

Design and Technology Year Group Curriculum Overview

	Autumn 2	Spring 2	Summer 2																																																																					
	Design	Make	Evaluate	Technical	Additional																																																																			
	Skills			Knowledge																																																																				
EYFS	<p>Junk Modelling</p> <p>Pupils explore and learn about various types of permanent and temporary join. They are encouraged to tinker using a combination of materials and joining techniques in the junk modelling area.</p> <p><u>Workshop: Junk Modelling</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Join</td> <td style="padding: 2px;">Blade</td> <td style="padding: 2px;">Fix</td> </tr> <tr> <td style="padding: 2px;">Stick</td> <td style="padding: 2px;">Handle</td> <td></td> </tr> <tr> <td style="padding: 2px;">Cut</td> <td style="padding: 2px;">Snip</td> <td></td> </tr> <tr> <td style="padding: 2px;">Bend</td> <td style="padding: 2px;">Cut</td> <td></td> </tr> <tr> <td style="padding: 2px;">Join</td> <td style="padding: 2px;">Measure</td> <td></td> </tr> <tr> <td style="padding: 2px;">Slot</td> <td style="padding: 2px;">Separate</td> <td></td> </tr> </table>		Join	Blade	Fix	Stick	Handle		Cut	Snip		Bend	Cut		Join	Measure		Slot	Separate		<p>Food: Soup</p> <p>Children explore the differences between fruits and vegetables using their senses (taste, texture, smell etc.). They listen to the story 'The best pumpkin soup' and discuss the key ingredients the characters used before developing a class-based vegetable soup recipe</p> <p><u>Food: Soup</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="4" style="padding: 2px;">Names of fruit and vegetables</td> </tr> <tr> <td style="padding: 2px;">Seeds</td> <td style="padding: 2px;">Juicy</td> <td style="padding: 2px;">Flesh</td> <td style="padding: 2px;">Boil</td> </tr> <tr> <td style="padding: 2px;">Root</td> <td style="padding: 2px;">Sweet</td> <td style="padding: 2px;">Skin</td> <td style="padding: 2px;">Blend</td> </tr> <tr> <td style="padding: 2px;">Leaves</td> <td style="padding: 2px;">Sour</td> <td style="padding: 2px;">Core</td> <td style="padding: 2px;">Mix</td> </tr> <tr> <td style="padding: 2px;">Stem</td> <td style="padding: 2px;">Bitter</td> <td style="padding: 2px;">Chop</td> <td style="padding: 2px;">Ingredients</td> </tr> <tr> <td style="padding: 2px;">Plant</td> <td style="padding: 2px;">Chewy</td> <td style="padding: 2px;">Slice</td> <td style="padding: 2px;">Packaging</td> </tr> <tr> <td style="padding: 2px;">Flower</td> <td style="padding: 2px;">Watery</td> <td style="padding: 2px;">Cut</td> <td></td> </tr> </table>		Names of fruit and vegetables				Seeds	Juicy	Flesh	Boil	Root	Sweet	Skin	Blend	Leaves	Sour	Core	Mix	Stem	Bitter	Chop	Ingredients	Plant	Chewy	Slice	Packaging	Flower	Watery	Cut		<p>Textiles: Bookmarks</p> <p>Pupils develop and practise threading and weaving techniques using various materials and objects. They look at the history of the bookmark from Victorian times versus modern-day styles. The pupils apply their knowledge and skills to design and sew their own bookmarks.</p> <p><u>Textiles: Bookmarks</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Thread</td> <td style="padding: 2px;">Over</td> <td style="padding: 2px;">Design</td> </tr> <tr> <td style="padding: 2px;">Weave</td> <td style="padding: 2px;">Up</td> <td style="padding: 2px;">Reflect</td> </tr> <tr> <td style="padding: 2px;">Pinch</td> <td style="padding: 2px;">Down</td> <td style="padding: 2px;">Evaluate</td> </tr> <tr> <td style="padding: 2px;">Push</td> <td style="padding: 2px;">Pattern</td> <td></td> </tr> <tr> <td style="padding: 2px;">Pull</td> <td style="padding: 2px;">Sew</td> <td></td> </tr> <tr> <td style="padding: 2px;">Through</td> <td style="padding: 2px;">Needle</td> <td></td> </tr> <tr> <td style="padding: 2px;">Under</td> <td style="padding: 2px;">Embroider</td> <td></td> </tr> </table>	Thread	Over	Design	Weave	Up	Reflect	Pinch	Down	Evaluate	Push	Pattern		Pull	Sew		Through	Needle		Under	Embroider	
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<p>Year 1</p>	<p>2D Structure and Mechanism: Windmills</p> <p>Designing, decorating and building a windmill for their mouse client to live in, developing an understanding of different types of windmill, how they work and their key features.</p> <p style="text-align: center;"><u>2D Structure & Mechanism</u> <u>Windmills</u></p> <p>Client Design Evaluation Net Stable Strong Test Weak Windmill</p>	<p>Textiles: Puppets</p> <p>Exploring different ways of joining fabrics before creating their own hand puppets based upon characters from a well-known fairy tale. Children work to develop their technical skills of cutting, gluing, stapling and pinning.</p> <p><u>Textiles</u> <u>Puppets</u> Decorate Fabric Glue Model Hand puppet Safety pin Staple Stencil Template</p>	<p>Food technology: Fruit and Vegetables</p> <p>Handling and exploring fruits and vegetables and learning how to identify which category they fall into, before undertaking taste testing to establish their chosen ingredients for the smoothie they will make a design packaging for.</p> <p><u>Food Technology</u> <u>Fruit and Vegetables</u> Blender Carton Fruit Healthy Ingredients Peel Peeler Recipe Slice Vegetable</p>
<p>Year 2</p>	<p>Structures: Baby Bear’s Chair</p> <p>Using the tale of Goldilocks and the Three Bears as inspiration, children help Baby Bear by making him a brand-new chair. When designing the chair, they consider his needs and what he likes and explore ways of building it so that it is strong.</p>	<p>Mechanisms: Fairground wheel</p> <p>Designing and creating their own Ferris wheels, considering how the different components fit together so that the wheels rotate, and the structures stand freely. Pupils select appropriate materials and develop their cutting and joining skills</p>	<p>Mechanisms: Moving Monsters</p> <p>After learning the terms; pivot, lever and linkage, children design a monster which will move using a linkage mechanism. Children practise making linkages of different types and varying the materials they use to bring their monsters to life.</p> <p><u>Mechanisms</u></p>

