

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		<u>Food</u> <u>Fruit and Vegetables [3 weeks]</u> Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie and accompanying packaging. <u>Mechanisms</u> 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.		<u>Textiles</u> <u>Puppets [6 weeks]</u> 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		<u>Mechanisms</u> <u>Wheels and axles [6 weeks]</u> 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		<u>Mechanisms</u> <u>Moving Monsters [6 weeks]</u> Design and create a moving monster, learn how different components fit together so that parts of the monster moves.		<u>Structures</u> <u>Baby Bear's Chair [6 weeks]</u> Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.		<u>Textiles</u> <u>Pouches [6 weeks]</u> Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.
Year 3		<u>Pneumatic toys (4 lessons)</u> 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]		<u>Food</u> <u>Eating seasonally [6 weeks]</u> 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.		<u>Structures</u> <u>Constructing a castle [6 weeks]</u> Identify and learn about the key features of a castle, before designing and making a recycled-material castle (structure).
Year 4		<u>Mechanical Systems</u> <u>Making a slingshot car [6 weeks]</u> Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets.		<u>Structures</u> <u>Pavilions [6 weeks]</u> Investigate and model frame structures to improve their stability, then apply this research to design and create a stable, decorated pavilion.		<u>Textiles</u> <u>Fastenings [6 weeks]</u> 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		<u>Mechanical Systems</u> <u>Making a pop-up book [6 weeks]</u> Create a functional four-page pop-up storybook design, using levers,		<u>Food</u> <u>What could be healthier? [6 weeks]</u>		<u>Structures</u> <u>Bridges [6 weeks]</u> Test and analyse various types of bridge to determine their strength

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		sliders, layers and spacers to create paper-based mechanisms.		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.		and stability. Explore material properties and sources, before marking, sawing and assembling a wooden truss bridge.
Year 6		<u>Structures</u> <u>Playgrounds [6 weeks]</u> Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria.		<u>Textiles</u> <u>Waistcoats [6 weeks]</u> 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.		<u>Electrical Systems</u> <u>Steady hand game [6 weeks]</u> 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.