

Aims

Develop creative, technical and practical expertise to problem solve.
Design and make high quality prototypes and products for a range of users.
Critique, evaluate and test ideas and products.

Design and Technology Curriculum Overview 2025-2027

	Reception Spring 2026	Year 1/2 Spring 2027	Year 1/2 Spring 2026	Year 3/4 Spring 2027	Year 3/4 Spring 2026	Year 5/6 Spring 2026	Year 5/6 Spring 2027
Core Value Focus: In our design and production, we are <u>RESILIENT</u>	The Challenge: To create sustainable products from recyclable or lifelong materials. To share our products with our local community. What is causing an impact on my immediate community? What is causing concern to my global community? How can I live more sustainably? How can I reduce my carbon footprint? Is it right to make people live more sustainably? Who does the planet belong to? What is climate change? Who contributes to the greenhouse effect? Is climate change is a myth? What's the evidence? What is happening to our oceans? Who's responsibility is it and why? 'The greatest challenge our world faces is environmental change' Sustainable development: Environment change Education for all						
Project	Junk box models	Card with levers	T-shirts	Frames	Plastic lights	Bags for life	Mechanics/ Vehicles
Design	create a design of a product for themselves and others to use (through drawing or arranging physical materials) communicate their ideas through hand	create a drawn design of a purposeful, functional, card that themselves or others could use use pictures and words to convey what they want to	design a purposeful, functional and appealing t-shirt that can be worn by themselves and their target audience generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information	use research to develop a design functional and appealing photo frame that is made from recyclable materials display their ideas through discussion, annotated	use research to develop and develop design criteria to inform the design of a functional and appealing underwater, plastic themed night light for the target market	use research and develop a design criteria to inform the design of innovative, multiple innovative, appealing bags for life with a clear functional purpose use their success criteria to select the	Use research and exploration to identify and understand users' needs when designing moving vehicles use their success criteria to select the most appropriate design based upon user's needs

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	gestures, speaking and listening	design and make.		sketches and pattern pieces	consider different ways in which they can creatively record their planning to engage an audience	most appropriate design generate, develop, model and communicate their ideas through discussion, annotated sketches and physical mood boards	generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional prototypes pattern pieces and computer-aided design
Make	learn to construct with a purpose in mind using a range of equipment (e.g. scissors, glue, string, hole punch) select from and use a wide range of materials and components, including construction and textiles for a clear purpose	Name the tools you are using. Use given tools for a variety of tasks Join appropriately for different materials and situations Explore ideas by rearranging materials e.g. paper, card, sequins, buttons, fabric	select, explore and use a wide range of materials and components, including materials and textiles use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, and finishing] and select them for a fitting purpose	Select from a range of tools and equipment to perform practical tasks (e.g., cutting, joining, gluing and finishing) select from a range of materials and components, Join and combine a range of materials with temporary/fixed moving joints	select from and use a wider range of tools and equipment to perform practical tasks considering design criteria select from and use a wider range of materials and components, including construction materials, textiles begin to select these according to their functional properties and aesthetic qualities	select from and use a wider range of tools and equipment to perform practical tasks (e.g., sewing, stitching, batiking, joining, gluing and finishing) select from and use a wider range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities	select from and use a wider range of tools and equipment to perform practical tasks (e.g., cutting, joining, gluing, shaping and finishing) -select from and use a wider range of materials and components, including construction materials, textiles according to their functional properties and aesthetic qualities

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Evaluate	Say what they like and dislike about products that are already know Begin to say how they could improve a product offering own ideas	Explore existing products. Say what they like and do not like about products they have made. Consider and explain how the finished product could be improved.	Explore and evaluate existing products. Talk about their developing designs and identify good points and areas to improve throughout the design process. Evaluate their product and its appearance against a design criteria.	Investigate and analyse a range of existing products. Identify strengths and areas to improve in their own design. Identify what does and does not work in the product.	Use investigations of existing products to inform planning of their own product. Check their work as it develops and modify approach in light of progress. Discuss how well their product meets the design criteria and the needs of the user.	Show a clear understanding of the specification and use this to inform decisions. Justify decisions about materials and methods of construction. Evaluate products and use of information sources.	Test, evaluate and refine ideas and products against a specification. Justify decisions made during the design process. Evaluate products and use of information sources throughout the process and use this to inform planning.
Technical knowledge	explore the use of everyday objects and how they work build structures from recyclable materials and explore how this can be beneficial through discussion	explore and use mechanisms (eg. Pulleys and levers) insert paper fasteners for card linkages	explore and use the key tools and techniques in textiles to create a t-shirt explore a range of techniques such as: fringing, tie-dye, dip-dye and stenciling	apply their understanding of how to strengthen, stiffen and reinforce more complex structures explore and use woodwork tools (hacksaw, clamp) Investigate temporary, fixed and moving joining's.	understand and use electrical systems in their products for example, series circuits incorporating switches, bulbs, buzzers and motors	apply their understanding textiles to strength, stiffen and reinforce more complex structures	understand and use mechanical systems in their products [for example, gears, pulleys, wheels, Cams and linkages] apply their understanding of computing to program, monitor and control their products. Model using computer aided design

Food Technology Projects run alongside Spring Term projects as part of our Outdoor Learning Curriculum. See our **Outdoor Learning Journeys** for more detail.