

Whole School Design and Technology Plan

Yr	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<p>Me and My World</p> <p>Structures/Food <i>Which fruits have delicious skin?</i></p> <p>Children introduced to school routines: Snack time, learning how to share and peel fruit. Construction: exploring joining different types of building equipment. Link to Maths Numbers and measures</p>	<p>Me and My World</p> <p>Textiles <i>How do we join fabric?</i></p> <p>Making gingerbread people hand puppets for storytelling. Over stitching and joining puppet shapes.</p> <p>Link to Physical-</p>	<p>Vroom Vroom</p> <p>Food <i>What happens when we mix wet and dry ingredients?</i></p> <p>Making pancakes; spooning, stirring and measuring ingredients.</p> <p>Link to Understanding the World- The World, Physical</p>	<p>Vroom Vroom</p> <p>Mechanisms <i>How do wheels turn?</i></p> <p>Exploring wheels and axles. Designing and making vehicles.</p> <p>Link to Physical- Fine Motor/ Mathematics- Measures</p>	<p>Down on the Farm</p> <p>Food <i>Who will help me make the bread?</i></p> <p>Grinding wheat to make flour for the Little Red Hen. Making bread for the Little Red Hen. Learning to mix/ stir and knead ingredients. Link to Understanding the World- The World</p>	<p>Down on the Farm</p> <p>Food <i>Where does milk come from?</i></p> <p>Visit to Farm. Finding out where food comes from.</p> <p>Link to Understanding the World- The World</p>
	<p>EYFS Key Vocab</p> <p>Fruit and Vegetable names. Peel, skin, pips, seeds.</p>	<p>Stitching, thread, fabric, needle</p>	<p>Mix, stir, measure, ingredients</p>	<p>Wheels, axles, design vehicle</p>	<p>Mix, stir and knead, wheat, flour, types of bread.</p>	<p>Farm animal names and their products</p>
1	<p>Out and About with the Jolly Postman</p> <p>Structures <i>Is the brick house always the strongest?</i></p> <p>Building a stable structure for the 3 Little Pigs.</p> <p>Link to Science Materials</p>	<p>Out and About with the Jolly Postman</p> <p>Mechanisms <i>How can we make pictures move?</i></p> <p>Exploring levers in products. Designing and making a picture with moving parts.</p>	<p>To Infinity and Beyond</p> <p>Food <i>How do astronauts stay healthy?</i></p> <p>Astronaut training week sorting and finding out about which foods we need to keep us healthy.</p> <p>Link to Science and PSHE</p>	<p>To Infinity and Beyond</p> <p>Food <i>Can we make a healthy snack by slicing?</i></p> <p>Learning Bridge Hold, Fork Secure and Claw cutting methods to slice and fruits and create a fruit salad.</p>	<p>Woodland Wonders</p> <p>Design <i>What does a bird need to eat?</i></p> <p>Evaluating existing bird feeders, finding out about Green and Blue Design Company. Designing and making bird feeders.</p> <p>Link to Science Materials</p>	<p>Woodland Wonders</p> <p>Food <i>Where does it grow?</i></p> <p>Finding out which foods grow in Peter's Rabbits Garden and understanding that fruits and vegetables grow on different types of plants</p> <p>Link to Science Growing</p>
	<p>1 Key Vocab</p> <p>Sturdy, strong, rigid, stable.</p>	<p>pivot, lever</p>	<p>balanced diet, energy, fruits and vegetables, carbohydrates, fats and sugars, protein, dairy</p>	<p>Cut, slice, bridge hold, fork secure and claw cutting methods.</p>	<p>Design, waterproof and waterproof materials.</p>	<p>Plant, root vegetable, seeds, ploughed, soil, harvest</p>

