Design Technology Long Term Plan

Class 4 ( Year 5&6 )

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|  | Autumn 2 | Spring 1  Electrical systems: Doodlers  This unit builds on pupils' knowledge of how to incorporate electrical circuits into products from Y4. Children explore how circuits can be adapted to suit different purposes, explore series circuits and recreate one using conductive adhesive tape. They then apply this knowledge to design and create a robotic doodling device. | Summer 1 |
| 2023 – 2024 | Mechanical systems: Automata toys  Using woodworking materials and skills, pupils construct a window display using an automata mechanism; measuring and cutting their materials, assembling the frame, choosing cams, designing the characters that sit on the followers and also finishing with a foreground and background. | Structure: To create a model of a structure.  This topic draws upon pupils’ skills and knowledge of structures, challenging them to design and create a model of a new structure which will have specific features. Creating a footprint as the base, pupils can practise visualising objects in plain view and also get creative with their use of natural features and cladding for their structures  Children develop their 3D CAD skills by learning how to navigate the Tinkercad interface and essential tools to combine multiple objects. (Computing) |
| 2024 – 2025 | Food: What could be healthier?  Focusing on nutrition, children research and modify a traditional bolognese sauce recipe to make it healthier. They will cook their new and improved versions, making appropriate packaging and also learn about the ethical considerations of farming cattle. | Textiles: To use a pattern to make a stuffed toy  Using the skills they’ve developed over the past few years, children select fabrics, use templates, pin, decorate and stitch to create a product. | Digital world: Monitoring devices  Applying Computing knowledge and understanding to program a Micro: bit animal monitoring device that will support animal care and alert their owners when the temperature is not optimal using sound and an LED. (Computing) Summer 2 |