

Design Technology Curriculum

Intent

Our Design Technology curriculum has been created to ensure there is a systematic approach to the development of skills in designing, making and evaluating. Children work with a range of materials, use a selection of specialist equipment and create a range of products. The children explore a range of designers and artists whilst developing a rich and technical vocabulary. We aim to inspire the children, spark their creativity and challenge them to design products with a real-life purpose. Throughout the process children will be encouraged to reflect, develop and critique both their own and others work. Children will be safely exposed to risk, enterprise and evaluation: they will develop skills that they can then perform every day and successfully beyond the school environment.

Implementation

We are using the Cornerstones curriculum as a basis for our study of Design and Technology. This is a well-developed curriculum with progression of skills built into it across the key stages it includes all compulsory elements of the National Curriculum. We use a broad range of practical experiences to create innovative designs which solve real and relevant problems within a variety of different contexts.

	EYFS (see EYFS Curriculum)	Y1 & Y2	Y3 & Y4	Y5 & Y6
Year A	<p>Expressive Arts and Design (Exploring and Using Media and Materials) Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>SHADE AND SHELTER: This project teaches children 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.</p>	<p>COOK WELL, EAT WELL: This project teaches children 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</p>	<p>MOVING MECHANISMS: 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>Expressive Arts and Design (Being Imaginative)</p> <p>Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories</p> <p>Physical Development (Moving and Handling)</p> <p>Children handle equipment and tools effectively, including pencils for writing.</p> <p>Where possible through projects linked to KS1 projects.</p>	<p>TAXI: This project teaches children about wheels, axles and chassis and how they work together to make a vehicle move</p> <p>CHOP, SLICE AND MASH; This project teaches children a range of simple sewing stitches, including ways of recycling and repurposing old clothes and materials.</p>	<p>according to specific design criteria.</p> <p>MAKING IT MOVE: This project teaches children about cam mechanisms. They experiment with different shaped cams before designing, making and evaluating a child's automaton toy.</p> <p>GREENHOUSE: This project teaches children 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>	<p>EAT THE SEASONS: This project teaches children about the meaning and benefits of seasonal eating, including food preparation and cooking techniques.</p> <p>ARCHITECTURE: This project teaches children about how architectural style and technology has developed over time and then use this knowledge to design a building with specific features.</p>
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Year B	As above	<p>REMARKABLE RECIPES; This project teaches children 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.</p> <p>BEACH HUT; This project teaches children about making and strengthening structures, including different ways of joining materials.</p> <p>CUT, STITCH AND JOIN: This project teaches children about fabric home products and the significant British brand Cath Kidston. They learn about sewing patterns and using a running stitch and</p>	<p>FRESH FOOD,GOOD FOOD: This project teaches children 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>FUNCTIONAL AND FANCY FABRICS: This project teaches children 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>TOMB BUILDERS: This project teaches children about simple machines, including wheels, axles, inclined planes, pulleys and</p>	<p>FOOD FOR LIFE This project teaches children 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>ENGINEER: This project teaches children 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>MAKE DO AND MEND: This project teaches children a range of simple sewing stitches,</p>
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		<p>embellishments before making a sewn bag tag.</p> <p>PUSH AND PULL; This project teaches children 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.</p>	<p>levers, exploring how they helped ancient builders to lift and move heavy loads.</p>	<p>including ways of recycling and repurposing old clothes and materials.</p>
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Impact

At the start of each unit children will share what they already know and discuss what they want to find out. At the end of the unit, children will revisit their initial discussion and add their new knowledge. Knowledge organisers are used to support key vocabulary teaching and core knowledge these should be familiar to all children at the end of their learning journey and will be quizzed and discussed to assess understanding.

Children will complete a 'final piece' to conclude their block of learning and teachers will collate evidence throughout the children's learning journey. This collection of photos and other evidence can be shared with parents and visitors to celebrate progress made.