Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

EYFS	Nursery	Reception
See long term overview for : **Substantive knowledge** **Procedural Knowledge** **Key Vocab**	• 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. • Choose the right resources to carry out their own plan. • Explore how things work. • Use one-handed tools and equipment, for example, making snips in paper with scissors • Explore different materials freely, to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Join different materials and explore different textures. • Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park • Be increasingly independent in meeting their own care needs- washing hands before handling food	• Develop their small motor skills so that they can use a range of • Use their core muscle strength to achieve a good posture • Use a range of small tools, including scissors, paintbrushes and cutlery. • tools competently, safely and confidently Return to and build on their previous learning, refining ideas and developing their ability to represent them • Create collaboratively, sharing ideas, resources and skills. • 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. • Make use of props and materials when role-playing characters in narratives and stories. • Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food

EYFS	Nursery					Reception				
	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING AND NUTRITION	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING AND NUTRITION
	To know what they are going to make before they make it. To know how to share what they are doing with their key worker.	To know how to safely explore a variety of tools. To know how to explore joining different materials together. To know how to thread.	To know what they like about their creation.	To know how to make their creation more stable (e.g. a tower). To know how to distinguish between moving and non-moving elements.	To know what foods they like to eat. To know there are healthy and unhealthy foods. To know how to use a knife and fork when supported by an adult.	To know what a product is. To know how to discuss what they want to make. To know to discuss problems and how they might be solved as	To know that designs can help shape our thinking before making. To know how to choose the right resources to carry out their own plan, (e.g. cutting tool for the playdough).	To know how to evaluate their product using appropriate vocabulary including how they might make it better.	To know how to select correct materials which allow for movement.	To know the names of well-known fruit and vegetables. To know how to make some simple healthy food choices. To know the importance of healthy food choices.

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Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

					To know how to wash hands before and after eating. To know how to combine different ingredients to create a dish with adult support.	they arise, with an adult. To know how to use drawing to create a simple plan.	To know different techniques for joining materials, such as how to use adhesive tape and different sorts of glue. To know how to thread continuously (e.g. using lacing boards). To know how to select the appropriate materials to create a desired aesthetics.			

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DESIGN	**To know how to use own ideas to design a**	**To know the purpose and audience of their**	**To know how to prove that a design is fit for**	To know how to use ideas from other people when	**To know how to design with a range of initial**	**To know how to justify design choices and planning in**

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Substantive knowledge **Procedural Knowledge** **Vocabulary**	**functional product.** **To know how to describe how their own idea works**. I can explain to someone else how they want to make their product. I can draw a simple plan with support from templates before making. Planning, investigating design, evaluate, make, user, purpose, ideas, product.	**product through design criteria set by the teacher.** **To know how to use IT to communicate and research ideas where appropriate (e.g. taking pictures and annotating them).** I can explain why they have chosen specific textiles or materials. I can draw a simple design and label the parts of their product. Investigating, planning, design, make, evaluate, user, purpose,	**purpose and meets the user's needs in line with the design criteria.** I can design a product and make sure that it looks appealing. I can draw annotated designs with labels that detail their material choices and suitability of the given materials User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function,	designing (e.g. creating a mood board of existing products) To know how to produce a design criteria to inform the designing and making process. I can communicate ideas through annotated sketches that show different viewpoints of the product. Evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning,	**ideas using computer- aided design (CAD) where appropriate (e.g. CAD for packaging).** **To know how to explain how a product will appeal to a specific audience and how it meets the purpose through creating their own design criteria.** I can create annotated 3D drawings of their design on isometric or squared paper. Design decisions, functionality,	**terms of audience and purpose.** **To know how to show that culture and society is considered in plans and design criteria.** I can draw detailed 3D designs using exploded diagrams or cross sectional drawing where appropriate to display finer details. Function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		ideas, design criteria, product, function.	planning, design criteria, annotated sketch, appealing.	annotated sketch, sensory evaluations.	authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype	
MAKE **Substantive knowledge** **Procedural Knowledge**	**To know how to use own design plan to make something.** **To know how to use tools safely for a specific purpose (e.g. to cut, shape or to join).** I can assemble and join materials	**To know how to make a mock-up of their design where appropriate (e.g. paper patterns for puppets).** **To know how to identify and name a selection of hand tools** **To know how to choose tools and materials and explain why they**	**To know how to select the most appropriate tools for a given task** **To know how to choose the right equipment and materials (including textiles, construction materials and/or ingredients).** **To know how to select the most appropriate**	**To know which tools to use for a particular task and show knowledge of handling the tool** **To know which material and/or component is likely to give the best outcome based on its properties.** I can mark, measure, cut and join accurately.	**To know how to make a prototype before making a final version.** **To know and use a range of tools and equipment competently and safely.** I can carry out finishing techniques to enhance the appearance and function of their	**To know which tool to use for a specific practical task.** **To know how to use any tool correctly and safely.** **To know why a specific tool is best for a specific action.** I can pin, sew and stitch materials together to create a product.

