

Design and Technology Progression of Skills: EYFS, KS1, LKS2 and UKS2

ELG:		EYFS		KS1: I can...	LKS2: I can...	UKS2: I can...	
Physical Development	Moving and Handling	<p>To use simple tools to effect changes to materials.</p> <p>To handle tools, objects, construction and malleable materials safely and with increasing control.</p> <p>To handle equipment and tools effectively, including pencils for writing.</p>	Practical Skills	<p>cut, peel or grate ingredients safely and hygienically.</p> <p>measure or weigh using measuring cups or electronic scales.</p> <p>assemble or cook healthy ingredients.</p> <p>understand where food comes from.</p>	<p>prepare ingredients hygienically using appropriate utensils.</p> <p>measure ingredients to the nearest gram accurately.</p> <p>follow a recipe.</p> <p>assemble or cook healthy ingredients (controlling the temperature of the oven or hob, if cooking).</p>	<p>understand the importance of correct storage and handling of ingredients (using knowledge of microorganisms).</p> <p>measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p> <p>demonstrate a range of baking and cooking techniques.</p> <p>create and refine recipes, including healthy seasonal ingredients, methods, cooking times and temperatures.</p> <p>understand how a variety of ingredients are grown, reared, caught and processed.</p> <p>understand and apply principles of a healthy and varied diet.</p>	
	Health and Self Care	<p>To show understanding of the need for safety when tackling new challenges and consider and manage some risks.</p> <p>To show understanding of how to transport and store equipment safely.</p> <p>To practise some appropriate safety measures without direct supervision.</p>		<p>cut materials safely using tools provided.</p> <p>measure and mark out to the nearest centimetre.</p> <p>demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</p>	<p>cut materials accurately and safely by selecting appropriate tools.</p> <p>measure and mark out to the nearest millimetre.</p> <p>apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</p> <p>select appropriate joining techniques/ resources.</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>show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).</p>	
Expressive Arts and Design	Exploring and Using Materials	<p>To explore what happens when they mix colours.</p> <p>To experiment to create different textures.</p> <p>To understand that different media can be combined to create new effects.</p> <p>To manipulate materials to achieve a planned effect.</p> <p>To construct with a purpose in mind, using a variety of resources.</p> <p>To use simple tools and techniques competently and appropriately.</p> <p>To select appropriate resources and adapt work where necessary.</p> <p>To select tools and techniques needed to shape, assemble and join materials they are using</p> <p>To safely use and explore a variety of materials, tools and techniques, experimenting with</p>		Textiles	<p>shape textiles using templates.</p> <p>join textiles using running stitch.</p> <p>colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</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>create objects (such as a cushion) that employ a seam allowance.</p> <p>join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).</p> <p>use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).</p>
				Electronics	<p>diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</p>	<p>create series and parallel circuits</p>	<p>create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips.)</p>
				Computing	<p>model designs using software (such as 2simple)</p>	<p>control and monitor models using software designed for this purpose.</p>	<p>write code to control and monitor models or products.</p>
				Construction	<p>use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.</p>	<p>choose suitable techniques to construct products or to repair items.</p> <p>strengthen materials using suitable techniques.</p>	<p>develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).</p>

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	colour, design, texture, form and function				
Being Imaginative	<p>To create simple representations of events, people and objects. To choose particular colours to use for a purpose</p> <p>To use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories</p>	Mechanics	create products using levers, wheels and winding mechanisms.	use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears.)	<p>convert rotary motion to linear using cams.</p> <p>use innovative combinations of electronics (or computing) and mechanics in product designs</p>
		Designing, Making, Evaluating and Improving	<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>begin to evaluate their ideas and products against design criteria.</p>	<p>design with purpose by identifying opportunities to design.</p> <p>make products by working efficiently (such as by carefully selecting materials).</p> <p>refine work and techniques as work progresses, continually evaluating the product design.</p> <p>use software to design and represent product designs.</p>	<p>design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p> <p>make products through stages of prototypes, making continual refinements.</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>
		Taking Inspiration	<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>identify some of the great designers (such as Brunel, Mackintosh, Philip Treacy, Marcel Breuer) in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.</p> <p>improve upon existing designs, giving reasons for choices.</p> <p>disassemble products to understand how they work.</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 so as to suggest improvements to the user experience.</p>