

Progression of Skills Design and Technology Upper KS 2	Developing, Planning and Communicating Ideas	<p>Investigate products/images to collect ideas</p> <ul style="list-style-type: none"> <li>• Sketch and model alternative ideas</li> <li>• Develop one idea in depth</li> <li>• Combine modelling and drawing to refine ideas</li> <li>• Plan the sequence of work using a storyboard</li> <li>• Record ideas using annotated diagrams</li> <li>• Use models, kits and drawings to help formulate design ideas</li> <li>• Make prototypes</li> <li>• Use found information to inform decisions</li> <li>• Use a computer to model ideas</li> <li>• Draw plans which can be read/followed by someone else</li> <li>• Give a report using correct technical vocabulary</li> </ul>	
	Materials and Components	<p>Food</p> <p>Prepare food products taking into account the properties of ingredients and sensory characteristics</p> <ul style="list-style-type: none"> <li>• Select and prepare foods for a particular purpose</li> <li>• Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing.</li> <li>• Weigh and measure using scales</li> <li>• Cut and shape ingredients using appropriate tools and equipment e.g. grating</li> <li>• Join and combine food ingredients appropriately e.g. beating, rubbing in</li> <li>• Decorate appropriately</li> <li>• Work safely and hygienically</li> <li>• Show awareness of a healthy diet from an understanding of a balanced diet</li> </ul>	
	Knowledge and Understanding	<p>Textiles</p> <p>Create 3D products using pattern pieces and seam allowance</p> <ul style="list-style-type: none"> <li>• Understand pattern layout</li> <li>• Decorate textiles appropriately often before joining components</li> <li>• Pin and tack fabric pieces together</li> <li>• Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision)</li> <li>• Combine fabrics to create more useful properties</li> <li>• Make quality products</li> </ul>	
	Sheets materials	<p>Construction</p> <p>Use bradawl to mark hole positions</p> <ul style="list-style-type: none"> <li>• Use hand drill to drill tight and loose fit holes</li> <li>• Cut strip wood, dowel, square section wood accurately to 1mm</li> <li>• Join materials using appropriate methods</li> <li>• Incorporate motor and a switch into a model</li> <li>• Control a model using an ICT control programme</li> <li>• Use a cam to make an up and down mechanism.</li> <li>• Build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms</li> <li>• Use glue gun with close supervision</li> </ul>	
		<p>Sheets materials</p> <p>Cut slots</p> <ul style="list-style-type: none"> <li>• Cut accurately and safely to a marked line</li> <li>• Join and combining materials with temporary, fixed or moving joinings</li> <li>• Use craft knife, cutting mat and safety ruler under one to one supervision if appropriate</li> <li>• Choose an appropriate sheet material for the purpose</li> </ul>	

		Evaluating	<p>Use the design criteria to inform their decisions about ways to proceed</p> <ul style="list-style-type: none"><li>• Justify their decisions about materials and methods of construction</li><li>• Reflect on their work using design criteria stating how well the design fits the needs of the user</li><li>• Identify what does and does not work in the product.</li><li>• Make suggestions as how their design could be improved</li></ul>	
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