

Slater Primary Design Technology long-term plan 2024-2025



NC links KS1	NC links KS2
<p>Pupils should be taught to:</p> <p>1.Design: Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>2.Make: Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>3.Evaluate: Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria</p> <p>4.Technical knowledge: Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</p>	<p>Pupils should be taught to:</p> <p>1.Design: Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>2.Make: Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>3.Evaluate: Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world</p> <p>4.Technical knowledge: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.</p>

EYFS	Provide children with a range of materials for children to construct with. Encourage them to think about and discuss what they want to make. Discuss problems and how they might be solved as they arise. Reflect with children on how they have achieved their aims. Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue. Provide a range of materials and tools and teach children to use them with care and precision. Promote independence, taking care not to introduce too many new things at once.					
KS1						
Term	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Theme		Shade and Shelter		Taxi!		Chop, Slice and Mash
Y1		Children are taught about the purpose of shelters and their materials. They name and describe shelters and design and make shelter prototypes. Children then design and build a play den as a group and evaluate their completed product.		Children are taught about wheels, axles and chassis and how they work together to make a vehicle move. Linked to Bright Lights, Big City		Food Technology Children are taught about sources of food and the preparatory skills of peeling, tearing, slicing, chopping, mashing and grating. They use this knowledge and techniques to design and make a supermarket sandwich according to specific design criteria.
Theme		Remarkable Recipes		Beach Hut		Push and Pull
Y2		Food Technology Children are taught about sources of food and tools used for food preparation. They also discover why some foods are cooked and learn to read a simple recipe. The children choose and make a new school meal that fulfils specific design criteria.		This project is linked to Coastline. Children are taught about making and strengthening structures, including different ways of joining materials		Children are taught about three types of mechanism: sliders, levers and linkages. They make models of each mechanism before designing and making a greetings card with a moving part.
KS2						
Term	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Theme		Cook Well, Eatwell		Making It Move		Greenhouse

Y3		<p>Food Technology</p> <p>Children are taught about food groups and the Eatwell guide. They learn about methods of cooking and explore these by cooking potatoes and ratatouille. The children choose and make a taco filling according to specific design criteria.</p>		<p>Children are taught about cam mechanisms. They experiment with different shaped cams before designing, making and evaluating a child's automaton toy</p>		<p>Children are taught about the purpose, structure and design features of greenhouses, and compares the work of two significant greenhouse designers. They learn techniques to strengthen structures and use tools safely. They use their learning to design and construct a mini greenhouse.</p>
Theme		Fresh Food, Good Food		Functional and Fancy Fabrics		Tomb Builders
Y4		<p>Food Technology</p> <p>Children are taught about food decay and preservation. They discover key inventions in food preservation and packaging, then make examples. The children prepare, package and evaluate a healthy snack.</p>		<p>Children are taught about home furnishings and the significant designer William Morris. They learn techniques for decorating fabric, including block printing, hemming and embroidery and use them to design and make a fabric sample.</p>		<p>Children are taught about simple machines, including wheels, axles, inclined planes, pulleys and levers, exploring how they helped ancient builders to lift and move heavy loads.</p>
Theme		Moving Mechanisms		Eat the Seasons		Architecture
Y5		<p>This project teaches children about pneumatic systems. They experiment with pneumatics before designing, making and evaluating a pneumatic machine that performs a useful function.</p>		<p>Food Technology</p> <p>This project is linked to Sow, Grow and Farm. It teaches children about the meaning and benefits of seasonal eating, including food preparation and cooking techniques.</p>		<p>This project is linked to Groundbreaking Greeks. It teaches children about how architectural style and technology has developed over time and then use this knowledge to design a</p>

						building with specific features.
Theme		Food for Life		Engineer		Make Do and Mend
Y6		<p>Food Technology</p> <p>Children are taught about 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.</p>		<p>Children are taught about remarkable engineers and significant bridges, learning to identify features, such as beams, arches and trusses. They complete a bridge-building engineering challenge to create a bridge prototype.</p>		<p>This project is linked to A Child's War. Children are taught a range of simple sewing stitches, including ways of recycling and repurposing old clothes and materials.</p>