

DT Skills Progression.

Year	Key Skills				
N	<p>Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.</p>				
R	<p>Explore, use and refine a variety of materials to express thoughts and feelings. Use a wide range of materials and textures to independently join and create.</p>				
1	<p>Designing Work confidently within a range of contexts such as imaginary, story based, home, school gardens, playgrounds, local community, industry and the wider environment describe what their products are for Say how their products will work Say how they will make their products suitable for their intended users Use simple design criteria to help develop their ideas develop and communicate ideas by talking and drawing. use information and communication technology, where appropriate, to develop and communicate their ideas follow procedures for safety and hygiene</p>	<p>Making Select from a range of materials and components according to their characteristics use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components measure, mark out, cut and shape materials and components assemble, join and combine materials and components</p>	<p>Evaluating make simple judgements about their products and ideas against design criteria Suggest how their products could be improved. Where products might be used What materials products are made from. talk about their design ideas and what they are making what products are for how products work</p>	<p>Technical knowledge How freestanding structures can be made stronger, stiffer and more stable the correct technical vocabulary for the projects they are undertaking about the simple working characteristics of materials and components about the movement of simple mechanisms such as levers, sliders, wheels and axles that food ingredients should be combined according to their sensory characteristics</p>	<p>Cooking and Nutrition Food preparation how to name and sort foods into the five groups in the eat well plate</p>

2	<p>state what products they are designing and making</p> <p>say whether their products are for themselves or other users</p> <p>Use simple design criteria: state what their products are, who and what they are for and how they will work.</p> <p>Generate ideas using their own experiences and exciting products; use talk, drawing templates, mock ups and where appropriate, computers.</p>	<p>plan by suggesting what to do next</p> <p>use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components</p> <p>measure, mark out, cut and shape materials and components</p> <p>assemble, join and combine materials and components</p> <p>use finishing techniques, including those from art and design.</p> <p>Plan by suggesting what to do next: select from and range of tools.</p>	<p>make simple judgements about their products and ideas against design criteria</p> <p>suggest how their products could be improved.</p> <p>talk about their design ideas and what they are making</p> <p>suggest how their products could be improved</p> <p>what products are who products are for</p> <p>what products are for how products work</p> <p>how products are used where products might be used</p> <p>what materials products are made from</p> <p>what they like and dislike about products</p>	<p>How to prepare simple dishes safely and hygienically, without using a heat source</p> <p>How to use techniques such as cutting, peeling and grating</p>	<p>how to prepare simple dishes safely and hygienically, without using a heat source</p> <p>how to use techniques such as cutting, peeling and grating</p>
3	<p>Gather information about the needs and wants of particular individuals and groups</p> <p>indicate the design features of their products that will appeal to intended users</p> <p>explain how particular parts of their products work.</p> <p>make design decisions that take account of the availability of resources</p>	<p>select tools and equipment suitable for the task</p> <p>select materials and components suitable for the task</p> <p>assemble, join and combine materials and components with some accuracy</p>	<p>use their design criteria to evaluate their completed products</p> <p>identify the strengths and areas for development in their ideas and products</p>	<p>How to make strong, stiff shell structures,</p> <p>That a single fabric shape can be used to make a 3D textiles product</p>	<p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>

	<p>develop their own design criteria and use these to inform their idea</p> <p>generate realistic ideas, focusing on the needs of the user</p> <p>work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment</p> <p>indicate the design features of their products that will appeal to intended users</p> <p>explain how particular parts of their products work</p>	<p>use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components</p>			
4	<p>generate realistic ideas, focusing on the needs of the user</p> <p>share and clarify ideas through discussion</p> <p>Develop their own design criteria and use these to inform their idea</p> <p>Make design decisions that take account of the availability of resources.</p> <p>describe the purpose of their products</p>	<p>order the main stages of making</p> <p>measure, mark out, cut and shape materials and components with some accuracy</p> <p>assemble, join and combine materials and components with some accuracy</p> <p>select materials and components suitable for the task</p> <p>explain their choice of materials and components according to functional properties and aesthetic qualities</p>	<p>refer to their design criteria as they design and make</p> <p>who designed and made the products</p> <p>where products were designed and made</p> <p>when products were designed and made</p> <p>how well products have been designed</p> <p>how well products have been made</p> <p>why materials have been chosen</p> <p>refer to their design criteria as they design and make</p> <p>use their design criteria to evaluate their completed products</p> <p>consider the views of others, including intended</p>	<p>How simple electrical circuits and components can be used to create functional products</p> <p>How to use learning from mathematics to help design and make products that work.</p> <p>That a single fabric shape can be used to make a 3D textiles product</p>	<p>How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>

			users, to improve their work		
5	<p>carry out research, using surveys, interviews, questionnaires and web-based resources</p> <p>explain how particular parts of their products work</p> <p>make design decisions, taking account of constraints such as time, resources and cost</p> <p>describe the purpose of their products</p> <p>indicate the design features of their products that will appeal to intended users</p> <p>explain how particular parts of their products work</p>	<p>formulate step-by-step plans as a guide to making</p> <p>explain their choice of tools and equipment in relation to the skills and techniques they will be using</p> <p>select materials and components suitable for the task</p> <p>accurately measure, mark out, cut and shape materials and components</p> <p>demonstrate resourcefulness when tackling practical problem</p> <p>describe the purpose of their products</p> <p>indicate the design features of their products that will appeal to intended users</p> <p>explain how particular parts of their products work</p> <p>formulate step-by-step plans as a guide to making</p> <p>accurately assemble, join and combine materials and components</p> <p>accurately apply a range of finishing techniques, including those from art and design</p> <p>use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical</p>	<p>evaluate their ideas and products against their original design specification</p> <p>what methods of construction have been used</p> <p>how well products work</p> <p>how well products achieve their purposes</p> <p>how well products meet user needs and wants</p> <p>Follow procedures for safety and hygiene</p>	<p>How to reinforce and strengthen a 3D framework</p> <p>How to use learning from science to help design and make products that work</p> <p>How to program a computer to monitor changes in the environment and control their products</p> <p>How to use learning from mathematics to help design and make products that work</p>	N/A

