Design and Technology Skills Progression

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design, make, evaluate and improve	Explore objects and talk about features. Design a product for a purpose. **Key vocabulary:** plan, investigate, design, evaluate, make, ideas.	Explore objects to identify how they have been created. Design a product for a purpose. **Key vocabulary:** planning, investigating design, evaluate, make, user, purpose, ideas, product.	Explore objects to identify how they have been created. Design a product for a purpose. Refine designs as work progresses. **Key vocabulary:** investigating, planning,	Design with purpose. Refine work and techniques as work progresses, continually evaluating the product design. Use software to design and represent product designs.	Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating	Combine elements of design from a range of designs giving reasons for choices. Ensure products have a high-quality finish, using art skills where appropriate. Use prototypes, cross-sectional	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. Create innovative designs that improve upon existing products. Evaluate the design of

			design, make, evaluate, user, purpose, ideas, design criteria, product, function.	**Key vocabulary:** user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing.	the product design. Use software to design and represent product designs. **Key vocabulary:** evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch,	diagrams and computer aided designs to represent designs. **Key vocabulary:** design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype.	products so as to suggest improvements to the user experience. **Key vocabulary:** function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype.

					sensory evaluations.		
Food	Know the importance for good health of physical exercise and a healthy diet. Handle equipment including knives effectively. **Key vocabulary:** fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft,	Hygiene. Use a knife to cut, peel and grate. Weigh using cups and scales. Assemble ingredients. Understand that food has to be farmed, grown or caught. **Key vocabulary:** fruit and vegetable names, names of equipment and	Hygiene. Measure using grams. Prepare simple dishes without a heat source. Name food groups. Understand 5 portions of fruit & veg. The "Eat well" plate. **Key vocabulary:** fruit and vegetable names,	Follow a recipe. Assemble & cook predominantly savoury ingredients. Controlling oven temperature. Know that to be active and healthy, food and drink is required. Use chopping, slicing, grating, mixing, spreading, kneading and baking.	Follow a recipe. Assemble & cook ingredients. Controlling oven temperatur e. Know about a healthy diet. Know that to be active and healthy, food and drink are required. Use chopping, slicing, grating,	Understand importance of correct storage using knowledge of micro organisms. Demonstrate a range of baking & cooking techniques. Use chopping, slicing, grating, mixing, spreading, kneading and baking. Understand the importance of nutrients,	Measure accurately. Calculate ratios of ingredients. Create & refine recipes. Demonstrate a range of baking & cooking techniques. Use chopping, slicing, grating, mixing, spreading, kneading and baking. Understand the

	juicy, crunchy, sweet, sticky, smooth, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients.	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.	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.	**Key vocabulary:** 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,	mixing, spreading, kneading and baking. **Key vocabulary:** 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,	water and fibre. **Key vocabulary:** 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,	importance of nutrients, water and fibre. **Key vocabulary:** 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,

				processed, seasonal, harvested healthy/varied diet.	caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet.	utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble.	utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble.
Textiles and materials	Handle equipment including scissors effectively. Explore different materials. To use a running stitch when threading on a lacing card.	Cut materials safely. Demonstrate gluing and combining materials to strengthen. To use a running stitch with a needle and thread. Explore a variety of textiles.	Measure & mark to the nearest centimetre. Demonstrate tearing, cutting folding & curling. Glue using hinges. Shape textiles using templates.	Measure & mark to the nearest millimetre. Select appropriate joining techniques e.g. gluing, hinges or combining materials to strengthen. Understand the need for	Measure & mark to the nearest millimetre. Cut and shape using slots. Select appropriate joining techniques e.g. gluing, hinges or combining materials to strengthen.	Cut with precision using appropriate tools for material tools. Refine finish by sanding or more precise scissor cutting. Join textiles with a	Cut with precision using appropriate tools for material tools. Refine finish by sanding or more precise scissor cutting. Join textiles with a

