

Year Group	Autumn	Spring	Summer
Year 1	<p><u>Structures: Constructing A Windmill</u></p> <p>Design and construct a windmill for a client to live in. Explore various types of windmill, how they work and their key features.</p>	<p><u>Textiles: Puppets</u></p> <p>Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating.</p>	<p><u>Cooking and nutrition: Smoothies</u></p> <p>Preparing foods by cutting and juicing and selecting fruits and vegetables to create a smoothie to meet a design brief.</p>
Year 2	<p><u>Mechanisms: Making a Moving Monster</u></p> <p>Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster.</p>	<p><u>Structures: Baby Bear's Chair</u></p> <p>Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.</p>	<p><u>Cooking/Nutrition: Balanced Diet</u></p> <p>Learn about the importance of a balanced diet and use that knowledge to create a tasty wrap.</p>
Year 3	<p><u>Mechanical Systems: Pneumatic Toys</u></p> <p>Explore pneumatic systems, then apply this understanding to design and make a pneumatic toy including thumbnail sketches and exploded diagrams.</p>	<p><u>Textiles: Cross Stitch and Appliqué</u></p> <p>Learn and apply two new sewing techniques – cross-stitch and appliqué. Utilise these new skills to design and make a cushion.</p>	<p><u>Cooking and nutrition: Eating seasonally</u></p> <p>Learning about seasonal foods and using their understanding to create a seasonal food tart.</p>
Year 4	<p><u>Structures: Pavilions</u></p> <p>Investigate and model frame structures to improve their stability, then apply this research to design and create a stable, decorated pavilion.</p>	<p><u>Mechanical Systems: Making a Slingshot Car</u></p> <p>Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets.</p>	<p><u>Cooking/Nutrition: Adapting a Recipe</u></p> <p>Opportunities for children to learn a basic biscuits recipe and adapt it to suit a target audience.</p>
Year 5	<p><u>Structures: Bridges</u></p> <p>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.</p>	<p><u>Mechanical Systems: Making a Pop-up Book</u></p> <p>Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms.</p>	<p><u>Cooking/Nutrition: Developing a Recipe</u></p> <p>Opportunities for children to learn a simple bolognese recipe and adapt it to improve nutritional content.</p>
Year 6	<p><u>Structures: Playgrounds</u></p> <p>Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria.</p>	<p><u>Mechanical Systems: Automata Toys</u></p> <p>Develop a functional automata window display, to meet the requirements in a design brief. Explore and create cam, follower and axle mechanisms to mimic different movements.</p>	<p><u>Cooking/Nutrition: Come Dine with Me</u></p> <p>Develop a three-course menu focused on three key ingredients, as part of a paired challenge to develop the best class recipes. Explore each key ingredient's farm to fork process.</p>