# DT Progression

Reception and Key Stage 1

| Early Years Foundation Stage | National Curriculum |
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| • Use a range of small tools, including scissors, paint brushes and cutlery.<br>• Share their creations, explaining the process they have used.<br>**Breadth of Study**<br>• Use everyday products, stories, pictures and experiences to inspire their creations.<br>• Explore and create using a wide range of materials and components, including upcycled materials, construction kits, textiles and ingredients.<br>• Use pictures, interests and experiences to inspire their creations.<br>• Explore a range of tools to and equipment to perform practical tasks safely, for example, cutting and joining | **Design**<br>• Design purposeful, functional, appealing products for themselves and other users based on design criteria<br>• Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology<br>**Make**<br>• Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]<br>• Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br>**Evaluate**<br>• Explore and evaluate a range of existing products<br>• Evaluate their ideas and products against design criteria<br>**Technical knowledge**<br>• 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.<br>**Cooking and Nutrition**<br>• Use the basic principles of a healthy and varied diet to prepare dishes<br>• Understand where food comes from.<br>**Breadth of Study**<br>• Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. |

# MANORCROFT PRIMARY SCHOOL

| EYFS | National Curriculum | Aspect | Reception | Year 1 | Year 2 |
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| **Share their creations, explaining the process they have used.** | **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** | **Generation of ideas** | Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products, stories or their own ideas, interests or experiences. | Create a design to meet simple design criteria. | Generate and communicate their ideas through a range of different methods. |
| **Use a range of small tools, including scissors, paint brushes and cutlery.**<br><br>**Explore a range of tools to and equipment to perform practical tasks safely, for example, cutting and joining.** | **Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]** | **Cutting and joining textiles** | | Cut and join textiles using glue and simple stitches. | Use different methods of joining fabrics, including glue and running stitch. |
| | | **Investigation** | Choose and explore appropriate tools for simple practical tasks. | Select the appropriate tool for a simple practical task. | Select the appropriate tool for a task and explain their choice. |
| **Explore and create using a wide range of materials and components, including upcycled materials, construction kits, textiles and ingredients.** | **Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics** | **Decorating and embellishing textiles** | | Use gluing, stapling or tying to decorate fabric, including buttons and sequins. | Add simple decorative embellishments, such as buttons, prints, sequins and appliqué. |
| | | **Materials for a purpose** | Select appropriate materials when constructing and making. | Select and use a range of materials, beginning to explain their choices. | Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect. |
| | | **Food preparation and cooking** | Follow instructions, including simple recipes, that include measures and ingredients. | | Prepare ingredients by peeling, grating, chopping and slicing. |

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| **Use everyday products, stories, pictures and experiences to inspire their creations.** | **Explore and evaluate a range of existing products** | **Everyday products** | Name and explore a range of everyday products and begin to talk about how they are used. | Name and explore a range of everyday products and describe how they are used. | Explain how an everyday product could be improved. |
| **Share their creations, explaining the process they have used.**<br><br>**Use everyday products, stories, pictures and experiences to inspire their creations.** | **Evaluate their ideas and products against design criteria** | **Compare and contrast** | Describe what, why and how something was made and compare with others. | Describe the similarities and differences between two products. | Compare different or the same products from the same or different brands. |
| | | **Evaluation** | Adapt and refine their work as they are constructing and making. | Talk about their own and each other's work, identifying strengths or weaknesses and offering support. | Explain how closely their finished products meet their design criteria and say what they could do better in the future. |
| | | **Significant people** | Explore significant products. | | Explain why a designer or inventor is important. |
| **Explore and create using a wide range of materials and components, including upcycled materials, construction kits, textiles and ingredients.** | **Build structures, exploring how they can be made stronger, stiffer and more stable** | **Structures** | Construct simple structures and models using a range of materials. | Construct simple structures, models or other products using a range of materials. | Explore how a structure can be made stronger, stiffer and more stable. |
| | **Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.** | **Mechanisms and movement** | Explore, build and play with a range of resources and construction kits with wheels and axles. | Use wheels and axles to make a simple moving model.<br>Use a range of mechanisms (levers, sliders, wheels and axles) in models or products. | |
| | **Use the basic principles of a healthy and varied diet to prepare dishes** | **Food preparation and cooking** | Follow instructions, including simple recipes, that include measures and ingredients. | | Prepare ingredients by peeling, grating, chopping and slicing. |
| | | **Nutrition** | | Select healthy ingredients for a fruit or vegetable salad. | Describe the types of food needed for a healthy and varied diet and apply the principles |

