

Design and Technology Skills Progression

Design							
KS1 Skills	Year 1	Year 2	KS2 Skills	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	Draw on their own experience to help generate ideas	Generate ideas by drawing on their own and other people's experiences	<ul style="list-style-type: none"> use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 	Generate ideas for an item, considering its purpose and the user/s	Generate ideas, considering the purposes for which they are designing	Generate ideas through brainstorming and identify a purpose for their product	Communicate their ideas through detailed labelled drawings
	Suggest ideas and explain what they are going to do	Develop their design ideas through discussion, observation, drawing and modelling		Identify a purpose and establish criteria for a successful product.	Make labelled drawings from different views showing specific features	Draw up a specification for their design	Develop a detailed design specification based on research carried out
	Identify a target group for what they intend to design and make	Identify a purpose for what they intend to design and make		Plan the order of their work before starting	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	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	Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways
	Model their ideas in card and paper	Identify simple design criteria		Explore, develop and communicate design proposals by modelling ideas (and using prototypes)	Evaluate products and identify criteria that can be used for their own designs	Use results of investigations, information sources, including ICT when	Plan the order of their work, choosing appropriate

						developing design ideas	materials, tools and techniques
	Develop their design ideas applying findings from their earlier research	Make simple drawings and label parts		Make drawings with labels when designing	Use prototypes and pattern pieces to model ideas.	Produce detailed designs and plans using prototypes, commentary and diagrams that include accurate measurements	Make informed decisions based on time, cost and resource constraints

Make

<u>KS1 Skills</u>	Year 1	Year 2	<u>KS2 Skills</u>	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics 	Make their design using appropriate techniques	Begin to select tools and materials; use vocab to name and describe them	<ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities 	Select tools and techniques for making their product	Select appropriate tools and techniques for making their product	Select appropriate materials, tools and techniques	Select appropriate tools, materials, components and techniques
	With help, measure, mark out, cut and shape a range of materials	Measure, cut and score with some accuracy		Measure, mark out, cut, score and assemble components with more accuracy – make and use gluing tabs	Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques	Measure and mark out accurately	Assemble components make working models
	Use tools - scissors and a hole punch - safely	Use tools - a hole punch and stapler - safely and appropriately		Work safely and accurately with a range of simple tools	Join and combine materials and components accurately in temporary and permanent ways – use paper fasteners for card linkages	Use skills in using different tools and equipment safely and accurately	Use tools safely and accurately

	Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape	Assemble, join (edge to edge using glue) and combine materials in order to make a product		Think about their ideas as they make progress and be willing change things if this helps them improve their work	Sew using a range of different stitches, weave and knit	Weigh and measure accurately (time, dry ingredients, liquids)	Construct products using the most effective temporary or permanent joining techniques
	Select and use appropriate fruit and vegetables, processes and tools	Cut, shape and join fabric to make a simple garment. Use basic sewing techniques		Measure, tape or pin, cut and join fabric with some accuracy	Measure, tape or pin, cut and join fabric with increasing accuracy	Cut and join with accuracy to ensure a good-quality finish to the product, including using finishing techniques from art and design sessions.	Pin, sew and stitch materials together create a product
	Use basic food handling, hygienic practices and personal hygiene	Follow safe procedures for food safety and hygiene		Demonstrate hygienic food preparation and storage	Use simple graphical communication techniques	Apply the rules for basic food hygiene and other safe practices <i>e.g. hazards relating to the use of ovens</i>	
	Use simple finishing techniques to improve the appearance of their product e.g. paint, PVA glue	Choose and use appropriate finishing techniques		Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT			Achieve a quality product, making modifications as they go

Evaluate							
KS1 Skills	Year 1	Year 2	KS2 Skills	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria 	Evaluate their product by discussing how well it works in relation to the purpose	Evaluate against their design criteria	<ul style="list-style-type: none"> • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world 	Evaluate their product against original design criteria e.g. how well it meets its intended purpose	Evaluate their work both during and at the end of the assignment	Evaluate a product against the original design specification	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests
	Evaluate their products as they are developed, identifying strengths and possible changes they might make	Evaluate their products as they are developed, identifying strengths and possible changes they might make		Disassemble and evaluate familiar products	Evaluate their products carrying out appropriate tests	Evaluate it personally and seek evaluation from others	Record their evaluations using drawings with labels
	Evaluate their product by asking questions about what they have made and how they have gone about it	Talk about their ideas, saying what they like and dislike about them		Investigate and analyse how well products have been designed/made and why materials were used.	Investigate and analyse how well products have been designed and made, why materials were used and how well they achieve user needs.	Consider cost, sustainability and the impact of a product	Evaluate against their original criteria and suggest ways that their product could be improved
							Investigate and analyse product costs, how innovative they are, sustainability and the impact beyond their intended purpose