

Curriculum Overview Document DT

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<p>Projects linked to early Design and Technology. Food and Hygiene: Baking biscuits Structure: Exploring different materials linked the 3 little pigs. Textiles: Exploring textiles and materials to make dolly peg characters.</p> <p>Continuous Provision Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue. Join different materials and explore different textures Provide children with a range of materials to construct with. Develop cutting techniques and scissor skills (cutting along given lines). Develop precision when sticking a variety of materials (e.g., chick, given outline, glue and feathers) Use a range of objects to build with – bricks, stickle bricks, Lego, wooden blocks etc.</p>					
Year 1	<p>Structure – Rolling Toy Exploring joining techniques (tabs & brackets) to create a strong standing or rolling toy. Links to history topic.</p>		<p>Mechanisms – Pulleys & Levers Using sliders to create a moving picture (simple lever mechanism). Links to art topics.</p>		<p>Food & Hygiene - Fruit Salads. Introduction to chopping ingredients and considering how they work together. Links to geography topic.</p>	
Year 2	<p>Structure - Towers Creating spaghetti and marshmallow towers, exploring how to use shape & positioning to strengthen and make them free standing. Key Skills: <i>Using card strips/levers to create a pop-up mechanism (e.g., Valentine cards, Christmas cards).</i> Links to RE.</p>		<p>Mechanisms – Axel to create movement Creating a wheeled vehicle using a working axel that can be pulled (considering the positioning & size of materials). Possible enrichment opportunities: Visit to/from Discovery Museum, links to George Stephenson/Rainhill tials.</p>		<p>Textiles – Running Stitch Using a running stitch to create a 2D bookmark.</p>	
Year 3	<p>Structure – Nets & Templates Using nets & templates to create a prototype (e.g., Elf house, picture frame, lunch box). Strengthening using cladding (& introducing rendering) building on the use of tabs & brackets. Links to maths topics. Key Skills: <i>Mexican Salsa & Guacamole. Blending and pureeing ingredients.</i></p>		<p>Textiles – African Weaving Using weaving to create a strong material that follows a pattern/design Key Skills: <i>CAD – Creating simple 3D models of forest school vehicles, following a plan.</i></p>		<p>Mechanism - Pulleys Creating a crane using a pulley (building on lifting by combining materials to share weight).</p>	
Year 4	<p>Food & Hygiene - Fake Away Pizza Building on chopping ingredients to shape using the bridge & claw technique. Combining ingredients considering layout. Possible enrichment opportunities: Visit to/from Pizza Hut, Dominos, Morrison's or Asda and link school. Links to geography topic. Key Skills: <i>CAD – Creating virtual mosaics. Comparing designing by hand with designing using ICT.</i></p>		<p>Mechanisms – Wind-Up Movement Shaping plastic to create a self-propelled vehicle (e.g. boat or car) with a wind- up mechanism, comparing the use different methods of propulsion (e.g., wind up, push, pull, hydraulic, electric balloon). Links to science (materials). Key Skills: <i>Electronics – Creating a basic circuit with Raspberry Pi devices to light up LEDs within a character cut-out.</i></p>		<p>Structure - Kites Combining materials to create a kite that is fit for purpose (including the application of appropriate strengthening techniques – e.g., rendering). Links to science (materials). Key Skills: <i>Electronics – Creating a step counter with the BBC:Microbit</i></p>	
Year 5	<p>Textiles – Blanket Stitch & Applique Using a blanket stitch & appliqué to create a 3D Christmas decoration.</p>		<p>Mechanisms – Pulleys & Levers – CAM toy Creating a basic cam toy (building of shaping and joining card to create movement – lift rather than slide).</p>		<p>Structure & Electronics – Buzz Wire Game Measuring & shaping wire to create a buzz wire game. Insert an electrical circuit with a switch. Insert a buzzer (swap with LED from last year). Compare strengthening flat & free-standing objects. Links to science (conductors & insulators) Key Skills: <i>Using market research to create toothbrush prototypes to appeal to KS1 children (molding & shaping plasticine).</i></p>	
Year 6	<p>Food & Hygiene - Soup Consolidating chopping ingredients to facilitate blending & cooking pumpkin soup. Possible enrichment opportunities: Free veg social kitchen in Barmston. St Michael's Church, Mickey's place Key Skills <i>Using CAD to create a 3D model of a Viking Long ship.: .</i></p>		<p>Mechanisms – Wind-Up Movement using Wire Revisit wind-up mechanisms and reapply to create a “flying” butterfly using wire. Compare the similarities & differences between the two mechanisms (plastic vs. wire). Possible enrichment opportunity: Trip to Butterfly World (before project begins) where children explore aesthetics and movement of butterflies.</p>		<p>Structure – Wooden Structure Cutting, joining & strengthening to create a wooden bug hotel. Selecting materials that are fit for purpose & considering sustainability. Key Skills: <i>Electronics – Use Raspberry Pi devices to program LEDs to send simple messages using Morse Code.</i></p>	