

Year Group	Design (developing, planning and communicating ideas)	Making (Technical Knowledge and key vocabulary)			Evaluate (processes and products)	
		Mechanisms	Construction	Textiles	Food and Nutrition	
Reception (ELG)	<p>Begin to think of their own ideas.</p> <p>Choose the resources they need for their chosen activities.</p> <p>Children use what they have learnt in original ways, thinking about uses and purposes.</p> <p>Represent their own ideas, through thoughts, feelings through design and technology.</p> <p>To know the importance of a healthy diet.</p>	<p>Sliders, wheels</p> <p>To make vehicles with moving wheels using simple construction toys.</p>	<p>* Cutting - scissors</p> <p>* Joining - glue, cello-tape, masking tape, split pins, paper clips, hole punch</p> <p>* Woodwork - hand drill, hammer, nails</p> <p>* To make a solid wall using construction - stickle brick, Lego, Mobilo etc</p> <p>*</p> <p>Woodwork - to use pieces of sandpaper and wood, a hammer and pegs.</p>	<p>Describe textiles by the way they feel</p> <p>Join fabrics using glue</p> <p>Use stitches to add pattern to a piece of fabric.</p> <p>(Chunky plastic needles and hessian/ binka)</p>	<p>Sort healthy/ unhealthy foods</p> <p>Peel, chop, mix</p> <p>Bread and jam?</p> <p>Weighing - pouring or spooning ingredients into scales.</p> <p>Using measuring spoons</p> <p>Wash fruit and veg</p> <p>Cutting soft ingredients.</p> <p>Mixing - spoon or hand</p> <p>Tearing and smashing - tearing herbs or lettuce or squashing fruit.</p> <p>Sieving</p> <p>Using a pestle and mortar</p> <p>Rolling, shaping dough</p> <p>Spreading</p>	<p>Talk about how they made their model.</p> <p>Say what they like/dislike about it.</p> <p>Think about how their design could be improved</p> <p>* Look at characteristics of learning too*</p>

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Year 1	<ul style="list-style-type: none"> * Think of their own ideas for design. * Use pictures and words to plan. * Design a product for myself. * Work in a range of contexts - home, school, wider community, story based. 	<ul style="list-style-type: none"> *Explore and use mechanisms - levers, sliders. <p>Moving components - hinges, turn tables, wheels etc?</p>	<ul style="list-style-type: none"> * Begin to build structure, exploring how they can be made stronger. * Joining - as Reception plus treasury tags, split pin * To build following instructions. * To build a complex model using trickier construction toys - knex, Technic Lego * Woodwork - to screw in several screws already started using a screwdriver. Bolts and nuts through wood. 	<p>Begin to assemble, join and combine textiles.</p> <p>Begin to measure, mark out and cut fabric.</p> <p>Sewing - running stitch or glue</p> <p>Make use work is neat and tidy.</p>	<ul style="list-style-type: none"> * Begin to understand all food comes from plants or animals. * Begin to name and sort foods into the five groups on 'The Eat well plate'. * Know how to peel, cut, grate, mix. * Begin to know how to prepare simple dishes safely and hygienically without a heat source. * Sandwich? * Cutting with scissors - snip herbs * Peel oranges or hard boiled eggs. * Setting the table - encourage them to cherish the ritual of family meals. 	<p>Start to evaluate their product by discussing how well it works in relation to the purpose/ design criteria.</p> <p>Explain their likes/dislikes of existing products.</p> <p>Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make.</p>

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Year 2	<p>Start to generate ideas by drawing in their own and other people experiences.</p> <p>Begin to develop their design ideas through discussion, observation, drawing and modelling.</p> <p>Identify a purpose for what they intend to design and make.</p> <p>Make templates and mock ups of ideas in paper, card or using ICT.</p>	<p>Hand tools</p> <p>Start to assemble, join and combine to make a product.</p> <p>*Explore and use mechanisms - wheels and axles</p> <p>Moving components - hinges, turn tables, wheels etc</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>With help, measure, cut and score with some accuracy.</p> <p>* To build following instructions.</p> <p>* To build a complex model using trickier construction toys - knex, Technic Lego</p> <p>Woodwork - to screw in several screws already started using a screwdriver. Boos an nuts through wood.</p>	<p>Demonstrate how to measure, mark out, cut and join fabric to make a simple product.</p> <p>Sewing - running stitch, over sewing or glue.</p> <p>Finishing techniques - buttons, sequins, beds, ribbon etc</p>	<p>* Know that food has to be farmed, grown elsewhere (e.g home) or caught.</p> <p>* Understand how to name and sort 'The Eat well plate'.</p> <p>* Know that everyone should eat 5 portions of fruit and veg every day.</p> <p>* Know how to peel, cut, grate, mix And mould.</p> <p>* To know how to prepare simple dishes safely and hygienically without a heat source.</p> <p>* Wraps?lunchbox?</p> <p>*</p>	<p>Evaluate their work against their design criteria.</p> <p>Explain their likes/dislikes of a range of existing products.</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> <p>Talk with confidence about their ideas, saying what they like and dislike.</p>

