

Design and Technology Curriculum Year Group Overview

Year 1		Mechanisms Making a moving storybook Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates.		Structures Constructing a windmill Inspired by the song, 'Mouse in a windmill', design and construct a windmill for a client (mouse) to live in. Explore various types of windmill, how they work and their key features.	Food Fruit and vegetables Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie and accompanying packaging.	
Year 2	Balanced Diet Learn about the food groups (carbohydrates, proteins, fruits and vegetables, dairy, oils and spreads) to understand a balanced diet to develop a healthy wrap.		Pouches Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.		Mechanisms: Making a moving Monster Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster.	
Year 3		Food: eating seasonally Establish and use design criteria to help test and review dishes • Describe the benefits of seasonal fruits and vegetables and the impact on the environment •	<i>(OR Structures: constructing a castle – link to English)</i>	Structures: constructing a castle Design a castle with key features to appeal to a specific person/purpose • Draw and label a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours •	Pneumatic toys Create a pneumatic system to create a desired motion • Build secure housing for a pneumatic system • Use syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy •	.
Year 4	Adapting a recipe Work in groups to adapt an existing biscuit recipe, whilst taking into account the cost of the ingredients and other expenses against a set budget.			Pavilions Investigate and model frame structures to improve their stability, then apply this research to design and create a	Making a Slingshot Car Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets.	

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				stable, decorated pavilion.		
Year 5		Mechanical Systems – Pop-up book Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms.		Structure Bridges Test and analyse various types of bridge to determine their strength and stability. Explore material properties and sources, before marking, sawing and assembling a wooden truss bridge.	Food – what could be healthier? Discover the farm to fork process, understand the key welfare issues for rearing cattle. Compare the nutritional value of existing sauces and develop a healthier recipe.	
Year 6		Structure: Playgrounds This topic draws upon the children's knowledge of structures, challenging them to design playground apparatus.	Electrical Systems: Steady Hand Games Using understanding of electrical systems and design, pupils are challenged with designing and creating a steady hand game.		Food: Come Dine With Me Children research and prepare a three-course meal	Dimensions: Design & Make A waste & pollution Educational board game