



**Progression of Skills
In Design Technology Key Stage 3**



	Year 3	Year 4	Year 5	Year 6	Key Stage 3
Developing, planning and communicating ideas.	<ul style="list-style-type: none"> Generate ideas for an item, considering its purpose and the user/s Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting Explore, develop and communicate design proposals by modelling ideas Make drawings with labels when designing 	<ul style="list-style-type: none"> Generate ideas, considering the purposes for which they are designing Make labelled drawings from different views showing specific features 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 Evaluate products and identify criteria that can be used for their own designs 	<ul style="list-style-type: none"> Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design 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 Use results of investigations, information sources, including ICT when developing design ideas 	<ul style="list-style-type: none"> Communicate their ideas through detailed labelled drawings Develop a design specification Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Plan the order of their work, choosing appropriate materials, tools and techniques 	<ul style="list-style-type: none"> identify and solve their own design problems and understand how to reformulate problems given to them develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools understand and use the properties of materials and the performance of structural elements to achieve functioning solutions understand how more advanced mechanical systems used in their products enable changes in movement and force understand and apply the principles of nutrition and health understand the source, seasonality and characteristics of a broad range of ingredients.
Working with tools, equipment, materials and components to make quality products (incfood)	<ul style="list-style-type: none"> Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy Work safely and accurately with a range of simple tools Think about their ideas as they make progress and be willing change things if this helps them improve their work Measure, tape or pin, cut and join fabric with some accuracy Demonstrate hygienic food preparation and storage Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT 	<ul style="list-style-type: none"> Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit Measure, tape or pin, cut and join fabric with some accuracy Use simple graphical communication techniques 	<ul style="list-style-type: none"> Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately Weigh and measure accurately (time, dry ingredients, liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens Cut and join with accuracy to ensure a good-quality finish to the product 	<ul style="list-style-type: none"> Select appropriate tools, materials, components and techniques Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques Make modifications as they go along Pin, sew and stitch materials together create a product Achieve a quality product 	<ul style="list-style-type: none"> select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture <ul style="list-style-type: none"> select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties <ul style="list-style-type: none"> cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes]

<p>Evaluating processes and products</p>	<ul style="list-style-type: none"> • Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose</i> • Disassemble and evaluate familiar products 	<ul style="list-style-type: none"> • Evaluate their work both during and at the end of the assignment • Evaluate their products carrying out appropriate tests 	<ul style="list-style-type: none"> • Evaluate a product against the original design specification • Evaluate it personally and seek evaluation from others 	<ul style="list-style-type: none"> • Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests • Record their evaluations using drawings with labels • Evaluate against their original criteria and suggest ways that their product could be improved 	<ul style="list-style-type: none"> • analyse the work of past and present professionals and others to develop and broaden their understanding • investigate new and emerging technologies • test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups • understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists
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