

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		Food - Fruit and Vegetables (3 weeks) <ul style="list-style-type: none"> Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie and accompanying packaging. Mechanisms <ul style="list-style-type: none"> Making a moving story book (3 weeks) Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates. 		Textiles - Puppets (6 weeks) <ul style="list-style-type: none"> Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating. Example theme: Storybook character. Alternative theme: Easter animals 		Mechanisms - Wheels and axles (6 weeks) <ul style="list-style-type: none"> Learn about the key parts of a wheeled vehicle, to develop an understanding of how wheels, axles and axle holders work. Design and make a moving vehicle
Year 2		Mechanisms - Fairground Wheel (6 weeks) <ul style="list-style-type: none"> Design and create a functional Ferris wheel, learn how different components fit together so that the wheel rotates and the structure stands freely. 		Structures - Baby Bear's Chair (6 weeks) <ul style="list-style-type: none"> Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use. 		Textiles - Pouches (6 weeks) <ul style="list-style-type: none"> Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.
Year 3		Pneumatic toys (4 lessons) <ul style="list-style-type: none"> Design and create a toy with a pneumatic system, learning how trapped air can be used to create a product with moving parts. Pupils are introduced to thumbnail sketches and exploded diagrams. (Moving Monsters) 		Food - Eating seasonally (6 weeks) <ul style="list-style-type: none"> Learn about various fruits and vegetables, and when, where and why they are grown in different seasons. Discover the relationship between colour and health benefits. 		Structures - Constructing a castle (6 weeks) <ul style="list-style-type: none"> Identify and learn about the key features of a castle, before designing and making a recycled-material castle (structure).

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Year 4		Mechanical Systems - Making a slingshot car (6 weeks) <ul style="list-style-type: none"> Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets 		Structures Pavilions (6 weeks) <ul style="list-style-type: none"> Investigate and model frame structures to improve their stability, then apply this research to design and create a stable, decorated pavilion 		Textiles - Fastenings (6 weeks) <ul style="list-style-type: none"> Analyse and evaluate a range of existing fastenings, then devise a list of design criteria to design, generate templates and make a fabric book sleeve.
Year 5		Mechanical Systems - Making a pop-up book (6 weeks) <ul style="list-style-type: none"> Create a functional four-page pop-up storybook design, using levers, sliders, layers and spacers to create paper-based mechanisms. 		Food - What could be healthier? (6 weeks) <ul style="list-style-type: none"> 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. 		Structures - Bridges (6 weeks) <ul style="list-style-type: none"> 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.
Year 6		Structures - Playgrounds (6 weeks) <ul style="list-style-type: none"> Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria. 		Textiles - Waistcoats (6 weeks) <ul style="list-style-type: none"> Using a combination of textiles skills such as attaching fastenings, appliqué and decorative stitches, children design, assemble and decorate a waistcoat for a chosen purpose. 		Electrical Systems Steady hand game (6 weeks) <ul style="list-style-type: none"> Understand what is meant by fit for purpose design and form follows function. Design and develop a steady hand game using a series circuit, including housing and backboard.