# N – 9 Curriculum DT - 2026-2027

| Autumn | Spring | Summer |
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| **Creating with Materials**<br>To use simple tools and techniques competently and appropriately.<br>-To use role play, simple narratives and natural materials to express themselves.<br>-To adapt and change work where necessary to create and change a picture or a model.<br>-To design a Rangoli pattern<br>-To learn the names of different tools and techniques that can be used to create art.<br>To experiment with creating different things and to be able to talk about their uses,<br>-To know how different colours and materials can be used to create things.<br><br>**Being Imaginative and Expressive**<br>-To invent, create, adapt and recount their individual creativity using appropriate resources.<br>-To know how to express their individual creativity.<br>-To know how to select the appropriate resources needed for the given task.<br><br>**Fine Motor Skills**<br>-To use a dominant hand.<br>-To be able to manipulate small resources and equipment effectively.<br>-To know how to use scissors effectively, | **Creating with Materials**<br>-To use a range of resources to create and change own props to aid role play.<br>-To create with a purpose in mind using a variety of resources.<br>-To manipulate materials to achieve a planned effect.<br>-To safely construct with a purpose in mind and evaluate their designs.<br>-To identify and select resources and tools to achieve a particular outcome,<br><br>**Being Imaginative and Expressive**<br>-To plan, carry out and evaluate and change where necessary<br><br>**Fine Motor Skills**<br>-To handle tools, objects, construction and malleable materials safely and with increasing control.<br>-To show some accuracy when drawing and writing.<br>-To know how to use scissors effectively | **Creating with Materials**<br>-To be able to share their creations, explaining the process they have used.<br>-To experiment with colour, design, texture, form and function.<br>-To know how to use props and materials when role playing characters in narratives and stories.<br>-To know how to use a variety of materials, tools and techniques safely.<br><br>**Being Imaginative and Expressive**<br>-To use role play to show how 'People who Help Us'<br><br>**Fine Motor Skills**<br>-To show accuracy and care when drawing.<br>-To know how to handle a range of equipment and tools effectively.<br>-To know how to apply the skills learnt to draw accurately and with care. |

Reception Skills  Reception Knowledge

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| KS1 | When designing and making, pupils should be taught to:<br>**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] | | | | | |

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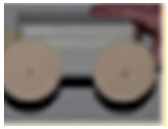
| | • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics<br>**Evaluate**<br>• explore and evaluate a range of existing products<br>• evaluate their ideas and products against design criteria<br>**Technical 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 & nutrition**<br>• use the basic principles of a healthy and varied diet to prepare dishes<br>• understand where food comes from. | | | | | |
| **Year 1**<br>I use my own ideas to make something.<br>I describe how something works.<br>I cut food safely.<br>I make a product which moves.<br>I make my model stronger.<br>I explain to someone else how I want to make my product.<br>I choose appropriate resources and tools.<br>I make a simple plan before making. | | **Mechanisms**<br>**Sliders and levers**<br>Design and produce a moving Christmas card. | | **Structures**<br>**Freestanding structures**<br>To design and make a bridge.<br> | | **Mechanisms**<br>**Wheels and axles**<br>Wheels of vehicles.<br>  |
| **Year 2**<br>I think of an idea and plan what to do next.<br>I choose tools and materials and explain why I have chosen them.<br>I join materials and components in different ways.<br>I explain what went well with my work.<br>I explain why I have chosen specific textiles.<br>I measure materials to use in a model or structure.<br>I describe the ingredients I am using. | **Textiles**<br>**Templates and joining techniques**<br>Joining fabric and sewing on a button. Include a basic running stitch.<br><br>Textiles Progression Document | | **Structures**<br>**Freestanding structures**<br>Design and make a lighthouse, exploring the suitability of different materials, manipulating materials and structural properties of materials. | | **Cooking & Nutrition**<br>**Preparing fruit and vegetables**<br>Design and make a healthy wrap. Complete taste test for different combinations of food. | |

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| | | | How can I make my structure stronger? | | | |
| KS2 | When designing and making, pupils should be taught to:<br>**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 & 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. | | | | | |
| Year 3<br>I prove that my design meets some set criteria.<br>I follow a step-by-step plan, choosing the right equipment and materials.<br>I design a product and make sure that it looks attractive.<br>I choose a material for both its suitability and its appearance.<br>I select the most appropriate tools and | | **Mechanisms**<br>**Pneumatics**<br>Pneumatics - (balloon and syringe) | | **Food**<br>**Healthy and varied diet**<br>Learn how ingredients combine together, seasonality - what is grown and how it tastes. Link to France. | **Textiles**<br>**2D shape to 3D shaped product**<br>Use the skills from Y1&2 including the running stitch, introducing the back- stitch and over sew stitch plus decorative skills such as applique to | |

