

SKILLS PROGRESSION DT

Concept		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Master practical skills	Food	Eats a healthy range of foodstuffs and understands need for variety in food. (40-60+)	Understand where food comes from.	Group foods into the five groups in The Eatwell Plate.	Cut materials accurately and safely by selecting appropriate tools.	Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).	Assemble or cook ingredients, controlling the temperature of the oven or hob if cooking.	Combine ingredients appropriately e.g. beating or rubbing.
		Shows some understanding that good practices with regard to exercise, eating, sleeping and hygiene can contribute to good health. (40-60+)	Group familiar food products e.g. fruit and vegetables. Cut ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source.	Cut, grate or peel ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source. Measure or weigh using cups or electronic scales.	Know that a healthy diet is made up from a variety of different food and drink, as depicted in The Eatwell Plate. Measure and weigh ingredients appropriately. Follow a recipe.	Measure ingredients using scales. Prepare ingredients hygienically and using the appropriate utensils by following a recipe.	Measure accurately using different equipment. Create recipes, including ingredients, methods, cooking times and temperatures. Understand the importance of correct storage and handling of ingredients.	Measure ingredients to the nearest gram and millilitre and calculate ratios of ingredients to scale up or down from a recipe. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. Create and refine recipes, including ingredients, methods, cooking times and temperatures.

