

Barwic Parade Community Primary School

Design Technology Progression Grid

The progression of skills within art ranges across 5 areas within our curriculum. In every unit, children develop skills in designing, making and evaluating and broaden their subject specific language. Knowledge is developed and built upon within all units across the school, reinforcing learning and allowing children to make connections. The different areas are as follows:

Design, Make, Evaluate

Vocabulary progression

Structures

Mechanisms

Food

Textiles

Electrical (KS2)

Electrical unit in 3/4 only. Other electricity content taught through science curriculum

	EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Design, Make, Evaluate	<p><u>ELG: Speaking</u></p> <ul style="list-style-type: none"> participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary express their ideas and feelings about their experiences in full sentences <p><u>ELG: Creating with Materials</u></p> <ul style="list-style-type: none"> share their creations, explaining the process they have used 	<ul style="list-style-type: none"> plan simple product designs for a brief or purpose use known key vocabulary to label and annotate designs use a wide range of skills to make products evaluate products against their purpose critically analyse skills, processes and resources used 	<ul style="list-style-type: none"> research existing products for inspiration plan detailed product designs for a brief of purpose use key vocabulary to label and annotate designs use a range of art and DT skills to make products evaluate products against their purpose critically analyse skills, processes and resources used identify and plan for areas of development 	<ul style="list-style-type: none"> research existing products for inspiration and magpie ideas plan detailed, to scale product designs using key sketching skills use key vocabulary to annotate and label designs use a range of art and DT skills to make products continually evaluate product, correct errors and make improvements evaluate products against their purpose critically analyse skills, processes and resources used
Design, Make, Evaluate Vocabulary	design, designer, materials, tools, construct, build, purpose			
	brief, product, evaluate, label, analyse, annotate			
	intended user, annotated sketch, component, design criteria, area for improvement, existing product, research, target market			
	innovative, to scale sketches, exploded sketch			

	EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Structures	<p><u>ELG: Creating with Materials</u></p> <ul style="list-style-type: none"> safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function share their creations, explaining the process they have used 	<ul style="list-style-type: none"> create simple joins and fixings use simple strengthening & stiffening techniques creating free standing structures for a purpose make accurate cuts using scissors correctly mark materials before cutting and sometimes measure begin to choose the most effective joining methods for the task/materials test and sort materials/resources on effectiveness evaluate products effectively 	<ul style="list-style-type: none"> strengthen and stiffen joins and structures consider shapes of structures for strength select the most appropriate materials, techniques and tools for a product share ideas to create the best product use cross bracing techniques test and improve a structure create free standing structures join multiple structures evaluate products effectively 	<ul style="list-style-type: none"> use advanced joining techniques and select the most appropriate for a product use a range of strengthening and stiffening techniques, selecting the most appropriate for a product accurately measure and prepare materials for a product use tools safely to cut a range of materials including wood use tools to cut wood test and improve a structure evaluate products effectively
Structures Vocabulary	make, cut, join, strong, structure			
	fold, fix, tower, weak, base, top, free-standing, flange, I-brace, slots, tabs, split pin, material, properties, strengthen, stiffen			
	cross bracing, scoring, score bend, arch, supports, weight-bearing,			
	hand saw, sandpaper, frame structure, reinforce, stability, prototype, model			

	EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Mechanisms	<p><u>ELG: Creating with Materials</u></p> <ul style="list-style-type: none"> safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function share their creations, explaining the process they have used 	<ul style="list-style-type: none"> explore and understand how wheels and fixed axles work know how the positioning and size of wheels/axels affect movement identify wheels and axels on existing products explore and understand simple levers and sliders know how the positioning of a pivot or slot affects movement use a range of fixing and strengthening techniques to secure moving parts evaluate products effectively 	<ul style="list-style-type: none"> explore and understand and a range of levers and linkages, and know how each one creates different movement know how fixed and loose pivots differ and affect moving parts know how the positioning of a pivot or slot affects movement use a range of fixing and strengthening techniques to secure moving parts evaluate products effectively 	<ul style="list-style-type: none"> explore a range of shaped CAMs and understand how each one create different movements identify key parts of a CAM and use key vocabulary know how to change a mechanisms movement by altering key parts of a CAM use a range of tools to create a product, including saws draw on prior knowledge and skills to create moving products evaluate products effectively
Mechanisms Vocabulary	wheel, vehicle, movement			
		axle, chassis, body, dowel, mechanism, slider, lever, pivot, slot, card strip, paper fastener, join, pull, push, up, down, straight, forwards, backwards, moving part		
			linkage, guide, fixed/loose pivot, linear, rotation, oscillating, reciprocating	
				cam, peg cam, snail cam, pear cam, off-centre cam, follower, shaft, crank, handle,

	EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Food	<p><u>ELG: Fine Motor Skills</u></p> <ul style="list-style-type: none"> use a range of small tools, including scissors, paint brushes and cutlery <p><u>ELG: Creating with Materials</u></p> <ul style="list-style-type: none"> safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function share their creations, explaining the process they have used 	<ul style="list-style-type: none"> peel, chop, cut, mash, boil, bake, grate, cook use seasoning and flavours discuss and understand where food comes from discuss and understand what a vegetarian dish is evaluate products effectively 	<ul style="list-style-type: none"> chop, cut, grate, crush, mix and measure food chop/cut in different ways/styles use seasoning and flavours discuss and understand where food comes from know what fair trade is compare quality/price of goods design a fair trade product design food packaging evaluate products effectively 	<ul style="list-style-type: none"> research existing products design complimentary products design to a brief and target market measure, mix, melt, flavour use moulds and shaping techniques to present food use decorative techniques to present food design branding and packaging evaluate products effectively
Food Vocabulary	food, taste, flavour, names of common foods – fruits and vegetables			
	peel, chop, cut, mash, boil, bake, grate, cook, seasoning, vegetarian, dish, cuisine, oven safety			
	crush, mix, measure, slice, julienne, dice, baton, fair trade, quality, price, packaging			
	melt, complimentary product, mould, shaping, decorating, garnish, branding			

	EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Textiles	<p><u>ELG: Fine Motor Skills</u></p> <ul style="list-style-type: none"> use a range of small tools, including scissors, paint brushes and cutlery <p><u>ELG: Creating with Materials</u></p> <ul style="list-style-type: none"> share their creations, explaining the process they have used safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function 	<ul style="list-style-type: none"> explore existing products and identify features use simple stitching techniques to join fabrics use a pattern piece or template effectively use cutting skills on fabric pieces use applique to join fabrics safely use pins and needles 	<ul style="list-style-type: none"> explore existing products and identify features use a range of stitching techniques to join fabrics and select the appropriate stitch for a product evaluate stitches based on strength and effectiveness effectively use cutting skills on fabric pieces use applique to join fabrics add embellishments to a product such as decorative stitches and beads safely use pins and needles 	<ul style="list-style-type: none"> explore existing products and identify features use a range of stitching techniques to join fabrics and select the appropriate stitch for a product repurpose and recycle garments effectively use cutting skills on fabric pieces use applique to join fabrics add embellishments to a product such as decorative stitches and beads safely use pins and needles
Textiles Vocabulary	material, fabric, clothes, bags (other material product names)			
	running stitch, back stich, pin, needle, thread, pattern piece, template, applique,			
	embellishments, beads, decorative stitches, fabric dye, seam			
				recycle, repurpose, make, do and mend, buttons, hem, fastening, patches, garment, right side, wrong side

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Electrical		<ul style="list-style-type: none"> • explore simple circuits • identify when a circuit will or will not work • understand how and why electricity is used • identify a range of products powered by electricity <p><i>*taught in science curriculum*</i></p>	<ul style="list-style-type: none"> • create a simple circuit • identify key components in an electrical circuit and their uses • make a useful product for a purpose using a simple circuit 	
Electrical Vocabulary			circuit, fault, connection, switch, battery, battery holder, bulb, bulb holder, insulator, conductor, electricity, buzzer, wire, wire strippers, electrical products, power	