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| techniques for a given task.<br>I make a product which uses both electrical and mechanical components.<br>I work accurately to measure, make cuts and make holes.<br>I describe how food ingredients come together. | | <br> | | | design and make an Egyptian themed mask.<br><br>Textiles Progression Document | |

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| **Year 4**<br>I use ideas from other people when I am designing.<br>I produce a plan and explain it.<br>I evaluate and suggest improvements for my designs.<br>I evaluate products for both their purpose and appearance.<br>I explain how I have improved my original design.<br>I present a product in an interesting way.<br>I measure accurately.<br>I persevere and adapt my work when my original ideas do not work.<br>I know how to be both hygienic and safe when using food. | **Food**<br>**Healthy and varied diet**<br>Adapt an existing recipe by adding or altering the ingredients for flat bread. Additional ingredients must be chopped using the bridge and claw method.<br><br>**Focus practical task**<br>Children try a range of food, measuring the ingredients carefully before deciding on final design. | | **Structures**<br>**Shell structures**<br>Construct a shell structure including nets - 3D modelling using Tinkercad<br><br> <br> | | | **Electrical systems**<br>**Simple circuits and switches**<br>Create a product that lights up or makes a sound by creating a simple series circuit within it, for example, a torch. |
| **Year 5**<br>I come up with a range of ideas after collecting information from different sources. | | **Mechanical systems**<br>**Pulleys and gears**<br>Design and make a fairground ride using wheels and pulleys. | **Electrical systems**<br>**More complex switches and circuits** | | **Food**<br>**Celebrating cultures and seasonality** | |

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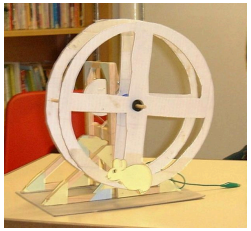
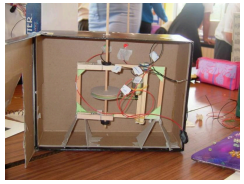
| I produce a detailed, step-by-step plan.<br>I suggest alternative plans; outlining the positive features and draw backs.<br>I explain how a product will appeal to a specific audience.<br>I evaluate appearance and function against original criteria.<br>I use a range of tools and equipment competently.<br>I make a prototype before making a final version.<br>I show that I can be both hygienic and safe in the kitchen. | |  | Develop handmade switches in order to make an electrical product. Add to Autumn 1 fairground ride to make it turn.<br>  | | Link to America - pizza. Explore the various styles of pizza and how Americans have developed pizza (Chicago, Detroit), then create my own by combining chosen ingredients. | |
| Year 6<br>I use market research to inform my plans and ideas.<br>I follow and refine my plans.<br>I justify my plans in a convincing way.<br>I show that I consider culture and society in my plans and designs.<br>I show that I can test and evaluate my products.<br>I explain how products should be stored and give reasons.<br>I work within a budget.<br>I evaluate my product against clear criteria. | **Textiles**<br>**Combining different fabric shapes**<br>Use a range of learned stitches for joining materials. Research use of lavender bags during WW2 & design and make one. Measure, cut and assemble fabric parts. Secure and extend decorative stitches.<br><br>Textiles Progression Document | | | **Mechanical systems**<br>**Cams**<br>Using CAMs to design and make a moving Victorian toy.<br> | | **Structures**<br>**Frame structures**<br>Make a Maya building. First build a frame then brace and strengthen the frame before finally cladding and decorating. |

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| KS3 | **During KS3 pupils will undertake Food, Textiles and Graphics in each year. They will study a term of each topic on rotation so at the end of the year they will have covered each topic.**<br>When designing and making, pupils should be taught to:<br>**Design**<br>● use research and exploration, such as the study of different cultures, to identify and understand user needs<br>● identify and solve their own design problems and understand how to reformulate problems given to them<br>● develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations<br>● use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses<br>● develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools<br>**Make**<br>● select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture<br>● select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties<br>**Evaluate**<br>● analyse the work of past and present professionals and others to develop and broaden their understanding<br>● investigate new and emerging technologies<br>● test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups<br>● understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists<br>**Technical knowledge**<br>● understand and use the properties of materials and the performance of structural elements to achieve functioning solutions<br>● understand how more advanced mechanical systems used in their products enable changes in movement and force<br>● understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]<br>● apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].<br>**Cooking & nutrition**<br>● understand and apply the principles of nutrition and health<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]<br>● understand the source, seasonality and characteristics of a broad range of ingredients. | | | | | |

