**Moredon Primary and Nursery School **

**Subject Overviews, Long term planning 2024-2025**

**Subject area**: DT

***Whole School Intent:*** *At Moredon Primary and Nursery School we have a text based, knowledge led curriculum. Children have the opportunity to learn new skills deepened by a wide ranging curriculum enrichment offer. When children leave Moredon Primary and Nursery School we have set them on the path to being life-long learners, ready for the next stage with high aspirations for their future.*

***DT Intent:*** *By the end of their time at Moredon Primary and Nursery School, we want* to stimulate the children’s curiosity and to ask thought provoking questions which will support the pupils’ in their learning journey and instil a breadth of knowledge, skills and understanding to take them to new horizons.

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|  | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Term 1 | *Throughout the Reception year, the children will be exposed to a range of materials and media with suggested activities to complete from staff.*  ***Expected -***  Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;  Share their creations, explaining the process they have used;  - Make use of props and materials when role playing characters in narratives and stories. | To master practical skills  Food  • Cut, peel or grate ingredients safely and hygienically. | Materials  Measure and mark out to the nearest centimetre.  Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).  Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen  Use materials to for drilling, screwing, gluing and nailing materials to make and strengthen products. |  | . | Construction Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding). | Textiles  Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as as oft decoration for comfort on a cushion).  To design, make, evaluate and improve  Evaluate  Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.  • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).  • Create innovative designs that improve upon existing products |
| Term 2 | To master practical skills  Food  Cooking  Assemble or cook ingredients |  | Construction  Choose suitable techniques to construct products or to repair items.  Textiles  Understand the need for a seam allowance.  Join textiles with appropriate stitching.  To design, make, evaluate and improve  Design with purpose by identifying opportunities to design.  Make products by working efficiently (such as by carefully selecting materials). | **Construct**  Measure and mark out to the nearest millimetre.  Select appropriate joining techniques.  Select the most appropriate techniques to decorate textile Refine work and techniques as work progresses, continually evaluating the product design.  Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears). | Textiles: Create objects that allow a seam allowance (join using stitching) |  |
| Term 3 | Construction  Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. | Mechanics  Create products using levers, wheels and winding mechanisms  Materials  Measure and mark out to the nearest centimetre.  Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).  Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). |  | To master practical skills  Food  Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).  Measure ingredients to the nearest gram accurately. | Mechanics  Convert rotary motion to linear using cams.  Use innovative combinations of electronics (or computing) and mechanics in product designs. | To master practical skills  Food  Cooking and nutrition  Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. (linked to chocolate)  •Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).  • Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.  •Create and refine recipes, including ingredients, methods, cooking times and temperatures. |
| Term 4 | Textiles  Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing). | Textiles  • Shape textiles using templates.  • Join textiles using running stitch. Suggest improvements to existing designs.  • Explore how products have been created.  Explore objects and designs to identify likes and dislikes of the designs.  Suggest improvements to existing designs.  Explore how products have been created. | To master practical skills  Food  Prepare ingredients hygienically using appropriate utensils.  Follow a recipe. | Textiles  Select the most appropriate techniques to decorate textiles | To take inspiration from design throughout history Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. |  |
| Term 5 | Electricals and electronics  Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage). |  |  |  | Materials  Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).  To design, make, evaluate and improve  Make products through stages of prototypes, making continual refinements.  Ensure products have a high quality finish, using art skills where appropriate. |  |
| Term 6 | To design, make, evaluate and improve  Design products that have a clear purpose and an intended user Use software to design. | Electricals and electronics  Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).  Model designs using software.  Make products, refining the design as work progresses.  Use software to design. | To take inspiration from design throughout history  Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.  Materials  Cut materials accurately and safely by selecting appropriate tools.  Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). | Electricals and electronics  Create series and parallel circuits  •Create series and parallel circuits  •Design with purpose by identifying opportunities to design.  •Make products by working efficiently (such as by carefully selecting materials).  •Cut materials accurately and safely by selecting appropriate tools  To design, make, evaluate and improve  Design  generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | To master practical skills  Food  Demonstrate a range of baking and cooking techniques- both. | Electricals and electronics  Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).  Write code to control and monitor models or products  **Construction**  •Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).  •Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).  •Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.  •Evaluate the design of products so as to suggest improvements to the user experience.  Computing  Evaluate  investigate and analyse a range of existing products  Technical knowledge  apply their understanding of computing to program, monitor and control their products. |