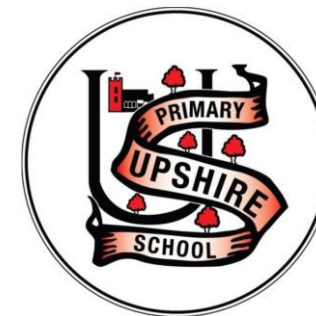


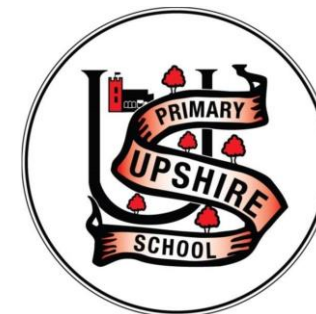
Design and Technology Curriculum Overview

Reception	Structures	Cooking & Nutrition	Textiles	Structures
	<p>Junk modelling Exploring materials through junk modelling, children develop their scissor skills and awareness of different materials and joining techniques. Children begin to make verbal plans and material choices before starting and problem solve while making their model.</p>	<p>Soup Learning about vegetables and where they come from while preparing to make a soup. Children describe the taste of a range of vegetables and design a soup recipe as a class. They practise cutting skills and prepare the vegetables for their class soup before testing the final product.</p>	<p>Bookmarks Developing fine motor skills through a range of threading activities before moving on to use binka and a needle. Children design a bookmark, considering what to include and why and then follow their designs to complete their bookmarks.</p>	<p>Boats Considering the properties of materials through water play, children discover which materials are waterproof and whether they float or sink. Children evaluate a variety of boats and use their new-found knowledge to design and make a boat that is waterproof and floats.</p>



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	Autumn	Spring	Summer
Year 1	<p>Textiles Puppets (4 lessons)</p> <p>Explore different ways of joining fabrics before creating hand puppets based upon characters from a well-known fairytale. Develop technical skills of cutting, glueing, stapling and pinning</p>	<p>Structures/ Mechanisms Constructing a windmill (4 lessons)</p> <p>Construct a windmill to complete a request from a user. Develop an understanding of different types of windmill, how they work and their key features. Begin to use technical skills such as making evenly spaced cuts and adding weight to ensure a successful structure.</p>	<p>Mechanisms Wheels and axles (4 lessons)</p> <p>Learn about the main components of a wheeled vehicle. Develop understanding of how wheels, axles and axle holders work; problem-solve why wheels won't rotate; to design and build their own vehicle designs.</p>
Year 2	<p>Structures Baby bear's chair (4 lessons)</p> <p>Using the tale of Goldilocks and the Three Bears as inspiration, pupils help Baby Bear by making him a brand-new chair, exploring different shapes and materials. When designing the chair, they consider his needs and what he likes.</p>	<p>Mechanisms Fairground Wheel (5 lessons)</p> <p>Design and create a functional fairground wheel, consider how the different components fit together so that the wheel rotates and the structure stands freely. Select appropriate material properties and develop their cutting and joining skills. Research existing structures and survey to further inform the design.</p>	<p>Cooking and nutrition Balanced diet (6 lessons)</p> <p>Explore and learn what forms a balanced diet, pupils will taste test ingredient combinations from different food groups that will inform a wrap design of their choice which will include a healthy mix of protein, vegetables and dairy.</p>
Year 3	<p>Mechanical systems Pneumatic toys (4 lessons)</p> <p>Design and create a toy with a pneumatic system, learning how trapped air can be used to create a product with moving parts. Pupil are introduced to thumbnail sketches and exploded diagrams.</p>	<p>Electrical systems Electric poster (4 lessons)</p> <p>An introduction to information design and electrical systems, pupils create an electric poster using a basic circuit to develop a museum display about The Romans.</p>	<p>Textiles Cross stitch and appliqué (4 lessons)</p> <p>Cushions or Egyptian collars. Introduce two new skills to add to the pupils' repertoire: cross stitch and appliqué. Pupils apply their knowledge to the design, decoration and assembly of their own cushions or Egyptian collars</p>
Year 4	<p>Cooking and nutrition Adapting a recipe (6 lessons)</p> <p>Work in groups to adapt a simple biscuit recipe, to create a biscuit suited to a chosen target audience. They</p>	<p>Electrical systems Torches (4 lessons)</p> <p>Pupils apply their scientific understanding of electrical circuits to create a torch made from recycled and</p>	<p>Structure Pavilions (4 lessons)</p> <p>Exploring pavilion structures, learning about what they are used for and investigate how to create strong and stable</p>



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	ensure that their creation comes within a given budget of overheads and ingredients.	reclaimed materials and objects. They design and evaluate their product against set design criteria	structures before designing and creating their own pavilions, complete with cladding.
Year 5	<p>Textiles Stuffed toys (4 lessons) Create a stuffed toy by applying skills learnt in previous units. Introduce blanket stitch.</p>	<p>Mechanical systems Making a pop-up book (4 lessons) Create a four-page pop-up story book design, incorporating a range of functional mechanisms that use levers, sliders, layers and spacers to give the illusion of movement through interaction</p>	<p>Structures Bridges (4 lessons) After learning about various types of bridges and exploring how the strength of structures can be affected by the shapes used, create their own bridge and test its durability - using woodworking tools and techniques.</p>
Year 6	<p>Cooking and nutrition Come dine with me (6 lessons) Research and prepare a three-course meal and taste-test and score their food. Research the journey of their main ingredient from 'farm to fork' and write a favourite recipe.</p>	<p>Mechanical systems Automata toys (4 lessons) Use woodworking skills, pupils construct an automata; measuring and cutting their materials, assembling the frame, choosing cams and designing the characters that sit on the followers to form an interactive shop display.</p>	<p>Electrical systems Steady hand game (4 lessons) Design and create a steady hand game, use nets to create the bases and apply knowledge of electrical circuits to build an operational circuit with a buzzer that completes the circuit when the handle makes contact with the wire.</p>