



Design and technology Long Term plan

	Preschool	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	<p>Children engage in a broad range of DT activities within continuous provision.</p>	<p>Making Vegetable Soup Skills: Chop, slice, peel; safe knife use. Knowledge: Where vegetables come from; trying new foods. Vocabulary: chop, grate, slice, peel, skin, vegetables. Links: PD (fine motor tools); EAD (express ideas, refine). Future Learning: Leads into KS1 food preparation.</p>	<p>Textiles: Our Fabric Faces Skills: Thread needle; running stitch; sew button; identify fabrics. Knowledge: Basic stitching used decoratively and functionally. Vocabulary: fabric, needle, thread, sew, stitch, button, design, evaluate. Links: NC: design–make–evaluate; sewing techniques. Notes: Use recycled materials; simple patterns. Future: Complex textiles later.</p>	<p>Textiles: Bunting Skills: Choose fabric; cut to pattern; sew pieces; add features. Knowledge: Decorative stitching and construction. Vocabulary: fabric, needle, thread, sew, stitch, design, evaluate. Links: NC: materials; sewing; design–make–evaluate. Notes: Templates/patterns. Future: More complex textiles.</p>	<p>Textiles: Making a Purse Skills: Cut to pattern; sew with different stitches; attach fastener. Knowledge: Purpose/features of purses; labelled designs; evaluation. Vocabulary: fabric, thread, stitch, button/fastener, design, evaluate. Links: NC: textiles; design–make–evaluate. Notes: Decorative stitching; recycled materials. Future: Advanced textiles.</p>	<p>Cooking & Nutrition: Sweet Dishes (Adapting a Biscuit Recipe) Skills: Identify audience/ingredients ; plan flavouring/packaging; evaluate. Knowledge: Design criteria; product design for target users. Vocabulary: recipe, audience, packaging, flavouring, design, evaluate. Links: NC: food prep; design criteria. Notes: Balanced choices. Future: More complex cooking.</p>	<p>Structures: Marblicious (Marble Run) Skills: Investigate free-standing structures; strengthen/stiffen/reinforce; accurate tool use; bending techniques. Knowledge: Stability; component selection; iterative improvement. Vocabulary: structure, components, free-standing, sturdy, stable, strengthen, reinforce. Links: NC: complex structures. Notes: Builds on boats/castles/planes; evaluate & improve.</p>	<p>Mechanisms: Automata Animals Skills: Research animal ideas; explain cam mechanisms; material selection; design criteria; build accurate framework. Knowledge: Cam/follower motion; functional properties; iterative design. Vocabulary: mechanism, cam, follower, gear, pulley, motion, design, evaluate. Links: NC: mechanical systems. Notes: Final mechanical project — showcase complexity and creativity.</p>
Spring		<p>Junk Modelling: A Boat That Will Float Skills: Join, fix, attach; test floating/sinking. Knowledge: Properties for floating; perseverance in making.</p>	<p>Structures: Castles Skills: Identify parts/shapes; join materials; moving parts. Knowledge: Stability, strength; plan–make–evaluate. Vocabulary: design, evaluate, construct,</p>	<p>Mechanisms: Wheels and Axles Skills: Attach wheels to axles; build chassis; test function. Knowledge: Wheel/axle mechanism; motion and rotation.</p>	<p>Mechanisms: Levers & Linkages (Roman Catapult) Skills: Investigate levers; design/build/test; evaluate performance. Knowledge: History/purpose of</p>	<p>Textiles: Cross-Stitch & Appliqué (Book Sleeve) Skills: Create cross-stitch patterns; appliqué design; stitch to attach. Knowledge: Decorative techniques and</p>	<p>Mechanisms: Pop-Up Book for EYFS Skills: Research existing pop-ups; design/plan; name mechanism features; construct; layer/spacers; evaluate. Knowledge: Mechanical systems for motion and</p>	<p>Cooking & Nutrition: International Cuisine (Mexican Tortillas) Skills: Wash/prepare; safe chopping; mix/cook; present; evaluate taste/presentation. Knowledge: Ingredients from different cuisines;</p>