<p>Material</p>	<p>Evaluate the design of products (30-50m)</p> <p>Uses simple tools to effect changes to materials. (40-60+)</p> <p>Manipulates materials to achieve a planned effect. (40-60+)</p> <p>Handles tools, objects, construction and malleable materials safely and with increasing control. (40-60+)</p> <p>Realises tools can be used for a purpose.(30-50m)</p> <p>Uses simple tools and techniques competently and appropriately.(40-60+)</p> <p>Selects tools and techniques needed to shape, assemble and join materials they are using.(40-60+)</p>	<p>Cut materials safely with support.</p> <p>Measure and mark out design with support</p> <p>Can use tearing, cutting, folding and curling in design</p> <p>Shows a simple understanding of what it means to strengthen a design</p> <p>Demonstrate a range of joining techniques such as gluing or taping.</p>	<p>Demonstrate a range of joining techniques such as gluing, taping or creating hinges.</p> <p>Cut materials safely using tools provided.</p> <p>Demonstrate a range of cutting and shaping techniques such as tearing, cutting, folding and curling.</p>	<p>Select tools and equipment suitable for the task</p> <p>Explain their choices and select suitable materials and components for the task</p> <p>Order the main stage of making</p> <p>Follow procedures for safety</p> <p>Measures, marks out, cuts and shapes materials with accuracy</p> <p>Applies some finishing techniques</p>	<p>Measure and mark out to the nearest mm.</p> <p>Cut slots and internal shapes.</p> <p>Create nets.</p>	<p>Can explain why materials and tools have been chosen</p> <p>Confidently assembles, joins and combines a range of materials using different techniques including, temporary, fixed or moving joints.</p> <p>Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).</p>	<p>Cut materials with precision and refine the finish with appropriate tools</p> <p>Show an understanding of the qualities of materials to choose appropriate tools to cut and shape</p> <p>Confidently assembles, joins and combines a range of materials using different techniques including, temporary, fixed or moving joints.</p>
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	Textiles	Beginning to be interested in and describe the texture of things. (30-50m)	<p>Colour fabrics using a range of techniques e.g. fabric paints, printing, painting</p> <p>Cut out shapes which have been created by drawing round a template onto the fabric</p>	<p>Join fabrics by using running stitch, glue, staples ,over sewing, tape</p> <p>Decorate fabrics with buttons, beads, sequins, braids, ribbons</p>	<p>Create a simple pattern</p> <p>Understand the need for patterns</p>	<p>Understand the need for a seam allowance.</p> <p>Join textiles with appropriate stitching.</p> <p>Select the most appropriate techniques to decorate textiles.</p> <p>Prototype a product using J cloths</p> <p>Use appropriate decoration techniques e.g. appliqué(glued or simple stitches)</p>	<p>Understand pattern layout</p> <p>Decorate textiles appropriately often before joining components</p> <p>Combine fabrics to create more useful properties</p>	<p>Create 3D products using pattern pieces and seam allowance</p> <p>Pin and tack fabric pieces together</p> <p>Join fabrics using over se wing, back stitch, blanket stitch or machine stitching</p> <p>Make quality products</p>
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<p style="text-align: center;">Construction</p>	<p>Uses various construction materials. (30-50m)</p> <p>Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.(30-50.)</p> <p>Joins construction pieces together to build and balance. (30-50m)</p> <p>Constructs with a purpose in mind, using a variety of resources. (40-60+)</p>	<p>Use materials with support to practise drilling, screwing, gluing and nailing materials</p> <p>Begin to build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Use materials with support to practise drilling, screwing, gluing and nailing materials</p> <p>Use a range of materials to create models with wheels and axels e.g. glue, tape, dowel and cotton reels.</p> <p>Attach wheels to a chassis using an axle.</p> <p>Join appropriately for different materials and situations e.g. glue and tape.</p> <p>Mark out materials to be cut using a template.</p>	<p>Deconstruct and assemble the net of basic 3D shapes.</p> <p>Strengthen 2D frames by adding diagonal bracing struts.</p> <p>Make a rectangular frame from strip wood.</p> <p>Use materials to make simple joints, glue, tape and paper clips.</p>	<p>Create a shell or frame structure; strengthen frames with diagonal struts.</p> <p>Prototype frame and shell structures.</p> <p>Measure and mark square selection, strip and dowel accordingly to 1cm.</p> <p>Use a glue gun with close one to one supervision.</p>	<p>Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).</p> <p>Join materials using appropriate methods.</p> <p>Build frameworks using a range of materials to support mechanisms. E.g. wood, corrugated card and plastic.</p>	<p>Develop a range of practical skills to create products</p> <p>Use a hand drill to drill tight and loose fit holes.</p> <p>Cut strip wood, dowel and square section wood accurately to 1cm.</p> <p>Select the most appropriate method to strength 3D structures and frames.</p> <p>Apply a range of finishing techniques, including those from art and design, to a broad range of materials including textiles, metals, polymers and woods.</p>
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	Mechanisms		<p>Create a product with a levers, wheel or winding mechanism.</p> <p>Explore and talk about books containing flaps and moving pictures.</p> <p>Construct a simple slider with support. Construct a simple lever with support</p>	<p>Create a product with a levers, wheel or winding mechanism.</p> <p>Deconstruct a simple slider and describe how it works.</p> <p>Construct a simple slider independently.</p> <p>Make a lever by joining card strips with paper fasteners.</p>	<p>Deconstruct a range of sliders and describe how they work.</p> <p>Construct increasing complex sliders.</p> <p>Join levers to make linkages to create moving parts.</p> <p>Construct a simple pneumatic system with one moving part.</p>	<p>Deconstruct and reconstruct a range of sliders and levers.</p> <p>Vary the position of the pivot point to lift a load using a lever.</p> <p>Construct a pneumatic with two moving parts.</p> <p>Identify the cam within a simple mechanism and explain how movement is changed.</p>	<p>Create a range of sliders and levers to produce horizontal and vertical movement.</p> <p>Combine sliders and levers to produce a range of movements.</p> <p>Generate questions to investigate and compare the efficiency of pneumatic systems.</p> <p>Describe the way in which a cam changes rotary motion into linear motion.</p>	<p>Use a range of technical vocabulary to describe the properties and functions of mechanisms.</p> <p>Choose and use a range of sliders and levers accurately to create a range of effects.</p> <p>Analyse and evaluate the efficiency of pneumatic systems.</p> <p>Discuss the relationship between a cam and follower, an off-centre cam, a peg cam, a pear-shaped cam and a snail cam.</p>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">To design, make, evaluate and improvements</p>	<p>Selects appropriate resources and adapts work where necessary. (40-60+)</p>	<p>Shows an understanding that a product needs to have a purpose and a user.</p> <p>Make a product and say what improvements they would make.</p> <p>With support suggest improvements to existing designs.</p> <p>Design a product for a given purpose.</p> <p>Use drawings to record ideas as they are developed and talk about them.</p> <p>Select and name the tools needed to work the materials.</p>	<p>Design products that have a clear purpose and an intended user.</p> <p>Make products, refining the design as work progresses.</p> <p>Use software to design.</p> <p>Use pictures and words to convey what they want to design and make.</p> <p>Add notes to drawings to help explanations.</p> <p>Design a product from a design criteria.</p>	<p>Identify strengths and areas for development in their design ideas.</p> <p>Consider the views of others in the design process.</p> <p>Refer to the design criteria as they make.</p> <p>Use their design criteria to evaluate their end products.</p> <p>Draw/sketch products to help analyse and understand how products are made.</p> <p>Think ahead about the order of their work and decide upon tools and materials.</p> <p>Design innovative, functional, appealing products that are fit for purpose that are aimed at particular individuals or groups.</p>	<p>Describe the purpose of their product</p> <p>Indicate design features of their products that will appeal to the intended user.</p> <p>Gather information on the requirements of suggested users</p> <p>Develop own design criteria.</p> <p>Share and clarify ideas through discussion.</p> <p>Use annotated sketches and diagrams to communicate ideas.</p> <p>Model ideas using prototypes and pattern pieces.</p> <p>Select suitable tools, materials and equipment.</p> <p>Measure and cut accurately.</p> <p>Identify strengths and areas for development.</p> <p>Investigate and analyse against the design criteria.</p> <p>Use design criteria to evaluate and improve products.</p>	<p>Develop a design specification to communicate ideas.</p> <p>Share and discuss ideas confidently using annotated sketches, diagrams and prototypes.</p> <p>Can explain why materials and tools have been chosen.</p> <p>Confidently assembles, joins and combines a range of materials using different techniques.</p> <p>Accurately measures and cuts materials.</p> <p>Considers the views of others when evaluating products.</p> <p>Critically evaluate product against original design</p> <p>Make prototypes</p> <p>When designing produce cross sectional and exploded diagrams</p>	<p>Design with the user in mind, motivated by the service a product will offer</p> <p>Make products through stages of prototypes.</p> <p>Ensure products have a high quality finish, using art skills where appropriate.</p> <p>Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p> <p>Record ideas using annotated diagrams</p> <p>Use models, kits and drawings to help formulate design ideas.</p> <p>Design innovative, functional, appealing produces that are fit for purpose that are aimed at particular individuals or groups.</p>
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<p>To take inspiration from design throughout history</p>	<p>Shows interest in different occupations and ways of life.(30-50m)</p>	<p>Look at examples of designs and share likes or dislikes of a design.</p> <p>Show some understanding of how other products have been created.</p>	<p>Explore objects and designs to identify likes and dislikes of the designs.</p> <p>Suggest improvements to existing designs.</p> <p>Explore how products have been created.</p>	<p>Analyse work of others—how well designs put together , methods used.</p> <p>Recognise some successful inventors, designers and engineers</p>	<p>Identify some of the great designers in all of the areas of study to generate ideas for designs.</p> <p>Improve upon existing designs, giving reasons for choices.</p>	<p>Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.</p> <p>Create innovative designs that improve upon existing products.</p>	<p>Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.</p> <p>Create innovative designs that improve upon existing products.</p> <p>Evaluate the design of products.</p>
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