

## DESIGN & TECHNOLOGY LONG TERM PLAN: 2024- 2025

	Term 1 and 2		Term 3 and 4		Term 5 and 6	
Year R	Let's Explore	Marvellous Machines	Long Ago	Ready Steady Grow	Creep, Crawl and Wiggle	On the Beach
	<p>Construct simple structures and models using a range of materials.</p> <p>Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products.</p> <p>Explore, build and play with a range of resources and construction kits with wheels and axles.</p>	<p>Explore, build and play with a range of resources and construction kits with wheels and axles.</p> <p>Describe what, why and how something was made and compare with others.</p> <p>Manipulate malleable materials into a variety of shapes and forms using their hands and other simple tools.</p>	<p>Construct simple structures and models using a range of materials.</p> <p>Explore, build and play with a range of resources and construction kits with wheels and axles.</p> <p>Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products.</p>	<p>Adapt and refine their work as they are constructing and making.</p> <p>Explore, build and play with a range of resources and construction kits with wheels and axles.</p> <p>Manipulate malleable materials into a variety of shapes and forms using their hands and other simple tools.</p>	<p>Adapt and refine their work as they are constructing and making.</p> <p>Share their creations with other, explaining their intentions and the techniques and tools they have used.</p> <p>Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products.</p>	<p>Manipulate malleable materials into a variety of shapes and forms using their hands and other simple tools.</p> <p>Adapt and refine their work as they are constructing and making.</p> <p>Construct simple structures and models using a range of materials.</p> <p>Cut, tear, fold and stick a range of paper and fabrics.</p>
Year 1	Childhood		Bright Lights, Big City		School Days	
	Shade and shelter - Investigating existing products; Designing and making shelters and dens; Prototypes; Safety rules; Materials		Taxi – mechanisms –wheels, axles, chassis and how they work together to make a vehicle move.		Chop, slice and mash – sources of food, food preparation, hygiene, design and make a supermarket sandwich according to a specific design criteria.	
Year 2	Movers and Shakers		Magnificent Monarchs		Coastlines	
	Remarkable recipes - Sources of food; Kitchen tools; Reading recipes; Hygiene rules; Making a school meal		Beach hut - Making and strengthening structures, including different ways of joining materials. Cut, stitch and join - Everyday fabric products; Significant designer – Cath Kidston; Sewing patterns; Running stitch; Adding embellishments; Designing and making a bag tag Push and pull - Machines and mechanisms; Sliders, levers and linkages; Designing and making greetings cards with moving parts.		Beach hut - Making and strengthening structures, including different ways of joining materials.	
Year 3	Through the Ages		Rocks, Relics and Rumbles		Emperors and Empires	
	Cook well, Eatwell - Food groups; Eatwell guide; Methods of cooking; Cooking appliances; Hygiene rules; Making a taco filling according to a specific design criteria.		Making it move - Cam mechanisms; Designing and making automaton toys; Cutting, joining, strengthening and finishing.		Greenhouse - Features of greenhouses; Significant designers – Sir Joseph Paxton and Sir Nicholas Grimshaw; Strengthening techniques; Using tools and safety rules; Properties of materials; Constructing strong frameworks.	
Year 4	Invasion		Misty Mountain, Winding River		Ancient Civilisations	
	Fresh food, good food - Food preservation techniques; Exploring food packaging; Prototypes; Designing, making and packaging healthy snacks		Mountain climbing equipment Functional and fancy fabrics - Fabrics; Design features; Significant designer – William Morris; Stitching a hem; Embellishment; Designing and making patterned and embellished fabrics		Tomb builders - Simple and compound machines Electrical circuits and conductors - Making switches; Programmable technologies; Programming a micro:bit; Designing and making a nightlight; Incorporating programming and circuits in products	
Year 5	Dynamic Dynasties		Sow, Grow and Farm		Groundbreaking Greeks	
	Moving Mechanisms - Pneumatic systems; Joining and finishing; Iterative design process; Building pneumatic machine prototypes		Eat the Seasons - Cooking; Nutrition The meaning and benefits of seasonal eating, including food preparation and cooking techniques.		Architecture - Architecture over time; Greek architecture; Structural support, stiffness and stability; Computer-aided design; Building design	
Year 6	Britain at War		Frozen Kingdoms		Maafa	
	Make Do and Mend - Investigating clothing; Sewing – running stitch, whip stitch and blanket stitch; Repairing clothes; Making products from recycled materials		Engineer - Significant engineers and bridges; Features of bridges; Strengthening techniques; Iterative design; Building prototypes		Food for life - processed food and healthy food choices. They make bread and pasta sauces and learn about the benefits of whole foods. They plan and make meals as part of a healthy daily menu, and evaluate their completed products.	