Northchapel Primary School
Growing kind and curious children who aspire to succeed.

Early years	0-3 Expressive Arts and Design	3-4 Expressive Arts and Design	ELG Expressive Arts and Design Creating with Materials ELG
	Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Make simple models which express their ideas.	Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. 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.	Children at the expected level of development will: - 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;

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Generating Ideas	To design products for themselves following design criteria. To use pictures and words to plan. Work in a range of contexts (imaginary, home, school, wider community, story based).	To design products for themselves and others based on design criteria. Describe own ideas by talking, drawing, templates, mock- ups and, where appropriate, ICT. Work confidently in a range of contexts (imaginary, home, school, wider community, story based).	Create a design that meets a range of requirements. Consider the equipment and tools needed when planning. Describe a design using an accurately labelled diagram, and use words.	Generate more than one idea for how to create a product. Gather information to help design a successful product (i.e. asking for other views) Produce detailed plan with labelled diagrams, written explanation and step-by step guide. Suggest improvements to develop and refine a planned idea.	Generate a range of ideas after collating relevant information (i.e. user views) Produce a detailed plan with step by step instructions, cross sectional diagram and prototypes.	Use a range of information to inform design. (i.e. market research, surveys, interviews, questionnaires or web based resources). Produce a detailed plan, with cross-sectional diagrams and computer aided designs. Work within constraints, refining and justifying plans are necessary.

Make	Create a design that meets a range of requirements. Consider the equipment and tools needed when planning. Describe a design using an accurately labelled diagram, and use words.	Explain what is being made and why the audience will like it. Choose appropriate tools and equipment, describing and explaining why they are being used.	Use a range of tools and equipment with accuracy. Measure, mark out, join, assemble materials and components with accuracy.	Use a range of tool and equipment with accuracy. Measure, mark out, join, assemble materials and components with accuracy.	Use a range of tools and equipment expertly. Consider the aesthetic qualities and functionality of own work when making.	Use a range of tools and equipment precisely. Consider the aesthetic qualities and functionality of my product as making it, refining details as necessary.
Evaluate	To explore a range of existing products and talk about what is good and bad about them. Say whether the product does what it is meant to (does it fit the design criteria) and how it could be improved.	Describe how their own and pre-existing products work, evaluating what went well and what could be done differently. Say whether their own product does what it is meant to (does it fit the design criteria) and suggest ways to improve or do things differently.	Evaluate own and existing products. Suggest what could be changed to improve a design, beginning to link this to the design brief.	Evaluate the appearance and usability of own and pre-existing products. Explain how the original design could be improved, considering the appearance and usability and linking this to the design brief.	Evaluate the appearance and function of a product (own and pre-existing) against the design criteria, saying whether it is fit for purpose. Suggest improvements that could be made considering materials and methods that have been used.	Evaluate the appearance and test the function of a product (own and existing) against the original criteria, saying whether it is fit for purpose. Suggest improvements that could be made, considering materials, methods, sustainability of the product and how much a product costs to make.
Food and Nutrition	Know how to peel, cut, grate and mould foods (with close supervision) understand where food comes from.	Know how to peel, cut, grate and mould foods (with supervision) Use the basic principles of a healthy and varied diet.	Know how to peel, cut, grate mix, and mould and begin to cook foods (using toasters and microwaves) Understand and	Know how to peel, cut, grate mix, and mould and cook foods (using toasters and microwaves) Prepare and cook a variety of	Cut, mix, mould and begin to use hobs to heat food with appropriate supervision. Prepare and cook a variety	Cut, mix, mould and use hobs to heat food with developing independence. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and

			apply the principles of a healthy and varied diet	predominantly savoury dishes.	of predominantly savoury dishes using a range of cooking techniques	processed.
Construction	Use sheet materials and construction tools with appropriate supervision.	Use sheet materials and construction tools with appropriate supervision.	Use sheet materials and construction tools with appropriate supervision.	Use sheet materials and construction tools with appropriate supervision.	Use sheet materials and construction tools appropriately.	Use sheet materials and construction tools appropriately.
Textiles	Cut then join textiles using a running stitch over sewing or glue. Decorate with a range of items (buttons, sequins, bead etc.).	Cut then join textiles using a running stitch, over sewing, back stitch or fastenings. Understand seam allowances, create simple patterns and appropriate decoration techniques.		Cut then join textiles using a running stitch, over sewing, back stitch or fastenings. Understand seam allowances, create simple patterns and appropriate decoration techniques.		Pin and tack fabrics, use patterns and seam allowances and join fabrics to make quality products.
Mechanisms	Know about movement of simple mechanisms such as sliders, levers, wheels and axles.		Know about movement of simple mechanisms such as lever and linkages.		Understand how mechanical systems such as pulleys, cams or gears create movement.	
Vocabulary	**Mechanisms** – slider, lever, pivot, slot, bridge/guide card, masking tape, paper fastener, join pull, push, up, down, straight, curve, forwards, backwards	**Mechanisms** – vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools,	**Structures** – shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity	**Mechanical systems** – mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating	**Structures** – frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent	**Textiles** – computer aided design (CAD), computer aided manufacture (CAM) font, lettering, text, graphics, menu, scale, modify, repeat, copy, flip design brief, design criteria, design

DESIGN AND TECHNOLOGY PROGRESSION OF KNOWLEDGE AND SKILLS

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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 **Food** - 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 design, make, evaluate, user, purpose, ideas, design criteria, product, function	equipment and materials used. **Food** – 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. **Textiles** – names of existing products, joining and finishing techniques, tools, fabrics and components template, pattern pieces, mark out, join, decorate, finish features suitable, quality mock-up, design brief, design criteria, make, evaluate, user, purpose, function	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 **Food** – 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, sensory evaluations	**Electrical Systems** – series circuit, fault, connection, toggle switch push-to-make switch, push-to-break switch, battery, battery holder, light emitting diode (LED), bulb, bulb holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, process user, purpose function, prototype, design criteria, innovative, appealing, design brief. **Food** – name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance,	**Food** – 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 **Mechanical** – systems pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor circuit, switch, circuit diagram annotated drawings, exploded diagrams	decisions, innovative, prototype seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces names of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper, annotate, functionality, **Electrical systems** – series circuit, parallel circuit, names of switches and components, input device, output device, system, monitor, control, program, flowchart function, innovative, design specification, design brief, user, purpose **Food** – 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

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			Textiles – fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces user, purpose, design, model, evaluate planning, design criteria, purpose, user, annotated sketch, sensory evaluations	smell, preference, greasy, moist, cook, fresh, savoury hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet, sensory evaluations user, purpose, function prototype, design criteria, innovative, appealing, design brief	mechanical system, electrical system, input, process, output design decisions, functionality, innovation, authentic, user, purpose, design specification, design brief design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, evaluate	utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble innovation, authentic, user, purpose, evaluate, mock-up, prototype