**Design Technology Curriculum 2024-25**

**Curriculum Intent**

**Design Technology is an inspiring, rigorous and practical subject. We aim to inspire children to be the best they can in the world of work; builders, engineers, architects, chefs. Design Technology encourages children to think creatively to solve problems and where possible, is linked to maths, science, IT and art.**

**During lessons we aim to build confidence, knowledge and practical capability. Learn about Health and Safety and protective measures. We do this by developing design and making skills through using a wide range of tools and materials to create products of a high standard through learning about properties of different materials, different processes and the principles of nutrition, healthy eating and how to cook. Thus develop an interest and understanding of technical processes, evaluation and be confident enough to self-reflect.**

**Cooking is currently provided by ‘Apple Of My Eye’.**

**Projects within terms may have an either or option, this allows for pupils that move class or stay in the same class for two years to avoid making the same project twice.**

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| **Technical knowledge** | **Resistant Materials Making** | **Product Design** | **Graphical Drawing** |

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| Y7 | Autumn 1 | Autumn 2 | Spring | Summer 1 | Summer 2 |
| Content | Totem Pole / Train Wood Project  (tools, machinery) | Christmas wood and plastic project  ( Tree / Bauble ) | Door Plaque / Photo Frame  (CAD, wood & plastic) | Automata (Cams) | Graphical Drawing  (perspective) |
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| Knowledge | Understand Health and Safety in the workshop  To know different types of materials  Identify and use different tools.  Use machinery in workshop | Christmas project using skills learnt in Autumn 1 | Use CAD to design a project.  Prepare a wood base for shield  OR  Use CAD to cut out a frame | Use Cams to make a moving toy. | Draw freehand parallel lines (vertical, horizontal, oblique)  Draw in perspective |
| Assessment | Behave in a safe manner in the workshop  Begin to Use tools and machinery correctly and safely  Name some of the tools used |  | Complete part of the design process | Cams used to change rotary movement to reciprocal movement. | Draw straight lines accurately.  Use vanishing point in perspective. |

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| Y8 | Autumn 1 | Autumn 2 | Spring | Summer 1 | Summer 2 |
| Content | Clock / Steady Hand Game  (tools, machinery) | Christmas  (Angel /Nativity) | Jewellery  (Copper Enamelling / Pewter Casting) | Storage Box (hand tools) | Graphical Drawing  (3D / Perspective / shading) |
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| Knowledge | Make a clock out of plastics and insert a mechanism.  OR  Make a steady hand game using electric circuit. | Use electric circuit and CAD/CAM to produce a Christmas light up product | Use enamelling powder and kiln to make a piece of jewellery.  OR  Use CAD/CAM to make mould and cast a medal/key ring. | Create box using Dovetails. | Perspective, cylinders and shading. |
| Assessment | Describe some properties of plastics / metals  Create a working electric circuit |  | Make a piece of jewellery using enamelling or pewter | Accuracy in marking and cutting joints. | Can draw shapes made up of multiple rectangles and cylinders with shading. |

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| Y9 | Autumn 1 | Spring | Summer 1 |
| Content | Small Furniture  (tools, machinery) | Balancing Man  (Metal) | DIY Skills |
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| Knowledge | Use mortice and tenon joints in wood to make a small piece of furniture such as footstool or table. | Cut and shape metal.  Join different pieces together using tap and die and by brazing. | Undertake a series of DIY tasks that can be completed at home. |
| Assessment | Use tools and machinery safely to mark out and cut mortice and tenon joints | Make a toy that balances out of metal by lowering the centre of gravity around the fulcrum. | Undertake a variety of DIY projects that can be carried out around the home. |