2	<p style="text-align: center;">Fire and Ice</p> <p style="text-align: center;">Textiles <i>Can fabric be 3D?</i></p> <p>Designing and Making Christmas decorations by using stitching to join felt and decorate felt shapes.</p>	<p style="text-align: center;">Scales and Tales</p> <p style="text-align: center;">Food <i>Does all fruit grow on trees?</i></p> <p>Finding out how fruits and vegetables are farmed. Designing and Making Smoothies. Reinforce cutting skills and learning to grate and peel softer foods. Finding out about Gravy the graphic designer and designing a logo for their own smoothies.</p> <p><i>Links to Geography, Science and Maths Measures</i></p>	<p style="text-align: center;">Splish, Splash, Splosh</p> <p style="text-align: center;">Mechanisms <i>Is a pulley useful?</i></p> <p>Exploring pulleys. Designing and making a pulley system to help the Lighthouse Keeper lower his lunch basket to the ground.</p>
2 Key Vocab	<p style="text-align: center;">Stitching, thread, fabric, needle eye, over-stitch, starting and finishing off.</p>	<p style="text-align: center;">Farming, plantation, orchard, cut, slice, bridge hold, fork secure and claw cutting methods, grater, peeler, logo.</p>	<p style="text-align: center;">Pulley, axle, load</p>
3	<p style="text-align: center;">Skulls and Crossbones</p> <p style="text-align: center;">Textiles <i>Where should the pirates keep their gold?</i></p> <p>Designing and Making pirate money bags. Learning to use running stitch to join fabric and to attach fastenings.</p>	<p style="text-align: center;">Footprints in the Past</p> <p style="text-align: center;">Structures <i>Why are the pyramids so sturdy?</i></p> <p>Investigating pyramids and other structures. Learning to add diagonal struts to make structures stronger and sturdier. Construction challenges creating sturdy structures.</p> <p><i>Link to Maths Shapes</i></p>	<p style="text-align: center;">An African Adventure</p> <p style="text-align: center;">Food <i>What are food miles?</i></p> <p>Finding out how far our food has travelled and how some foods need a specific climate to grow. Children will make their own healthier lemonade, learning how to use a simple manual juicer.</p> <p><i>Links to Maths Measures, Science and Geography</i></p>
3 Key Voca	<p style="text-align: center;">Design Brief, Stitching, thread, fabric, running-stitch, starting and finishing off, fastenings, appliqué and seam.</p>	<p style="text-align: center;">Structure, building, stable, sturdy, support, strengthen, stabilise, triangle, tetrahedron, wider base.</p>	<p style="text-align: center;">Food miles, juicer, bridge hold, sieve, whisk, citrus fruits, sweet, sour, vitamin C</p>
4	<p style="text-align: center;">Journey into the Unknown</p> <p style="text-align: center;">Design <i>Do exploded diagrams explode?</i></p> <p>Using switches and electrical systems to create a collaborative light up castle inspired by The Journey by Aaron Becker.</p> <p><i>Link to Science Electricity</i></p>	<p style="text-align: center;">Stones 'n' Bones</p> <p style="text-align: center;">Structures <i>Which type of bridge is the strongest?</i></p> <p>Children will solve the problem of Ug from 'Boy Genius of the Stone age' by Raymond Briggs retrieving a rock from the river. Children will build sturdy bridges using diagonal struts and truss structures.</p>	<p style="text-align: center;">Amazon Adventures</p> <p style="text-align: center;">Food <i>Are strawberries just for the summer?</i></p> <p>Designing and making Fair trade cookies. Learning about seasonality, Fairtrade ingredients and how to research and evaluate products. Children will design, measure ingredients, then follow a simple recipe to make cookies.</p> <p><i>Link to Maths Measures, Data Handling and Geography</i></p>
4 Key Vocab	<p style="text-align: center;">Exploded Diagram, Toggle Switch, Slide Switch, and Push Switch. Flange, tab, Rotary Cutter, Cutting Mat, Safety Ruler.</p>	<p style="text-align: center;">Bridges: Beam, Truss, Arch and Suspension. Design Brief, Viaduct, Truss, Diagonal Struts,</p>	<p style="text-align: center;">Seasonality, fair-trade, product research, design brief, consumer, combine, knead</p>

5	<p style="text-align: center;">Aiming High</p> <p style="text-align: center;">Food</p> <p style="text-align: center;"><i>How many ways can you cook an apple?</i></p> <p>To help Snow White's stepmother rethink her poison apple, the children will learn about a range of cooking techniques, considering which one is the healthiest way to cook. They will recap the Eatwell Plate and discuss which techniques use fats and oils.</p> <p style="text-align: center;"><i>Link to Science</i></p>	<p style="text-align: center;">Groovy Greeks</p> <p style="text-align: center;">Mechanisms</p> <p style="text-align: center;"><i>Can you win a chariot race with air?</i></p> <p>Children will find out about the chariot racing in ancient Greece and will build, test and evaluate their own balloon powered chariot.</p> <p style="text-align: center;"><i>Link to Science</i></p>	<p style="text-align: center;">Twisted Tales</p> <p style="text-align: center;">Structures</p> <p style="text-align: center;"><i>What is a net?</i></p> <p>Children will be learning about shell structures and how to create 3D shapes from nets. They will use computers to explore 3D modelling and design a house.</p> <p style="text-align: center;"><i>Link to Computing and Maths Shape.</i></p>
5 Key Vocab	<p>Boiling, grilling, steaming, baking, frying, poaching, carbohydrates, protein, dairy, balanced diet.</p>	<p>Wheels, axles, bearings, gears, pulleys, levers</p>	<p>Shell structures, Nets, tabs, 2D to 3D</p>
6	<p style="text-align: center;">The Battle of Britain</p> <p style="text-align: center;">Structures</p> <p style="text-align: center;"><i>Should we have called them Paterson shelters?</i></p> <p>Investigating structures and finding out how to make structures more stable. Visiting and learning about the WWII Anderson Shelters. Designing and making individual prototypes and collaborative shelters outside.</p> <p style="text-align: center;"><i>Link to History</i></p>	<p style="text-align: center;">Magical Mysteries</p> <p style="text-align: center;">Food</p> <p style="text-align: center;"><i>Could you eat well during the blitz?</i></p> <p>Planning a healthy meals using only WWII rations and foods grown as part of the Dig for Victory campaign. Learning to use information on food labels to make healthy choices.</p> <p style="text-align: center;"><i>Link to History and Science</i></p>	<p style="text-align: center;">Legacy</p> <p style="text-align: center;">Design</p> <p style="text-align: center;"><i>Is a butter stick a useful product?</i></p> <p>Exploring Chindogu; Japanese inventions for everyday use. Learning about the designers that have designed and created many everyday products. Designing their own product solving common everyday problems.</p>
6 Key Vocab	<p>Frame structures, rigid, sturdy, bracing, triangulation, skeleton structure, prototype</p>	<p>balanced diet, energy, fruits and vegetables, carbohydrates, fats and sugars, protein, dairy, calories, saturated fat, seasonality, seasonal produce, portions, food plan</p>	<p>Design brief, product, consumer, costings</p>