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| Students work on a 13 week carousel and will complete 2 half terms in each subject. | | | | | | |
| Year 7 | **Food**<br>**Healthy eating**<br>Understanding the Eatwell guide and the 8 tips for healthy eating. Cooking everyday food.<br>Learn how to cook everyday food **(Ent Curr)**<br><br>Pupils will cook: Coleslaw, tomato soup, pasta gratin, cheese scones, apple crumble, curry and small cakes. | | **Textiles**<br>Learn how to carry out a range of hand embroidery stitches. Learn how to sew on a button.<br>Design and make a mascot whilst working through the design process. Themes for mascot at teacher discretion depending on current year - previous subjects include house mascots, World / European Cup, Olympics, Kawaii inspired food etc.<br>Pupils will use the embroidery stitches to join fabrics as applique and make a three dimensional product.<br>Textiles theory - classification of fibres and fabrics, textiles properties, sustainability, fast fashion.<br>Learn how to sew (**Ent Curr)** | | **Graphics**<br>Design, Develop and produce a gift toy to be given away in a happy meal.<br>Cubee characters are made up of different sized boxes. Students must design a set of unique superheroes or supervillains.<br>Drawing techniques and rendering will be introduced and students will develop their ideas through three dimensional drawing.<br>Students will be introduced to Adobe Illustrator and develop their designs using this software.<br>Students will develop a logo and symbol to brand their character and finally students will develop skills in typography and layout to create an advertising poster. | |
| Year 8 | **Food**<br>**Diet and health**<br>Understanding nutrients - function and source. Learning to cook a range of everyday dishes that link to the nutrients. Energy balance and link to diet and health.<br>Learn to cook a range of sweet and savory dishes.<br>Pupils will cook: Pizza / calzone (including the bread base), macaroni cheese, Victoria Sponge cake, bounty curry, sweet scones, bolognese. | | **Textiles**<br>**Tie dye cushion project inspired by the Mexican Day of the Dead festival**<br>Pupils research the festival and create an inspiration board with facts and images.<br>Pupils then work on modeling a range of decorative techniques to assist the creation of a range of design ideas - transfer print, fabric pen, fabric crayon, applique, hand embroidery.<br>Pupils learn how to independently use the sewing machine in order to carry out some decorative techniques such as free machine embroidery and applique. | | **Graphics**<br>**Design and make a mobile phone holder using Adobe Illustrator – CAD Cam**<br>Designs inspired by monsters. Pupils work through the design process to research a product, analyse design features and what makes a good design. Pupils learn how to use computers to create a design using Adobe Illustrator.. Cardboard prototype made to test out the chosen design.<br>Individual designs made using CAM and the laser cutter/vinyl cutter.<br>Students will develop a logo to brand and advertise their final outcome | |

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| | | | Pupils will then create tie dye fabric designs and turn them into cushions inspired by the Day of the Dead festival. | | | |
| Year 9 | **<u>Food</u>**<br>**Diet Through Life**<br>Pupils will learn about nutritional requirements of each life stage in order to gain more experience of cooking for different ages that may be in families.<br>They will continue to cook a range of mostly savory dishes - developing their range of cooking skills / complexity of dishes.<br>They will also learn about food assurance schemes and understanding packaging labels / linked to nutrition and daily requirements.<br>Pupils will cook a range of dishes such as: savory rice, wholemeal pastry and vegetable pasties. | | **<u>Textiles</u>**<br>**Places and Spaces.**<br>**Textiles embellishment and decorative techniques inspired by artists and culture.**<br>Pupils will undertake research into decorative techniques and artists to investigate the theme of places and spaces. Pupils will then focus on modeling and experimenting with a range of decorative techniques such as applique, reverse applique, couching, shibori tie dye, plastic bonding.<br>They will use the sewing machine and look at health and safety aspects of practical work. They will also undertake some hand embroidery tasks.<br>Once students have completed a range of techniques they will undertake independent work to create a range of stitched postcards to show “Places and Spaces” | | **<u>Graphics</u>** .<br><br>**Magazine cover and Magazine Logo**<br>Pupils will design and develop the front cover of a magazine Inspired by the artist Shepherd Fairey. students will pick the name, theme and cover star. They will develop Adobe photoshop skills and will learn about typography and layout in order to produce a successful final outcome.<br>A final logo will be developed for the magazine using Adobe Illustrator and added to the cover.<br>Pupils will experiment with backgrounds including collage. | |
| In Year 10 students can choose from either Hospitality and Catering, Art Textiles, Photography or Graphic Design | | | | | | |