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	<u>Structures</u> <u>Baby Bear's Chair</u> Function Man-made Mould Natural Stable Stiff Strong Structure Test Weak	<u>Mechanisms</u> <u>Fairground Wheel</u> Axle Decorate Evaluation Ferris wheel Mechanism Stable Strong Test Waterproof Weak	<u>Moving Monster</u> Evaluation Input Lever Linear motion Linkage Mechanical Mechanism Motion Oscillating motion Output Pivot Reciprocating motion Rotary motion Survey
Year 3	Design and make a toy car that moves using a balloon, sail or winding mechanism for reception class	Use cross stitch to create an Easter book mark a gift for somebody special	Cooking and Nutrition: Design and make a healthy dip
Year 4	Design and sew a Christmas decoration for the school Christmas tree	Create an electrical board game	Cooking and Nutrition: Make guacamole to serve with tortilla
Year 5	Structures: Pavilion Exploring pavilion structures, children learn about what they are used for and investigate how to create strong and stable structures before designing and creating their own pavilions, complete with cladding. <u>Structures</u>	Mechanisms Systems: Slingshot car Transforming lollipop sticks, wheels, dowels and straws into a moving car. Using a glue gun to, making a launch mechanism, designing and making the body of the vehicle using nets and assembling these to the chassis. <u>Mechanical Systems</u> <u>Slingshot car</u>	Electrical Mechanism: Torches Applying their scientific understanding of electrical circuits, children create a torch, designing and evaluating their product against set design criteria. <u>Electrical Mechanism</u> <u>Torches</u> Battery

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	<p><u>Pavilions</u> Aesthetic Cladding Design criteria Evaluation Frame structure Function Inspiration Pavilion Reinforce Stable Structure Target audience Target customer Texture Theme</p>	<p>Aesthetic Air resistance Chassis Design Design criteria Function Graphics Kinetic energy Mechanism Net Structure</p>	<p>Bulb Buzzer Cell Component Conductor Copper Design criteria Electrical item Electronic item Function Insulator Series circuit Switch Test Torch Wire</p>
Year 6	<p>Electrical Mechanism: Doodlers</p> <p>Explore series circuits further and introduce motors. Investigating an existing product, which uses a motor, to encourage pupils to problem-solve and work out how the product has been constructed, ready to develop their own.</p> <p><u>Electrical Mechanisms</u> <u>Doodlers</u> Circuit component Configuration Current</p>	<p>Mechanism: Pop up books</p> <p>Creating a four-page pop-up storybook design incorporating a range of mechanisms and decorative features, including: structures, levers, sliders, layers and spacers.</p> <p><u>Mechanisms</u> <u>Pop-up Books</u> Aesthetic Computer aided design (CAD) Caption Design Design brief Design criteria</p>	<p>Food technology: What could be healthier?</p> <p>Researching and modifying a traditional bolognese sauce recipe to make it healthier. Children cook their healthier versions, making appropriate packaging and learn about farming cattle.</p> <p><u>Food Technology</u> <u>What could be healthier?</u> Beef Cross-contamination Diet Ethical issue</p>

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	<p>Develop DIY Investigate Motor Motorised Problem solve Product analysis Series circuit Stable Target user</p>	<p>Exploded diagram Function Input Linkage Mechanism Motion Output Pivot Prototype Slider Structure Template</p>	<p>Farm Healthy Ingredients Method Nutrients Packaging Reared Recipe Research Substitute Supermarket Vegan Vegetarian Welfare</p>
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