



'Dream. Believe. Achieve'

Polite

Positive

Proud

Persistent

Design Technology Progression Grid Document 2021/2022

EYFS	Three & Four year olds	Reception	ELG
Expressive Arts and Design	<p>Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</p>	<p>Explore, use and refine a variety of artistic effects to express their ideas and feelings.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources and skills.</p>	<p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>Share their creations, explaining the process they have used.</p>
Personal, Social and Emotional Development	<p>Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.</p>		
Physical Development	<p>Use large-muscle movements to wave flags and streamers, paint and make marks.</p> <p>Choose the right resources to carry out their own plan.</p> <p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p>	<p>Progress towards a more fluent style of moving, with developing control and grace.</p> <p>Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</p> <p>Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.</p>	<p>Use a range of small tools, including scissors, paintbrushes and cutlery.</p>



INSPIRE
Partnership Multi-Academy Trust

'Building a community of school-inspiring excellence in everyone'

Respect

Responsibility

Recognition

Resilience



'Dream. Believe. Achieve'

Polite Positive Proud Persistent

Understanding the World		Explore how things work.					
MECHANISMS							
SKILLS	Year One	Year Two	Year Three	Year Four	Year Five	Year Six	
	To apply simple methods to fix wheels and axels to a product	To operate sliders and levers To apply some simple fixing techniques and when to use them (i.e. masking tape to secure a lollipop stick slider)		To use lever and linkage mechanisms To increase accuracy when measuring, marking out and cutting (i.e. measure in mm rather than cm or inches)	To accurately draw an exploded diagram		
VOCABULARY	Wheels & Axles: vehicle, wheel, axle, axle holder, chassis, body, cab, assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, names of tools, equipment and materials used, design, make, evaluate, purpose, user, criteria, functional	Slider & Leavers: slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, design criteria, product, function		Leavers & Linkages: mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating, user, purpose, function, prototype, design criteria, innovative, appealing, design brief	Pulleys or Gears: pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor. circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output, design decisions, functionality, innovation, authentic, user, purpose, design specification. design brief		



INSPIRE
Partnership Multi-Academy Trust

'Building a community of school- inspiring excellence in everyone'

Respect Responsibility Recognition Resilience



'Dream. Believe. Achieve'

Polite

Positive

Proud

Persistent

TEXTILES

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
SKILLS		To build ideas form a template To work with a variety of fabrics. To apply simple stitch techniques	To strengthen, stiffen and reinforce existing fabrics To securely join two pieces of fabric together using a range of stitches		To combine multiple different fabrics to create a 3D product To apply embroidery To apply different stitch types (including finishing stitches)	
VOCABULARY		Template Quality Suitable features dye overstitch design fray mock-up seam	Fastening Compartment Zip Finishing technique Function Prototype Back stitch Felted Woven Knitted Bonded		Specification tacking working drawing clasp pinking shears design criteria hem, reinforce stem stitch satin stitch tie dye	

ELECTRICAL SYSTEMS

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
SKILLS				To control and program a product using computing (i.e. beebots) To construct a simple series circuit To make a range of simple secure connections (twisting wires together, wrapping		To incorporate simple self-made switches in a circuit To test components in more complex circuits (series and parallel) To assess faults in their own electrical systems



INSPIRE
Partnership Multi-Academy Trust

'Building a community of school-inspiring excellence in everyone'

Respect

Responsibility

Recognition

Resilience



'Dream. Believe. Achieve'

Polite Positive Proud Persistent

				ends, taping over, connecting block)		
VOCABULARY				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		series circuit, parallel circuit, names of switches and components, input device, output device, system, monitor, control, program, flowchart

FOOD						
	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
SKILLS	To use simple cutting tools to prepare soft fruit and vegetables To follow simple health and safety procedures To peel, chop, slice and grate foods.	To prepare simple dishes safely and hygienically, without using a heat source To use techniques such as cutting, peeling and grating with greater confidence and independency	To chop a wider range of foods using different techniques i.e. claw grip, bridge grip. To use sensory information to evaluate a variety of ingredients	To chop a wider range of foods using different techniques i.e. claw grip, bridge grip. To use sensory information to evaluate a variety of ingredients	To apply advance methods for mixing ingredients i.e. rubbing in To measure ingredients accurately using different units To follow a recipe	To apply advance methods for mixing ingredients i.e. rubbing in To measure ingredients accurately using different units To follow a recipe
VOCABULARY	Preparing Fruit & Vegetables: 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, planning, investigating tasting, arranging, popular, design, evaluate, criteria	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, planning, design criteria, purpose, user, annotated sketch, sensory evaluations		Celebrating Culture & Seasonality: Ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs, fat, sugar, carbohydrate, protein, vitamins, 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, design specification, innovative, research, evaluate, design brief		



INSPIRE
Partnership Multi-Academy Trust

'Building a community of school-inspiring excellence in everyone'

Respect Responsibility Recognition Resilience



'Dream. Believe. Achieve'

Polite

Positive

Proud

Persistent

STRUCTURES						
SKILLS	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
		<p>To make freestanding structures stronger, stiffer and more stable</p> <p>To join some simple materials</p> <p>To apply some finishing techniques to complete their structure</p> <p>To describe the structure using the name of simple 2D shapes</p>		<p>To apply sophisticated methods for stiffening/strengthening structures</p> <p>To describe a product using the names of more complex 3D shapes</p> <p>To cut and score materials</p> <p>To test a material's strength</p>		<p>To stiffen, strengthen and reinforce a range of 3-D frameworks</p> <p>To use a range of tools i.e. junior hacksaws, G-clamps, bench hooks, hand drills safely</p>
VOCABULARY	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
	:	<p>Freestanding Structures</p> <p>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, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>		<p>Shell Structures:</p> <p>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, evaluating, design brief design criteria, innovative, prototype</p>		<p>Frame Structures:</p> <p>Frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional</p>



INSPIRE
Partnership Multi-Academy Trust

'Building a community of school-inspiring excellence in everyone'

Respect

Responsibility

Recognition

Resilience