

## Design and Technology – Long Term Plan (Mixed Age)

(adapted from data.org.uk)

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Donaldson		EYFS	123Expressive Arts and DesignDesigning by talking about what they intend to do, are doing and have done; Saying who and what their products are for; Drawing what they have made, with some children drawing their ideas before they make; Opportunities to make their own choices and to discuss the reasons for these; Learning procedures for safety and hygiene; Developing practical skills and techniques using a range of materials including food, textiles and construction materials; Developing their knowledge and understanding in relation to mechanisms, structures, food and textiles; Exploring and using a range of existing products; Exploring the designed and made world through the indoor and outdoor environment, and through role play and Learning and using appropriate technical vocabulary.				
		Y1 ONLY YEAR A	<b>Mechanisms</b> Sliders and Levers	<b>Structures</b> Freestanding Structures	Food Preparing Fruit and Vegetables – including cooking and nutrition requirements KS1		
ation Stage *		Y1 ONLY YEAR B	<b>Mechanisms</b> Wheels and Axles	Food Preparing Fruit and Vegetables (including cooking and nutrition requirements KS1)	<b>Textiles</b> Templates and joining techniques		
Dahl	arly Years Foundation Stage	YEAR A	<b>Mechanisms</b> Sliders and Levers	Structures Freestanding Structures	Food Preparing Fruit and Vegetables – including cooking and nutrition requirements KS1		
	Building on the Ea	YEAR B	<b>Mechanisms</b> Wheels and Axles	Food Preparing Fruit and Vegetables (including cooking and nutrition requirements KS1)	Textiles Templates and joining techniques		
Cowell		YEAR A	Structures Shell Structures (including computer- aided design)	Food Healthy and Varied Diet (including cooking and nutrition requirements KS2)	<b>Textiles</b> 2D shape to 3D product		
		YEAR B	Mechanical Systems Levers and linkages	Electrical Systems Simple circuits and switches (including programming and control)	Food Healthy and varied diet (including cooking and nutrition requirements KS2)		



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Walliams	YEAR A	<b>Structures</b> Frame structures	Electrical Systems Simple programming and control	Textiles Combining different fabric shapes (including computer aided design)
	YEAR B	Mechanical Systems Levers and linkages	Electrical Systems Simple circuits and switches (including programming and control)	Food Healthy and varied diet (including cooking and nutrition requirements KS2)
Morpurgo	YEAR A	Structures Frame structures	Electrical Systems More complex switches and circuits (including programming, monitoring and control)	Textiles Combining different fabric shapes (including computer aided design)
	YEAR B	Electrical Systems More complex monitoring and Control	Mechanical Systems Pulleys or gears	Food Celebrating culture and seasonality (including cooking and nutrition requirements KS2)

## <u>EYFS</u>

\*The Y1/2 Project Planners specifically identify what children should ideally have learnt in the EYFS before carrying out the project. Early years teachers will use the flexibility available in the EYFS framework to ensure curriculum content is appropriate to young children's developmental needs. Y1/2 teachers may therefore need to adjust the pitch of Project Planners – either where prior learning from EYFS has not been covered or where more challenge is required in KS1 to move children's learning on.

Key Stage 1 and Key Stage 2

For more detailed resource and planning links for units, please refer to Primary Planning Links document. This document also provides resources and project ideas for links with EYFS EAD ELG.

primary\_planning\_links\_2020b2020101617041206254.pdf (stargeteuwest2.s3.amazonaws.com)



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## PROGRESSION OF KEY VOCABULARY

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Generating Ideas	planning, investigating design, evaluate, make, user, purpose, ideas, product,	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function	user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing	evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations	design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock- up, prototype	function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype
Food	fruit and vegetable names, names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients,	fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients	name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance , smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate , protein, vitamins, nutrients, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble	ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate , protein, vitamins, nutrients, nutrients, nutrients, nutrients, nutrients, nutrients, nutrients, nutrients, sutried, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble
Structures	cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder		shell structure, three- dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision,		frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent	
Textiles	joining and fir techniques, and compone	ishing tools, fabrics ents, template,	fabric, names of fabrics, fastening, compartment, zip, button, structure,		seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template,	



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	pattern pieces, mark out, join, decorate, finish		finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance		pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings,
Mechanisms / Mechanical Systems	slider, lever, pivot, slot, bridge/guide , card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards	vehicle, wheel, axle, axle holder, chassis, body, cab assembling , cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocatin g	follower, ratio switch, circuit exploded dia	velt, gear, rotation, spindle, driver, , transmit, axle, motor, circuit, diagram, annotated drawings, grams, mechanical system, em, input, process, output
Electrical Systems			series circuit, fault, connection, toggle switch, push-to-make switch, push- to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device		reed switch, toggle switch, push- to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, parallel circuit