



Long Term Planning Overview	Key Stage 3	Subject Area: Design Technology	Academic Year: 2021/2022
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Year	Study Modules Assessment	Resistant Materials 1	Resistant materials 2	Textiles	Graphics	Food and Nutrition
Year 7	Study Modules	Design and make a souvenir key ring and blister pack.	Design and make a wooden tangram puzzle and box	Bag for life Introduction to Textiles technology. Learning about woven and non-woven fabrics. Using a sewing machine. Learning about a range of surface decorations. Constructing a bag for life using calico.	Design Crisp Packaging	Hygiene and safety Basic nutrition Knife skills Weighing and measuring
	Assessment	Design specification Practical and design work	Practical and design work	Design page. Practical task. Completed product.	Mood board Product Research Practical outcome: digitally designed packaging in Photoshop	Practical and design work
	Builds upon	Finding area, averages and costing Basic drawing skills	Measuring and marking out	Basic practical skills	Analytical skills	Basic practical skills Basic knowledge of healthy eating and food groups numeracy-weighing and measuring
	Introduces	Using the pillar drill Using the coping saw	Using the pillar drill and belt sander	Basic hand sewing and using a sewing machine	Basic tools in Photoshop	Food hygiene and safety

		<p>Safety in the workshop</p> <p>Marking out</p> <p>Vacuum forming</p> <p>Using 2D Design</p> <p>Writing a specification</p>	<p>Using the tenon saw</p> <p>Making basic joints</p>	<p>Biomimicry</p> <p>Methods of surface decoration</p>	<p>Concepts of layout and packaging design</p>	<p>Knife skills</p>
Year 8	Study Modules	<p>Design and make a passive speaker</p>	<p>Design and make a traditional moving toy that uses simple mechanisms to make it work</p>	<p>E-Textiles</p> <p>Introduction to electronic textiles.</p> <p>Understand the use of a manufacturing specification.</p> <p>Understanding how a circuit works.</p> <p>Creating a workable circuit.</p> <p>Design and making a soft product to house an electronic circuit.</p> <p>Looking at new innovative ideas of the theme.</p>	<p>Design and illustrate the front cover of a fictional book</p>	<p>The study of specific micronutrients and how they contribute to a balanced diet, investigating international cuisine, conducting an investigation</p>
	Assessment	<p>Modelling and testing, use of 2D Design software</p> <p>Practical and design work</p>	<p>Modelling and use of iterative design</p> <p>Practical and design work</p>	<p>Task analysis.</p> <p>Manufacturing specification.</p> <p>Practical task.</p> <p>Completed product</p>	<p>Research of illustrators</p> <p>Own design ideas</p> <p>Final book cover design</p>	<p>Written work showing nutritional knowledge and application to recipes.</p> <p>Pizza investigation write-up.</p> <p>Practical work</p>



	Builds upon	Measuring and marking out Using the pillar drill	Finding area, averages and costing Writing a specification Use of basic hand tools and machines	Hand sewing and using the sewing machine	Knowledge of layout and graphic design. Basic drawing tools used in Adobe	Basic knowledge off healthy eating Knife skills, use of oven, hob and grill
	Introduces	Sustainability Oral communication (student presentation) Using CAD/CAM	Types of motion, levers and linkages Basic mathematical calculations involving mechanisms Modelling and testing	E-Textiles and creating a circuit Making a simple pattern/template	Creating digital art from scanned images	Knowledge of micronutrients
	Study Modules Assessment	Resistant Materials (wood and timber)	Electronics	Textiles	Graphics	Food Science
Year 9	Study Modules	Design and make a small storage unit to store and/or display items of your choice	Create a colour changing nightlight.	Pattern cutting Building on from year 7 scheme. Designing and making a bag of choice. Pattern cutting. Using blocks. Constructing a viable product based on a manufacturing specification.	Branding for Shop	Sensory analysis and methods of testing, planning a food science investigation. The study of basic food science and how protein and starch change during cooking to create specific foods.

	Assessment	Written work showing understanding of the properties and uses of timber, use of primary research to investigate a design problem. Practical work	Written work showing understanding of current, resistance, Ohms law. 2D design and CAD drawings, Final practical outcome	Observational drawing. Manufacturing specification. Practical task. Completed product	Written analysis of evidence understanding of existing brands Hand-drawn designs Digital Outcomes (in Adobe Illustrator and Photoshop)	Written work showing understanding of coagulation, denaturation, synerisis, gelatinisation. Write-up of food science experiment.
	Builds upon	Measuring and marking out Using CAD/CAM	Basic knowledge of current, voltage and resistance (taught in science) Use of 2D Design Use of basic workshop tools and equipment Flow charts and coding (taught in computing)	Using templates and patterns. Using the sewing machine.	Using Adobe illustrator and Photoshop to create graphic products	Practical skills and presentation of recipes.
	Introduces	Making a finger joint Methods of finishing natural timber Analysing a context and researching a design problem	3D CAD modelling (Sketchup) Ohms law and mathematical calculations relating to electronics Soldering technique and use of electronic components	Creating pattern blocks Manufacturing specifications	Branding and creating a logo and concept designs. Digital designing for clients.	Food science

			Creating a simple circuit			
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