

DT Curriculum 23-24 Overview

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Nursery	<p>D&T - Hibernation Box - Creating with materials to join different materials and textures together to create a hedgehog habitat.</p> <p><u>By the end of this unit</u>- Children will be able to manipulate and explore various materials, e.g., clay/card/fabric.</p> <p>Linked Text - It was a cold, dark night- Tim Hopgood.</p>		<p>DT - Create a Rainbow book Create a book by joining different materials together to create a textured effect.</p> <p><u>By the end of this unit</u> - children will explore using different joining techniques to create texture.</p>		<p>DT Unit Vehicle -Creating with materials. Children to make a simple model, joining different materials and textures to create an emergency service vehicle.</p> <p>Linked text: Amazing machines - Flashing fire engine</p> <p><u>By the end of this unit</u> - children will explore using different joining techniques to build and create a vehicle</p>	
Reception		<p><u>Textiles Unit</u> Design and create a stocking for Christmas to store things in.</p>	<p><u>Structures unit - Wooden Toys</u></p> <p>Link to History unit - past and present-day toys. Explore wooden toys from the past. Replicate a toy from the past.</p>	<p><u>Food unit</u></p> <p>Create healthy food products using fruit (fruit kebabs, smoothies).</p>		<p><u>Food unit</u></p> <p>Assemble food products from different cultures (Dips and Dippers).</p>
Year 1		<p><u>Textiles unit</u></p> <p><u>Problem:</u> How can we keep our hands warm in Winter?</p> <p><u>Design Brief:</u> Design & make a clothing item to keep your hands warm at playtimes.</p> <p><u>Skills</u></p> <p>Cut material, join the seam using Velcro.</p>	<p><u>Food unit</u></p> <p><u>Problem:</u> Can you make fruit look appealing and interesting to eat?</p> <p><u>Design Brief:</u> Design & make an appetising fruit salad.</p> <p><u>Skills</u></p> <p>Cut food safely, use simple hand tools safely.</p> <p><u>Community Link:</u> Greenacres</p>		<p><u>Structures & Mechanisms unit</u></p> <p><u>Problem:</u> Can you make an aeroplane that can be moved in a flight pattern?</p> <p><u>Design Brief:</u> Design and make an aeroplane that can be moved in all directions for Emma Jane (character) to help her fly over the places she visits.</p> <p><u>Skills</u></p> <p>Join materials using tape, glue and paper fasteners. Investigate making simple sliding & lever mechanisms.</p>	
Year 2	<p><u>Textiles unit</u></p> <p><u>Problem:</u> How can we help Paddington to get his sandwiches to London safely.</p> <p><u>Design Brief:</u> Design and make a bag for Paddington to take his marmalade sandwiches to London.</p> <p><u>Skills</u></p> <p>(running stitch / template making, cutting fabric)</p>		<p><u>Food unit</u></p> <p><u>Problem:</u> How can we make a snack fit for a king?</p> <p><u>Design Brief:</u> Design and make a cake for a banquet for King Charles II.</p> <p><u>Skills</u></p> <p>To weigh ingredients to use in a recipe.</p> <p>To describe the ingredients used when making a product.</p>			<p><u>Structures & Mechanisms unit</u></p> <p><u>Problem:</u> Can you make a toy that moves?</p> <p><u>Design Brief:</u> Design & make a moon buggy that can be pushed or pulled by a Reception child.</p> <p><u>Skills</u></p> <p>To join wood accurately. To use wheels and axels.</p>

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Year 3		<p><u>Textiles unit</u> <u>Problem:</u> How can an explorer carry their belongings safely? <u>Design Brief:</u> Design and make a drawstring bag to hold belongings for an explorer. <u>Skills</u> Use Tie Dye to camouflage. Create a hem (for drawstring using running stitch Join the seam using over stitch Use running stitch to add initials</p>			<p><u>Structure unit</u> <u>Problem:</u> How can you keep all your treasures safe together? <u>Design Brief:</u> Design and make a container for storing your own items of 'treasure'. <u>Skills</u> Know how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</p>	
Year 4	<p><u>Textiles unit</u> <u>Problem:</u> Can you make an eye-catching cushion for a display? <u>Design Brief:</u> Design and make a cushion to be displayed in a chocolate shop window to advertise a product to children. (seam - sewing machine & decorations using cross stitch or chain stitch.) <u>Skills</u> Create a seam, Use a sewing machine, Applique designs onto the cushion. Use decorative stitches, e.g. cross stitch / chain stitch.</p>		<p><u>Structures and Mechanisms Unit</u> <u>Problem:</u> Can you create light? <u>Design Brief:</u> Design and make a spotlight for a theatre company to use in a performance. <u>Skills</u> Make a simple circuit incorporating a battery, light bulb, switch and connecting wires. Investigate making switches that operate in different ways (press, turn, push) Select appropriate tools and techniques for making their product. Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. Join and combine materials and components accurately in temporary and permanent ways</p>		<p><u>Food unit</u> <u>Problem:</u> How can we use dough to make an appealing Italian based product? <u>Design Brief:</u> Design and make a dough-based product for an Italian feast. <u>Skills</u> Measure ingredients. Knead dough. Use tools safely to slice, chop and grate ingredients.</p>	

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Year 5		<p><u>Textiles unit</u> <u>Problem:</u> How can we help keep our heads warm in the cold weather? <u>Design Brief:</u> Design and make a hat to keep our heads warm in cold weather. <u>Skills</u> Measure circumference of heads. Create seams Use running stitch, back stitch, blanket stitch. Sewing machine seams. CAD and 3D printer to create a badge to attach to hat</p>	<p><u>Structures & Mechanisms unit</u> <u>Problem:</u> Can a toy move? <u>Design Brief:</u> Design and make a moving toy suitable for a Year 1 child to play with. (moving toys - cam mechanism) <u>Skills</u> Create a CAM mechanism. Use a drill to make off centre hole. Cut and join wood using accurate measurements. Use techniques to strengthen and stiffen structures. To understand that different shaped CAMs create different movements</p>			
Year 6	<p><u>Structures & Mechanisms unit</u> <u>Problem:</u> Can a vehicle carry a fragile object safely? <u>Design Brief:</u> Design and make a vehicle which can carry an egg safely over different terrain. <u>Skills</u> design a product that requires pulleys or gears. To control speed and direction using pulleys and gears. To create electrical circuits with switches. CAD and 3D printer to create body of vehicle. Use joining techniques to reinforce a structure.</p>			<p><u>Food unit</u> <u>Problem:</u> What constitutes a healthy dish? <u>Design Brief:</u> Design and make a healthy dish for a demonstration aimed at Y6 children on healthy living. <u>Skills</u> Work within a budget to create a meal Follow a complex recipe. Understand how an oven/hob is used to heat and cook food. Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p>		<p><u>Textiles unit</u> <u>Problem:</u> How can people keep their clothes clean whilst working in a factory? <u>Design Brief:</u> Design and make an item of clothing for someone to wear when working in a factory (e.g. apron) <u>Skills</u> Measure people to work out sizes. Create templates. Pin, sew and stitch materials together. To use a sewing machine. Combine different fabric shapes. Seam allowances.</p>