

Progression of Skills Design and Technology Upper Key Stage 2

Materials and Components – Knowledge and Understanding	Developing, Planning and Communicating Ideas	<ul style="list-style-type: none"> • Investigate products/images to collect ideas • Sketch and model alternative ideas • Develop one idea in depth • Combine modelling and drawing to refine ideas • Plan the sequence of work using a storyboard • Record ideas using annotated diagrams • Use models, kits and drawings to help formulate design ideas • Make prototypes • Use found information to inform decisions • Use a computer to model ideas • Draw plans which can be read/followed by someone else • Give a report using correct technical vocabulary
	Food	<ul style="list-style-type: none"> • Prepare food products taking into account the properties of ingredients and sensory characteristics • Select and prepare foods for a particular purpose • Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing. • Weigh and measure using scales • Cut and shape ingredients using appropriate tools and equipment e.g. grating • Join and combine food ingredients appropriately e.g. beating, rubbing in • Decorate appropriately • Work safely and hygienically • Show awareness of a healthy diet from an understanding of a balanced diet
	Textiles	<ul style="list-style-type: none"> • Create 3D products using pattern pieces and seam allowance • Understand pattern layout • Decorate textiles appropriately often before joining components • Pin and tack fabric pieces together • Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision) • Combine fabrics to create more useful properties • Make quality products
	Construction	<ul style="list-style-type: none"> • Use bradawl to mark hole positions • Use hand drill to drill tight and loose fit holes • Cut strip wood, dowel, square section wood accurately to 1mm • Join materials using appropriate methods • Incorporate motor and a switch into a model • Control a model using an ICT control programme • Use a cam to make an up and down mechanism. • Build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms • Use glue gun with close supervision
	Sheet materials	<ul style="list-style-type: none"> • Cut slots • Cut accurately and safely to a marked line • Join and combing materials with temporary, fixed or moving joinings • Use craft knife, cutting mat and safety ruler under one to one supervision if appropriate • Choose an appropriate sheet material for the purpose
	Evaluating	<ul style="list-style-type: none"> • Use the design criteria to inform their decisions about ways to proceed • Justify their decisions about materials and methods of construction • Reflect on their work using design criteria stating how well the design fits the needs of the user • Identify what does and does not work in the product. • Make suggestions as how their design could be improved