		components and electrical components			
6	<p>identify the needs, wants, preferences and values of particular individuals and groups</p> <p>develop a simple design specification to guide their thinking</p> <p>indicate the design features of their products that will appeal to intended users</p> <p>make design decisions, taking account of constraints such as time, resources and cost</p> <p>model their ideas using prototypes and pattern pieces</p> <p>carry out research, using surveys, interviews, questionnaires and web-based resources</p> <p>explain how particular parts of their products work</p> <p>generate innovative ideas, drawing on research</p>	<p>follow procedures for safety and hygiene</p> <p>formulate step-by-step plans as a guide to making</p> <p>select tools and equipment suitable for the task</p> <p>explain their choice of tools and equipment in relation to the skills and techniques they will be using</p> <p>accurately assemble, join and combine materials and components</p> <p>accurately apply a range of finishing techniques, including those from art and design</p> <p>use techniques that involve a number of steps</p> <p>demonstrate resourcefulness when tackling practical problem</p> <p>produce appropriate lists of tools, equipment and materials that they need</p> <p>PMA 8 - explain their choice of tools and equipment in relation to the skills and techniques they will be using</p> <p>select materials and components suitable for the task</p> <p>explain their choice of materials and components according to functional properties and aesthetic qualities</p>	<p>evaluate their ideas and products against their original design specification</p> <p>what impact products have beyond their intended purpose.</p> <p>evaluate their ideas and products against their original design specification</p> <p>Identify the strengths and areas for development in their ideas and products</p>	<p>How mechanical systems such as cams or pulleys or gears create movement</p> <p>How to use learning from science to help design and make products that work</p> <p>How to use learning from mathematics to help design and make products that work</p> <p>That materials can be combined and mixed to create more useful characteristics</p>	<p>How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>

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7 Skills	Engineering	Textiles	Food
	Use tools to mark accurately. Reflecting on accuracy and making changes.	Attach a button to a piece of cloth	<p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. Core cooking skills - rubbing in, peeling, coring, knife skills, baking, good food hygiene, safe oven use.</p> <p>Independence</p> <p>Resilience</p> <p>Know skills involved in making apple crumble – including rubbing in, peeling, coring, knife skills, baking, good food hygiene, safe oven use.</p> <p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p> <p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. (peeling, coring, knife skills, baking, good food hygiene, safe oven use) Independence</p> <p>Resilience</p>
	Selecting and using a Tenon saw and sandpaper to apply shape and finish to a material. Reflecting on accuracy and making changes.	Attaching fabrics together. Firm grasp of equipment names and correct usage	
	Safe use of power drilling machinery	Sketching and annotation – response to design problems	
	Using rivets to attach materials. Accuracy in making sure holes align for rivets.	Compare ideas to specification -model final idea in fabric by making a model in fabric	
	Selecting and using tools appropriately and independently.	Making of the basic apron shape. Sewing edges and attaching straps	
	Using progressively finer abrasives to achieve a finish. Applying a finishing coating only once preparation has been completed to an acceptable standard	Student to apply individual designs to aprons using buttons and applique to produce finished prototype for brief.	
	Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups.	Evaluation skills	
	Analyse the work of past and present professionals and		

	<p>others to develop and broaden their understanding.</p>		<p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. (peeling, coring, knife skills, baking, good food hygiene, safe oven use)</p> <p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p>
	<p>Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.</p>		<p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. (rubbing in, baking, good food hygiene, safe oven use) Independence</p> <p>Resilience</p>
			<p>Know skills involved in making apple crumble – including rubbing in, baking, good food hygiene, safe oven use)</p> <p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p>
			<p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. (kneading,</p>

			<p>baking, good food hygiene, safe oven use) Independence</p> <p>Resilience</p> <p>Sensory skills</p>
			<p>Know skills involved in making apple crumble – including (kneading, baking, good food hygiene, safe oven use)</p> <p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p> <p>Sensory skills</p>
			<p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. (rubbing in, knife skills, baking, good food hygiene, safe oven use)</p> <p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p>
			<p>Food Hygiene knowledge – safely produce a dish and handle ingredients avoid food poisoning and cross contamination. (rubbing in, knife skills, baking, good food hygiene, safe oven use)</p>

			<p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p>
			<p>Key elements in a time plan</p> <p>How to identify and control safety and quality</p> <p>Time management</p> <p>Identify features of a Design brief</p> <p>Research skills</p>
			<p>Independence – to follow recipe and complete steps to make their dish with little or no support</p> <p>Resilience – to overcome difficulties and setbacks in practical work</p> <p>Respect – of equipment and room</p> <p>Aspiration – students should choose dishes which challenge them and are aspirational but achievable in terms of skill levels.</p> <p>Cleaning area and managing time</p> <p>Independence</p> <p>Resilience</p>