		<p>Vocabulary: join, fix, float, strong, attach, construct, build. Links: PD (tools); EAD (collaborate, refine).</p> <p>Future Learning: Builds towards KS1 structures.</p>	<p>stable, strong, moving parts.</p> <p>Links: NC: build structures.</p> <p>Notes: Link to stories/characters. Future: More complex structures.</p>	<p>Vocabulary: wheel, axle, chassis, rotate, design, evaluate.</p> <p>Links: NC: mechanical systems.</p> <p>Notes: Use toy car examples; races to test. Future: Complex mechanisms.</p>	<p>catapults; pivot, linkage, force.</p> <p>Vocabulary: lever, linkage, pivot, motion, force, design, evaluate.</p> <p>Links: NC: mechanical systems; cross-curricular History. Notes: Test and iterate designs.</p>	<p>functional protection.</p> <p>Vocabulary: cross-stitch, appliqué, fabric, needle, thread, design, evaluate.</p> <p>Links: NC: textiles; sewing techniques.</p> <p>Notes: Encourage creative designs; pattern reading.</p>	<p>interaction; designing for audience.</p> <p>Vocabulary: design, input, motion, mechanism, criteria, model, reinforce.</p> <p>Links: NC: mechanical systems; user-centred design.</p> <p>Notes: Share with EYFS audience; feedback loop.</p>	<p>hygiene; cultural context.</p> <p>Vocabulary: cuisine, ingredients, chop, mix, cook, hygiene, flavours, evaluate.</p> <p>Links: NC: food prep; cultural awareness.</p> <p>Notes: Taste tests; discuss cultural significance.</p>
Summer		<p>Textiles: Sewing Skills Skills: Thread needle; running stitch (“up/down the hole”); hold fabric.</p> <p>Knowledge: Stitching joins fabric; confidence with tools.</p> <p>Vocabulary: stitch, thread, needle, knot.</p> <p>Links: PD (fine motor); EAD (refine techniques). Future Learning: Foundation for KS1/KS2 textiles.</p>	<p>Cooking & Nutrition: Dips and Dippers Skills: Wash, peel, chop; mix dips; evaluate taste/presentation.</p> <p>Knowledge: Fruit/veg sources; hygiene; healthy choices.</p> <p>Vocabulary: fruit, vegetable, chop, peel, mix, hygiene, healthy.</p> <p>Links: NC: food preparation.</p> <p>Notes: Encourage tasting new foods; add moving picture card with levers/sliders.</p>	<p>Cooking & Nutrition: Sandwiches Skills: Spread; assemble; cut safely; evaluate.</p> <p>Knowledge: Healthy fillings; hygiene; balanced meals.</p> <p>Vocabulary: bread, spread, filling, healthy, hygiene, evaluate.</p> <p>Links: NC: food prep. Notes: Tea party showcase.</p>	<p>Cooking & Nutrition: The Great Bread Bake Off Skills: Measure/mix; knead; prove; bake safely; evaluate.</p> <p>Knowledge: Ingredients functions; hygiene; taste/texture analysis.</p> <p>Vocabulary: bread, flavour, texture, knead, mix, hygiene, evaluate.</p> <p>Links: NC: food preparation. Notes: Include science of rising; taste tests; Warburtons history.</p>	<p>Battery-Operated Light (Mechanisms/Electrical Systems) Skills: Make/represent circuits; use switches; select materials; evaluate.</p> <p>Knowledge: How electrical systems work in products; design criteria.</p> <p>Vocabulary: circuit, switch, battery, wire, criteria, technology.</p> <p>Links: NC: electrical systems in products; Science link.</p> <p>Notes: Add structures element (e.g., Trojan horse linked to Greece).</p>	<p>Food: Seasonal Salad Skills: Research seasonality; prep/cook/evaluate meal; safe handling/storage (incl. meat/fish); group recipe development; respond to feedback.</p> <p>Knowledge: Protein proportion; reared/caught/processed ingredients; UK seasonality.</p> <p>Vocabulary: seasonal, protein, reared, processed, proportions. Links: NC: prepare/cook savoury dishes; seasonality.</p> <p>Notes: Link to Year 3 nutrition; include a sewing project during the year.</p>	<p>How can food inspire artists? Skills: Precision collage; grid transfer; advanced clay techniques.</p> <p>Elements: Shape, form, texture, colour.</p> <p>Knowledge: Food inspires art historically; meaning in subject choice.</p> <p>Vocabulary: ceramic, kiln, sculpt, varnish, complementary colours.</p>