	Explore a variety of textiles. **Key vocabulary:** cut, tear, glue, join, thread, lace, running stitch, in, out, under, over, through, wool, scissors, materials (fabric, card etc), decorate, finish.	**Key vocabulary:** cut, tear, glue, join, thread, needle, running stitch, in, out, under, over, through, yarn, wool, cotton, tools, fabrics and components, template, pattern pieces, mark out, decorate, finish.	Join textiles using running stitch. Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing). **Key vocabulary:** cut, tear, glue, join, thread, needle, running stitch, yarn, wool, cotton, decorate, finish, tools, fabrics and components, template,	a seam allowance. Join textiles with appropriate stitching. Select the most appropriate techniques to decorate textiles. **Key vocabulary:** fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness,	Understand the need for a seam allowance. Join textiles with appropriate stitching. Select the most appropriate techniques to decorate textiles. **Key vocabulary:** fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique,	combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles. **Key vocabulary:** seam, seam allowance, wadding, reinforce, right side, wrong side,	combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles. **Key vocabulary:** seam, seam allowance, wadding, reinforce, right side, wrong side,

			pattern pieces, mark out, decorate, finish.	stiffening, templates, stitch, seam, seam allowance.	strength, weakness, stiffening, templates, stitch, seam, seam allowance.	hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings.	hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings.
Electricals, electronics and computing	Know some items need a battery for power. **Key vocabulary:** battery, charge, remote control, energy.	Understand batteries run low, can be damaged. Explore programmable bee-bots. **Key vocabulary:** battery, charge, remote control,	Understand batteries run low, can be damaged. **Key vocabulary:** battery, battery holder, charge, remote control, energy, power, robot,	Create electrical circuits. Series and parallel. Control and create models using software designed for this purpose. **Key vocabulary:**	Create electrical circuits. Series and parallel. Control and monitor models using software designed for this purpose. **Key vocabulary:**	Create circuits using kits that use a number of components e.g., LED resistors transistors and chips. Make products through stages of prototypes, making continual refinements	Create circuits using kits that use a number of components e.g., LED resistors transistors and chips. Write code to control and monitor models or products.

		energy, power, robot, rechargeable.	rechargeable, circuit, fault.	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.	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.	through digital technology. Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. Write code to control and monitor models or products. **Key vocabulary:** reed switch, toggle switch, push-to-make	**Key vocabulary:** 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,

						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.	parallel circuit.
Textiles							

	Key vocabulary: tools, fabrics, join, decorate, finish.	**Key vocabulary:** joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish.	**Key vocabulary:** joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish.	**Key vocabulary:** fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance.	**Key vocabulary:** fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance.	**Key vocabulary:** 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.	**Key vocabulary:** 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.
Construction	Experiment with a range of joining materials (glue, tape, string etc). Use construction	Use materials to practise gluing and nailing to make and strengthen products.	Use materials to practise drilling, screwing, gluing and nailing to make and strengthen products.	Choose suitable techniques from drilling, screwing, gluing & nailing to strengthen materials	Choose suitable techniques from drilling, screwing, gluing & nailing to strengthen materials	Develop a range of practical skills to create products using: cutting, drilling,	Develop a range of practical skills to create products using: cutting, drilling, screwing,

	kits, junk to build with a purpose in mind. **Key vocabulary:**	**Key vocabulary:** 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.	**Key vocabulary:** 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.	and construct products. **Key vocabulary:** 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,	and construct products. **Key vocabulary:** 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,	screwing, nailing, gluing, filing and sanding. **Key vocabulary:** frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent.	nailing, gluing, filing and sanding. **Key vocabulary:** frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent.

				reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision.	material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision.		
Mechanics	Name different types of transport. Explore lift the flap books, wind-up toys and those with moveable wheels. **Key vocabulary:**	Investigate levers, wheels & winding mechanisms. **Key vocabulary:** slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join,	Investigate levers, wheels & winding mechanisms. **Key vocabulary:** vehicle, wheel, axle, axle holder, chassis, body, cab	Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product e.g. levers, winding mechanisms, pulleys and gears.	Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product e.g. levers, winding mechanisms, pulleys and gears.	Convert rotary motion to linear using cams. Use combinations of electronics & mechanics in product design. **Key vocabulary:**	Convert rotary motion to linear using cams. Use combinations of electronics & mechanics in product design. **Key vocabulary:** pulley, drive belt, gear,

		pull, push, up, down, straight, curve, forwards, backwards.	assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used.	**Key vocabulary:** mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating.	**Key vocabulary:** mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating.	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.	rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output.