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Year 3	<p>With growing confidence, generate ideas for an item, considering its purpose and the user/s</p> <p>Start to order the main stages of making a product. Identify a purpose and establish criteria for a successful product.</p> <p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</p> <p>When planning explain their choice of materials and components, including function and aesthetics.</p> <p>Use annotated sketches, cross sectional drawings and diagrams</p>	<p>Electrical components? electrical systems have an Input, process and output.</p> <p>Electrical circuits</p> <p>Understand how levers and linkages or pneumatic systems create movement.</p> <p>Understand how to program a computer to control their product made out of toys.</p> <p>To make instructions for making a basic mode that moves.</p> <p>To add a mechanical element to a Odell following instructions - Lego WEDO?</p>	<p>Construction materials and kits</p> <p>Know how to make strong, stiff shell structure</p> <p>Woodwork - to use a vice (permanently attached to the workbench) to hold the wood in place</p> <p>To saw under high levels of upper vision.</p> <p>To use large nails (comb to hold nail in place??)</p>	<p>Begin to select appropriate textiles for a purpose.</p> <p>Use sharp scissors to accurately cut textiles.</p> <p>To appliqué fabrics using basic sewing skills.</p> <p>Measure, tape or pin It and join fabric with some accuracy</p> <p>Know that a single fabric shape can be used to make a 3D textiles product.</p> <p>Improve designs as you work.</p>	<ul style="list-style-type: none"> * To begin to know food is grown, reared, and caught in the UK and Europe. * Prepare and cook dishes safely, hygienically and , where appropriate, use of a heat source - toaster and microwaves with supervision. * Pitta pockets? * Kneading and baking? * Measure using grams * Follow a simple recipe * Use a peeler * Making salads? 	<p>Evaluate their product against original design criteria. How well has it met its intended purpose?</p> <p>Begin to disassemble and evaluate familiar products and consider the view of others to improve them.</p> <p>Evaluate the key designs of individuals in design technology</p> <p>Begin to investigate whether the product be recycled or reused.</p>

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Year 4	<p>Start to generate ideas, considering the purposes for which they are designing - link with mathematics and science.</p> <p>Confidently make labelled drawings from different view showing specific features.</p> <p>Suggest alternative methods of making, if the first tempts fail</p> <p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products</p> <p>When planning explain their choice of materials and components, including function and aesthetics.</p> <p>Use annotated sketches, cross sectional drawings and diagrams</p>	<p>Cams and pulleys create movement</p> <p>Programme a computer to monitor change in environment.</p> <p>Understand how levers and linkages or pneumatic systems create movement.</p> <p>Understand how to program a computer to control their product made out of toys.</p> <p>To make instructions for making a basic mode that moves.</p> <p>To add a mechanical element to a Odell following instructions - Lego WEDO?</p>	<p>Join materials and components accurately in temporary and permanent ways</p> <p>Understand how to strengthen or reinforce a 3D framework.</p> <p>Know how to make strong, stiff shell structure</p> <p>Woodwork - to use a vice (permanently attached to the workbench) to hold the wood in place To saw under high levels of upper vision. To use large nails (comb to hold nail in place??)</p>	<p>Sewing -back stitch or fastenings - buttons?</p> <p>Weave</p> <p>Know that a single fabric shape can be used to make a D textiles product</p> <p>Select appropriate textiles for a purpose.</p> <p>Use sharp scissors to accurately cut textiles.</p> <p>To appliqué fabrics using basic sewing skills.</p> <p>Measure, tape or pin It and join fabric with some accuracy</p> <p>Know that a single fabric shape can be used to make a 3D textiles product.</p> <p>Improve designs as you work.</p>	<p>* To begin to know food is grown, reared, and caught in the UK and Europe.</p> <p>* Prepare and cook dishes safely, hygienically and , where appropriate, use of a heat source - toaster and microwaves with supervision.</p> <p>* Kneading and baking?</p> <p>* Measure using grams</p> <p>* Follow simple recipe.</p>	<p>Evaluate their product carrying out appropriate tests.</p> <p>Start to evaluate their work both during an at the end of the assignment.</p> <p>Be able to disassemble and evaluate familiar products and consider the view of others to improve them.</p> <p>Evaluate the key designs of individuals in design technology and how it has helped shape the world.</p> <p>Investigate whether the product be recycled or reused</p>

