

Milby Primary School



Design and Technology – whole school overview

	<i>Autumn 1</i>	<i>Autumn 2</i>	<i>Spring 1</i>	<i>Spring 2</i>	<i>Summer 1</i>	<i>Summer 2</i>
EYFS	All about me: Me and my family	Exploring maps Festivals and celebrations	Around the world Shanghai, China	Dinosaurs	Growing	Outdoor adventures
	Fruit and vegetable tasting and evaluating (Food evaluation)		Design and make a place to live suitable for a certain country/region. (Structures)			Design and make a vehicle for a pirate to sail across the sea using a range of tools and materials.
Children are given opportunities to: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG) Share their creations, explaining the process they have used (ELG) Children have daily access to construction equipment both indoors and out, such as lego, knex, large building blocks and engineering kits. They also have access to the creative area with a variety of materials and tools. Designing and making projects are planned in line with current topics and the children's interests.						
Year 1		Free standing structures		Preparing fruit		Wheels and axles
		Know how to make freestanding structures stronger, stiffer and more stable. Know and use technical vocabulary relevant to the project.		Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes.		Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Know and use technical vocabulary relevant to the project.

				Know and use technical and sensory vocabulary relevant to the project.		
Year 2		Levers and sliders		Preparing fruit and vegetables		Textiles – template joining
		Explore and use sliders and levers. Understand that different mechanisms produce different types of movement. Know and use technical vocabulary relevant to the project.		Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the eatwell plate.		Understand how simple 3D textile products are made, using a template to create two identical shapes. Understand how to join fabrics using different techniques e.g. running stitch, glue, overstitch, stapling. Explore different finishing techniques, e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. Know and use technical vocabulary relevant to the project.
Year 3		Healthy and varied diet		Mechanisms – levers and linkages		Simple circuits and switches
		Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.		Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project.		Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. Apply their understanding of computing to program and control their products.

						<i>Know and use technical vocabulary relevant to the project.</i>
Year 4		2D shape to 3D product		Shell structures		Healthy and varied diet
		<i>Know and use relevant technical and sensory vocabulary appropriately.</i> <i>Know how to strengthen, stiffen and reinforce existing fabrics.</i> <i>Understand how to securely join two pieces of fabric together.</i> <i>Understand the need for patterns and seam allowances.</i> <i>Know and use technical vocabulary relevant to the project.</i>		<i>Develop and use knowledge of how to construct strong, stiff shell structures.</i> <i>Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</i> <i>Know and use technical vocabulary relevant to the project.</i>		<i>Know how to use appropriate equipment and utensils to prepare and combine food.</i> <i>Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.</i> <i>Know and use relevant technical and sensory vocabulary appropriately.</i>
Year 5		Frame structures		Celebrating culture and seasonality		Pulleys or gears
		<i>Understand how to strengthen, stiffen and reinforce 3-D frameworks.</i> <i>Know and use technical vocabulary relevant to the project.</i>		<i>Know how to use utensils and equipment including heat sources to prepare and cook food.</i> <i>Understand about seasonality in relation to food products and the source of different food products.</i>		<i>Understand that mechanical and electrical systems have an input, process and an output.</i> <i>Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.</i>

				Know and use relevant technical and sensory vocabulary.		Know and use technical vocabulary relevant to the project.
Year 6		Combining different fabric shapes		More complex switches and circuits		Key events and individuals
		A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Fabrics can be strengthened, stiffened and reinforced where appropriate.		Understand and use electrical systems in their products. Apply their understanding of computing to program, monitor and control their products. Know and use technical vocabulary relevant to the project.		Understand how key events and individuals in design and technology have helped shape the world.