

Design and Technology Overview – Composite Knowledge



EYFS

- Can we explore and use a range of materials, tools (including scissors, hammer and saws) and techniques safely?
- Can we experiment with colour, design, texture, form and function?
- Why is it important to make healthy food choices? Where do vegetables come from?

Key Stage 1

	Autumn 2	Spring 2	Summer 2
Y1	<p>Mechanisms Sliders and levers</p> <ul style="list-style-type: none"> • What is a slider? • What is a lever? • Which part of the mechanism is a pivot? <p>Toys</p>	<p>Structures Freestanding structures</p> <ul style="list-style-type: none"> • What is a freestanding structure? • How can we stop a freestanding structure from falling over? • How can we make a structure stronger, stiffer and more stable? <p>Whose home?</p>	<p>Food Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)</p> <ul style="list-style-type: none"> • How many different types of fruit are available? • What vocab can you use to describe the smell, taste and texture of different fruit? • Why do we need fruit and veg to have a balanced diet? • How do we prepare food in a safe way? <p>Fantastic Fruit</p>
Y2	<p>Mechanisms Wheels and axles</p> <ul style="list-style-type: none"> • What is an axle? • What is a chassis? • How do wheels and axles work together to help things move? <p>Let's look at vehicles Wheels</p>	<p>Food Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)</p> <ul style="list-style-type: none"> • What is a balanced diet? • Why is it good to eat a balanced diet? • What do we need to do before we can eat fruit and veg? <p>Perfect Pizza!</p>	<p>Textiles Templates and joining techniques</p> <ul style="list-style-type: none"> • What is a template? • What is a joining technique? <p>Puppets Fancy a bag</p>

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Lower Key Stage 2

	Autumn 2	Spring 2	Summer 2
Y3	<p>Food</p> <p>Healthy and varied diet (including cooking and nutrition requirements for KS2)</p> <ul style="list-style-type: none"> • What equipment and resources do we need to use to combine and prepare food? • How can we prepare food hygienically? • Why do we follow instructions when cooking? • How can we prepare food safely? <p>Sandwich Snacks</p>	<p>Structures</p> <p>Shell structures (including computer-aided design)</p> <ul style="list-style-type: none"> • How can we construct strong, stiff shell structures? • How can we use a net to effectively make a 3D shape? <p>Photo frames Making mini green houses</p>	<p>Textiles</p> <ul style="list-style-type: none"> • How can we securely join two pieces of fabric together? • How can we strengthen, stiffen and reinforce existing fabrics? <p>Aprons</p>
Y4	<p>Food</p> <p>Healthy and varied diet (including cooking and nutrition requirements for KS2)</p> <ul style="list-style-type: none"> • What are culture and seasonality? • What different techniques can we use? • How can we understand the nutritional value of a product? • What functions do different utensils have? • <p>Super Salads</p>	<p>Mechanical Systems</p> <p>Levers and linkages</p> <ul style="list-style-type: none"> • What is a shell structure? • How can we join our shell structure? • What is triangulation and how does it help? <p>Pop-up story book</p>	<p>Electrical Systems</p> <p>Simple circuits and switches (including programming and control)</p> <ul style="list-style-type: none"> • What is a program? • How can we create a simple program? • How can we create a program with a control aspect? <p>Developing handmade switches</p>

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Upper Key Stage 2

	Autumn 2	Spring 2	Summer 2
Y5	<p>Food</p> <p>Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)</p> <ul style="list-style-type: none"> • What are culture and seasonality? • What different techniques can we use? • How can we understand the nutritional value of a product? • What functions do different utensils have? <p>Making Bread</p>	<p>Structures</p> <p>Frame structures</p> <ul style="list-style-type: none"> • What is a frame structure? • How can we join our frame structure? • What is triangulation and how does it help? <p>Bridges Skyscrapers</p>	<p>Mechanical Systems</p> <p>Pulleys or gears</p> <ul style="list-style-type: none"> • How do gears help to change the speed or direction of movement of an object? • What are the inputs, processes and outputs for a particular object? <p>Gears & Pulleys</p>
Y6	<p>Textiles</p> <p>Combining different fabric shapes (including computer-aided design)</p> <ul style="list-style-type: none"> • How can we combine different fabric shapes? • What impact have different designers had on fabrics and products? • How can we strengthen/stiffen a product? <p>Designer bags "Make do and mend!"</p>	<p>Electrical Systems</p> <p>Monitoring and control</p> <ul style="list-style-type: none"> • Why do we use computer control programs to operate products? • What are the advantages of using computer control? <p>Crumble (computing link)</p>	<p>Food</p> <p>Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)</p> <ul style="list-style-type: none"> • What variety of fruits do we have and where do they come from? How do they influence food and drink from that country? • Why do we need a healthy diet and how does fruit contribute to this? • What combinations of fruit make a drink with pleasing results? • Which safety and hygiene rules must be followed when carrying out practical tasks in food technology? <p>Caribbean Fruit Cocktails</p>