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Vocab	(including construction materials) using a variety of methods. I can use simple sewing techniques with support or scaffolded resource. 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,	**have chosen them** I can join materials and components in different ways I can cut and join fabric to make a simple product. I can use simple sewing techniques. I can carry out finishing techniques that have been modelled by the teacher. vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining,	**technique for shaping and joining.** I can work accurately to measure, make cuts and make holes. I can choose finishing techniques to improve the appearance of their products using a range of equipment including ICT. shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking	I can sew, weave or knit using a range of stitches. 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, fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance,	product. frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent. 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	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. seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	square, rectangle, cuboid, cube, cylinder. joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish, slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards	shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision,	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating		fastenings used, pins, needles, thread, pinking shears, fastenings.
	To know how to explore a	**To know how to explore and**	**To know why existing products**	**To know how to evaluate existing**	**To know how to collect**	**To know how key events and**

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EVALUATE **Substantive knowledge** **Procedural Knowledge** **Key Vocab**	**range of existing products and describe what makes it work well to inform their own choices** I can explain went well with their own work against a design criteria Planning, investigating design, evaluate, make, user, purpose, ideas, product.	**evaluate a range of existing products describing what makes it work well and not so well to inform their own choices** I know what was successful and less successful in the model they have made against a design criteria Investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function.	**have or have not been successful to inform their own designs** **To know why a product has or has not been successful.** I can improve finished product in relation to the design criteria. User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing.	**products for both their purpose and appearance.** **To know how to evaluate their own and others final product against the design criteria.** I can evaluate and suggest improvements for their own designs. Evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations.	**information from investigating existing products and research using ICT where appropriate.** **To know key events and individuals that have led to existing products.** I can evaluate appearance and function against the design criteria. I can suggest alternative plans using feedback from others; outlining the positive features and draw backs. Design decisions,	**individuals have shaped the products that exist today.** **To know how to evaluate their own and others finished product against the design criteria.** I can test and evaluate their own prototype on a specified audience (where possible) and use feedback on final product. Function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype.

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype.	
TECHNICAL KNOWLEDGE Substantive knowledge **Procedural Knowledge**	**To know how to make their own model stronger / stiffer.** I can make a simple product that moves. cut, fold, join, fix structure, wall, tower, framework, weak, strong, wood, plastic circle, triangle,	**To know how to make a model stronger, stiffer (if appropriate) and more stable.** **To know how to use wheels and axles, when appropriate to do so.** **To know how simple mechanisms work (e.g. sliders,**	**To know how to strengthen a product by stiffening a given part or reinforce a part of the structure.** I can create a product with a simple mechanism (e.g. gears, pulleys, cams, levers and linkages). shell structure, three-dimensional	**To know how to apply scientific knowledge of electrical systems to their structural or mechanical product (e.g. series circuits incorporating switches, bulbs, buzzers and motors).** I can use IT where appropriate to add to the quality of the product (program,	**To know how to apply scientific knowledge to their product design by using pulleys, cams, gears, levers and linkages.** I can use IT products to program, monitor and control their products. frame structure, stiffen,	**To know how to use knowledge to improve a made product by strengthening, stiffening or reinforcing.** **To know which IT product would further enhance a specific product.** I can use electrical systems correctly and accurately to enhance a given

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Vocab	square, rectangle, cuboid, cube, cylinder. joining and finishing techniques, tools, fabrics and components, template, mark out, join, slider, lever, pivot, slot, bridge/guide,	**levers, wheels and axels).** vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	(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,	monitor and control). series circuit, fault, connection, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating	strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent. 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	product. reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), series circuit, parallel circuit. seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings.
	To know where fruit and vegetables	**To know where a variety of foods come from.**	**To know when food is available for harvesting and**	**To know that animals are reared and caught for food.**	**To know where and how certain foods are**	**To know how to explain how food ingredients should**

Dovecote Primary **Design Technology** Progression Map

Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
COOKING AND NUTRITION **Substantive knowledge** **Procedural Knowledge** **Key Vocab**	**come from.** **I know which foods are healthy and which are not.** I can cut food safely I can use basic food handling, hygiene practices and personal hygiene. I can follow a given recipe to create a cold dish. fruit and vegetable names, names of equipment and utensils sensory	**I know about foods that support good health and the risks of eating too much sugar.** I can follow safe procedures for food safety and hygiene. I can follow a given healthy recipe to create a hot dish. fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour,	**understand seasonality.** **I know what a balanced diet looks like.** I can demonstrate hygienic food preparation. I can weigh out ingredients and follow a given healthy recipe to create a dish. name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist,	**To know safe practices in the kitchen and can identify hazards (e.g. hazards when using an oven).** I can weigh and measure accurately (timings, dry ingredients and liquids) to create a dish. 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,	**processed.** **I know how to be both hygienic and safe in the kitchen.** I can prepare a healthy meal by selecting the appropriate ingredients in the first place (using appropriate cooking techniques). ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients,	**be stored and give reasons.** **I know the difference between a savoury and sweet dish and select ingredients accordingly.** I can prepare a healthy meal by selecting the appropriate ingredients in the first place (using appropriate cooking techniques). ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins,

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Substantive Knowledge, Procedural Knowledge, Key Vocabulary.

AREAS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	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.	hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients	cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	frozen, tinned, processed, seasonal, harvested healthy/varied diet	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	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