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Year 5	<p>Start to generate, develop, model and communicate their ideas through discussions, annotated sketches, cross sectional and exploded diagrams, prototype, pattern pieces.</p> <p>Begin to use research (survey, interview, questionnaire, web-based resources) and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>With growing confidence apply a range of finishing techniques - including those from Art.</p> <p>Use results of investigations, information sources, including ICT when developing design ideas.</p> <p>Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.</p>	<p>Cams, pulleys and gears to create movements</p> <p>Understand more complex electrical circuits and components can be used to create functional products.</p> <p>Understand how to program a computer to monitor changes in the environment/ control their products.</p> <p>To add a mechanical element to a model following instructions - KNEX</p> <p>To design their own model which will interact its computer software.</p>	<p>Select and use a variety of construction materials, according to their functional prestige and aesthetic properties.</p> <p>Know how to reinforce/ strengthen a 3D framework.</p> <p>Woodwork - as 3/4 but include refinement decorative combinations, respect for tools and materials. (Link to forest school?)</p>	<p>Good finish</p> <p>Knit</p> <p>Fastenings - permanent and temporary-range including poppers?</p> <p>Measure and mark out more accurately - templates?</p> <p>Know that a 3D textiles product can be made from a combination of fabric shapes.</p> <p>Combine materials to improve design for strength or visual appeal.</p> <p>Sewing - cross stitch and begin to sew using a machine?</p> <p>Describe the qualities of materials and say why it is the most suitable.</p>	<ul style="list-style-type: none"> * To begin to know food is grown, reared, and caught in the wider world. * seasons may affect the food available. * Chopping, slicing, spreading, kneading and baking. * Weigh and measure accurately - time, dry, liquids * To begin to understand different food/drink contain different substances needed for health - fibre, nutrients, water. * Prepare and cook predominantly savoury dishes safely, hygienically and , where appropriate, use of a heat source - use of hobs with appropriate supervision. * Seasonal food? * Know that a recipe can be adapted by adding or substituting one or more ingredients. * Understand the need for correct storage * Measure accurately * Work out ratios in recipes. * Plan and prepare simple meal. * Whisk - balloon whisk or hand held mixer * Opening cans * Design appealing packaging 	<p>Start to evaluate a product against the original design specification an by carrying out tests.</p> <p>Evaluate both during and at the end.</p> <p>Begin to evaluate their work personally and seek evaluation from others.</p> <p>Evaluate the key designs of individuals in design and technology and how it has helped shape the world.</p> <p>Begin to investigate how much products cost to make, how innovative products are and how sustainable the materials in products are.</p>

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Year 6	<p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</p> <p>Demonstrate modifications as they go along.</p> <p>Generate, develop, model and communicate their ideas through discussions, annotated sketches, cross sectional and exploded diagrams, prototype, pattern pieces.</p> <p>Use research (survey, interview, questionnaire, web-based resources) and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>With growing confidence apply a range of finishing techniques - including those from Art.</p> <p>Use results of investigations, information sources, including ICT when developing design ideas.</p> <p>Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.</p>	<p>Cams, pulleys and gears to create movements</p> <p>Understand more complex electrical circuits and components can be used to create functional products.</p> <p>Understand how to program a computer to monitor changes in the environment/ control their products</p> <p>To add a mechanical element to a model following instructions - KNEX</p> <p>To design their own model which will interact its computer software.</p>	<p>Use a range of tools and equipment precisely</p> <p>Select and use a variety of construction materials, according to their functional prestige and aesthetic properties.</p> <p>Know how to reinforce/ strengthen a 3D framework.</p>	<p>Sew - range of stitches, plus cross stitch and begin to use a sewing machine?</p> <p>Fastenings & knots</p> <p>Pin and tack fabrics, seam allowances to make quality products</p> <p>Measure and mark out more accurately - templates?</p> <p>Know that a 3D textiles product can be made from a combination of fabric shapes</p> <p>Combine materials to improve design for strength or visual appeal.</p> <p>Describe the qualities of materials and say why it is the most suitable</p>	<ul style="list-style-type: none"> * To begin to know food is grown, reared, and caught in the UK and Europe and the wider world. * Understand that seasons may affect the food available. * Chopping, slicing, spreading, kneading and baking. * To begin to understand different food/drink contain different substances needed for health - fibre, nutrients, water. * Prepare and cook predominantly savoury dishes safely, hygienically and a heat source - use of hobs with developing independence. * Cultural food? * Know that a recipe can be adapted by adding or substituting one or more ingredients. * Understand the need for correct storage * Measure accurately * Work out ratios in recipes * Plan and prepare simple meal. * Whisk - balloon whisk or hand held mixer * Opening cans * Design appealing packaging. 	<p>Evaluate their products, identifying strength and areas for development for both the appearance and function, and carrying out appropriate tests.</p> <p>Record their evaluations using drawing with labels both during and at the end of their assignment.</p> <p>Evaluate their work personally and seek evaluation from others.</p> <p>Evaluate the key designs of individuals in design and technology and how it has helped shape the world.</p> <p>Begin to investigate how much products cost to make, how innovative products are and how sustainable the materials in products are.</p>

