

Design & Technology - Curriculum Overview

Year A 2023 - 2024

Class	Autumn	Spring	Summer
Chestnut	<p>Food and Nutrition <i>Why are vegetables the best?</i></p> <p>Prepare and sample a wide variety of vegetables.</p> <p>Learn about the health benefits of eating vegetables daily.</p> <p>Develop knife skills and basic culinary techniques.</p>	<p>Textiles <i>How can two squares of fabric keep you warm?</i></p> <p>Learn how to sew pieces of fabric together to form a pouch.</p> <p>Name the parts of a needle and thread it.</p> <p>The Bayeux Tapestry</p>	<p>Understanding Materials <i>Can you build with bread?</i></p> <p>Identify a range of construction materials.</p> <p>Investigate how materials can be changed by adding heat or water.</p> <p>Use a combination of materials to build a small model house.</p> <p>Architect and designer - Frank Lloyd Wright</p>
Beech	<p>Textiles <i>How can you make a box out of cloth?</i></p> <p>Explore ways to stiffen fabric.</p> <p>Look at images of fabric structures by Gisela Stromeyer</p>	<p>Electrical Systems <i>How useful are switches?</i></p> <p>Learn how different types of switches work within electrical circuits and how these can be used to perform a function in a product.</p> <p>Samuel Bagno - inventor of the motion sensor.</p>	<p>Food and Nutrition <i>What do we mean by a balanced diet?</i></p> <p>Consider what a balanced diet is and make some commonly bought foods from fresh.</p>
Oak	<p>Mechanisms <i>How do pulleys and gears let you see the world?</i></p> <p>Pupils will investigate how pulleys and gears work and design and</p>	<p>Food and Nutrition <i>Does food affect the way you feel?</i></p> <p>Pupils will learn how to cook foods that are often pre-made and processed. They will learn and apply</p>	<p>Textiles <i>How can we reduce, recycle and repurpose?</i></p> <p>Pupils learn how they can reduce waste by recycling and repurposing snack</p>

	make their own gears product.	techniques to make dishes designed to help improve energy levels, mood and future health.	packets and plastic bags into useful items. Learn about Isatou Ceesay who initiated a recycling movement in Gambia called One Plastic Bag.
Year B 2024 - 2025			
Class	Autumn	Spring	Summer
Chestnut	<p>Mechanisms <i>Are bigger wheels always better?</i></p> <p>Learn how wheels and axles work together.</p> <p>Build simple wheel mechanisms.</p> <p>Explore how the size of a wheel and position of the axles affects the movement of simple vehicles.</p> <p>Inventor of the automobile - Karl Friedrich Benz</p>	<p>Structures <i>How strong is a piece of paper?</i></p> <p>Discover how the strength of paper can be increased by folding.</p> <p>Test and record paper structures.</p> <p>Design a paper tower that is at least 50cm tall and can bear a 1kg weight.</p> <p>Architecture and Architects: The Riverside Museum, Glasgow. Dame Zaha Mohammad Hadid.</p>	<p>Food and Nutrition <i>How healthy is your food?</i></p> <p>Learn how foods that are pre-made and processed can often be unhealthy.</p> <p>Practise skills and help make food that will improve energy, mood and future health.</p>
Beech	<p>Mechanisms <i>How many ways are there to open a door?</i></p> <p>Investigate how hinges work and use a variety of materials and tools to make a hinged product.</p>	<p>Structures <i>What makes a bridge strong?</i></p> <p>Identify types of bridges and investigate how the shape and features affect how strong it is.</p> <p>Engineers and Designers: Sir John Wolfe Barry and Sir Horace Jones</p>	<p>Food and Nutrition <i>What's really in your food?</i></p> <p>Explore the difference between freshly made and mass produced food, focusing on common foods often bought pre-made.</p>

<p>Oak</p>	<p>Systems <i>How can we keep ourselves safe on the road?</i></p> <p>Design and make a road safety belt. Write a simple program for a micro: bit and evaluate their outcome against the design brief.</p> <p>Emily Brooke - Inventor of the Laserlight bike light projector.</p>	<p>Structures <i>How strong is a piece of spaghetti?</i></p> <p>Test the strength of spaghetti and then apply what they have learned to construct a tower that is at least one metre tall.</p> <p>Architects James Maxwell (1838 – 93) and William Charles Tuke (1843 – 93) designers of Blackpool Tower.</p>	<p>Food and Nutrition <i>Why are our diets so different?</i></p> <p>Consider what we can learn from the diets of different cultures such as Middle Eastern and Danish foods. Learn how to make flatbreads and use a range of techniques to make delicious, appetising food.</p>
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