

Early Years Foundation Stage

- Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Children use what they have learnt about media and materials in original ways, thinking about uses and purposes.
- Children represent their own ideas, thoughts and feelings through design and technology

Key Stages 1 and 2

Developing, Planning and Communicating Ideas.

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Draw on their own experience to help generate ideas • Suggest ideas and explain what they are going to do • Identify a target group for what they intend to design and make • Model their ideas in card and paper • Develop their design ideas applying findings from their earlier research 	<ul style="list-style-type: none"> • Generate ideas by drawing on their own and other people's experiences • Develop their design ideas through discussion, observation, drawing and modelling • Identify a purpose for what they intend to design and make • Identify simple design criteria • Make simple drawings and label parts 	<ul style="list-style-type: none"> • Generate ideas for an item, considering its purpose and the user/s • Identify a purpose and establish criteria for a successful product. • Plan the order of their work before starting • Explore, develop and communicate design proposals by modelling ideas • Make drawings with labels when designing 	<ul style="list-style-type: none"> • Generate ideas, considering the purposes for which they are designing • Make labelled drawings from different views showing specific features • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail • Evaluate products and identify criteria that can be used for their own designs 	<ul style="list-style-type: none"> • Generate ideas through brainstorming and identify a purpose for their product • Draw up a specification for their design • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail • Use results of investigations, information sources, including ICT when developing design ideas 	<ul style="list-style-type: none"> • Communicate their ideas through detailed labelled drawings • Develop a design specification • Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways • Plan the order of their work, choosing appropriate materials, tools and techniques

Working with tools, equipment, materials and components to make quality products (inc food)

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Make their design using appropriate techniques 	<ul style="list-style-type: none"> • Begin to select tools and materials; use vocab' to name and describe them 	<ul style="list-style-type: none"> • Select tools and techniques for making their product • Think about their ideas as they make progress and be willing change things if this helps them improve their work 	<ul style="list-style-type: none"> • Select appropriate tools and techniques for making their product • Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques • Use simple graphical communication techniques 	<ul style="list-style-type: none"> • Select appropriate materials, tools and techniques 	<ul style="list-style-type: none"> • Select appropriate tools, materials, components and techniques • Assemble components make working models • Make modifications as they go along
<ul style="list-style-type: none"> • With help measure, mark out, cut and shape a range of materials 	<ul style="list-style-type: none"> • Measure, cut and score with some accuracy 	<ul style="list-style-type: none"> • Measure, mark out, cut, score and assemble components with more accuracy 		<ul style="list-style-type: none"> • Measure and mark out accurately 	
<ul style="list-style-type: none"> • Use tools <i>eg scissors and a hole punch</i> safely 	<ul style="list-style-type: none"> • Use hand tools safely and appropriately 	<ul style="list-style-type: none"> • Work safely and accurately with a range of simple tools 		<ul style="list-style-type: none"> • Use skills in using different tools and equipment safely and accurately 	<ul style="list-style-type: none"> • Use tools safely and accurately
<ul style="list-style-type: none"> • Assemble, join and combine materials and components together using a variety of temporary methods <i>e.g. glues or masking tape</i> 	<ul style="list-style-type: none"> • Assemble, join and combine materials in order to make a product 		<ul style="list-style-type: none"> • Join and combine materials and components accurately in temporary and permanent ways 		<ul style="list-style-type: none"> • Construct products using permanent joining techniques
	<ul style="list-style-type: none"> • Cut, shape and join fabric to make a simple garment. Use basic sewing techniques 		<ul style="list-style-type: none"> • Measure, tape or pin, cut and join fabric with some accuracy • Sew using a range of different stitches, weave and knit 		<ul style="list-style-type: none"> • Pin, sew and stitch materials together create a product
<ul style="list-style-type: none"> • Select and use appropriate fruit and vegetables, processes and tools • Use basic food handling, hygienic practices and personal hygiene 	<ul style="list-style-type: none"> • Follow safe procedures for food safety and hygiene 	<ul style="list-style-type: none"> • Demonstrate hygienic food preparation and storage 		<ul style="list-style-type: none"> • Weigh and measure accurately (time, dry ingredients, liquids) • Apply the rules for basic food hygiene and other safe practices <i>e.g. hazards relating to the use of ovens</i> 	

<ul style="list-style-type: none"> Use simple finishing techniques to improve the appearance of their product 	<ul style="list-style-type: none"> Choose and use appropriate finishing techniques 	<ul style="list-style-type: none"> Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT 		<ul style="list-style-type: none"> Cut and join with accuracy to ensure a good-quality finish to the product 	<ul style="list-style-type: none"> Achieve a quality product
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Evaluating Processes and Products

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> Evaluate their product by discussing how well it works in relation to the purpose Evaluate their products as they are developed, identifying strengths and possible changes they might make Evaluate their product by asking questions about what they have made and how they have gone about it 	<ul style="list-style-type: none"> Evaluate against their design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them 	<ul style="list-style-type: none"> Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose</i> Disassemble and evaluate familiar products 	<ul style="list-style-type: none"> Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests 	<ul style="list-style-type: none"> Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others 	<ul style="list-style-type: none"> Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved

Vocabulary

Vocabulary: Textiles

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Templates & Joining:</u> 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,</p>		<p><u>2D Shape & 3D products:</u> fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, user, purpose, design, model, evaluate,</p>		<p><u>Combining Different Fabric Shapes:</u> 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, iron</p>	

design criteria, make, evaluate, user, purpose, function		prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces		transfer paper, design criteria, annotate, design decisions, functionality, innovation, authentic, user, purpose, evaluate, mock-up, prototype	
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Vocabulary: Electrical Systems

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			<u>Simple Circuits & Switches:</u> 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, user, purpose, function, prototype, design criteria, innovative, appealing, design brief		<u>More complex switches & circuits:</u> 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

Vocabulary: Mechanisms

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<u>Wheels & Axles:</u> 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	<u>Slider & Levers:</u> 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		<u>Levers & Linkages:</u> 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	<u>Pulleys or Gears:</u> 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	

Vocabulary: Structures

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p><u>Freestanding Structures:</u> 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><u>Shell Structures:</u> 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><u>Frame Structures:</u> frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional</p>

Vocabulary: Food

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Preparing Fruit & Vegetables:</u> 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</p>		<p><u>Healthy & Varied Diet:</u> 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</p>		<p><u>Celebrating Culture & Seasonality:</u> 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</p>	