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| | | | | | to make a simple, healthy meal. |
| | **Understand where food comes from.** | **Origins of food** | | Sort foods into groups by whether they are from an animal or plant source. | Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables). |
| **Explore a range of tools to and equipment to perform practical tasks safely, for example, cutting and joining** | **Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.** | **Staying Safe** | Follow rules and instructions to keep safe. | Follow the rules to keep safe during a practical task. | Work safely and hygienically in construction and cooking activities. |

**MANORCROFT PRIMARY SCHOOL**

# DT Progression

Key Stage 2

| National Curriculum |
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| **Design**<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>**Make**<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>• 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**<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 how key events and individuals in design and technology have helped shape the world.<br>**Technical knowledge**<br>• Apply their understanding of how to strengthen, stiffen 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.<br>**Cooking and Nutrition**<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.<br>• Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.<br>**Breadth of Study**<br>• Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.<br>• Critique, evaluate and test their ideas and products and the work of others. |

# MANORCROFT PRIMARY SCHOOL

| National Curriculum | Aspect | Year 3 | Year 4 | Year 5 | Year 6 |
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| **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.** | **Generation of ideas** | Develop design criteria to inform a design. | Use annotated sketches and exploded diagrams to test and communicate their ideas. | Use pattern pieces and computer-aided design packages to design a product. | Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways. |
| **Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.** | **Cutting and joining textiles** | | | | Pin and tack fabrics in preparation for sewing and more complex pattern work. |
| | **Investigation** | Use tools safely for cutting and joining materials and components. | Select, name and use tools with adult supervision. | | Select appropriate tools for a task and use them safely and precisely. |
| **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.** | **Decorating and embellishing textiles** | | | | Use different methods of fastening for function and decoration, including press studs, Velcro and buttons. |
| | **Materials for a purpose** | Plan which materials will be needed for a task and explain why. | Choose from a range of materials, showing an understanding of their different characteristics. | Select and combine materials with precision. | Choose the best materials for a task, showing an understanding of their working characteristics. |

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| **Investigate and analyse a range of existing products.** | **Everyday products** | | Investigate and identify the design features of a familiar product. | Explain how the design of a product has been influenced by the culture or society in which it was designed or made. | Analyse how an invention or product has significantly changed or improved people's lives. |
| | **Compare and contrast** | | Create and complete a comparison table to compare two or more products. | | Create a detailed comparative report about two or more products or inventions. |
| **Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.** | | | | Survey users in a range of focus groups and compare results. | |
| | **Evaluation** | Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. | Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. | Test and evaluate products against a detailed design specification and make adaptations as they develop the product. | Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others. |
| **Understand how key events and individuals in design and technology have helped shape the world.** | **Significant people** | Describe how key events in design and technology have shaped the world. | Explain how and why a significant designer or inventor shaped the world. | Describe the social influence of a significant designer or inventor. | Present a detailed account of the significance of a favourite designer or inventor. |
| **Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.** | **Structures** | Create shell or frame structures using diagonal struts to strengthen them. | | Build a framework using a range of materials to support mechanisms. | |
| **Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].** | **Mechanisms and movement** | Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products. | Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products. | | |
| **Understand and use electrical systems in their products [for example,** | **Electricity** | | Incorporate circuits that use a variety of | | Understand and use electrical circuits that incorporate a variety of |

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| **series circuits incorporating switches, bulbs, buzzers and motors].** | | | components into models or products. | | components (switches, lamps, buzzers and motors) and use programming to control their products. |
| **Apply their understanding of computing to program, monitor and control their products.** | **Use of IT** | | Write a program to control a physical device, such as a light, speaker or buzzer. | | Use a sensor to monitor an environmental variable, such as temperature, sound or light. |
| **Understand and apply the principles of a healthy and varied diet.** | **Healthy lifestyle** | Explain the importance and characteristics of a healthy, balanced diet. | | | |
| | **Nutrition** | Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars). | Design a healthy snack or packed lunch and explain why it is healthy. | Evaluate meals and consider if they contribute towards a balanced diet. | |
| **Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.** | **Food preparation and cooking** | Prepare and cook a simple savoury dish. | | Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish. | Follow a recipe that requires a variety of techniques and source the necessary ingredients independently. |
| **Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.** | **Origins of food** | Identify and name foods that are produced in different places. | | Describe what seasonality means and explain some of the reasons why it is beneficial. | |
| **Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.** | **Staying safe** | Use appliances safely with adult supervision. | | Explain the functionality and purpose of safety features on a range of products. | Demonstrate how their products take into account the safety of the user. |

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| **Critique, evaluate and test their ideas and product and the work of others.** | | | | | |