet 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</p> | <p>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</p> |

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| | | ingredients; adapting and using their own recipes] | understand and use mechanical systems in their products | and computer-aided design select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately 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 and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] | Technical knowledge: understand and use mechanical systems in their products the views of others to improve their work | season dishes and combine ingredients; adapting and using their own recipes] | |
| Upper KS2 | Y5 | 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 apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, | 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 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] | 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 select from and use a wider range of tools and 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 | understand how key events and individuals in design and technology have helped shape the world generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided 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 select from and use a wider range of tools and equipment to perform practical tasks [for | 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 select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according |

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| | | gears, pulleys, cams, levers and linkages] | Cooking and nutrition: understand the source, seasonality and characteristics of a broad range of ingredients | their products [for example, gears, pulleys, cams, levers and linkages] | | 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] | to their functional properties and aesthetic qualities 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 and apply the principles of a healthy and varied diet cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet become competent in a range of cooking techniques |
| Y6 | Understand the source, seasonality and characteristics of a broad range of ingredients | 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 their ideas and products against their own design criteria and consider the views of others to improve their work generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | 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 their ideas and products against their own design criteria and consider the views of others to improve their work generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | 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 their ideas and products against their own design criteria and consider the views of others to improve their work generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | 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 their ideas and products against their own design criteria and consider the views of others to improve their work generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided 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 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 apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques |