

Key Learning in Design and Technology – Upper Key Stage 2

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Design		Make		Evaluate
<p>List tools needed before starting the activity Plan the sequence of work e.g. using a storyboard Record ideas using annotated diagrams Use models, kits and drawings to help formulate design ideas Combine modelling and drawing to refine ideas Devise step by step plans which can be read/followed by someone else Use exploded diagrams and cross-sectional diagrams to communicate ideas Sketch and model alternative ideas Decide which design idea to develop</p>		<p>Make prototypes Develop one idea in depth Use researched information to inform decisions Produce detailed lists of ingredients / components / materials and tools Use a computer to model ideas Select from and use a wide range of tools Cut accurately and safely to a marked line Select from and use a wide range of materials Use appropriate finishing techniques for the project Refine their product – review and rework/improve</p>		<p>Research and evaluate existing products (including book and web based research) Consider user and purpose Identify the strengths and weaknesses of their design ideas Give a report using correct technical vocabulary Consider and explain how the finished product could be improved related to design criteria Discuss how well the finished product meets the design criteria of the user. Test on the user! Understand how key people have influenced design</p>
Food	Textiles	Structures	Mechanical and electrical systems & ICT	
<p>Prepare food products taking into account the properties of ingredients and sensory characteristics Weigh and measure using scales Select and prepare foods for a particular purpose Work safely and hygienically Show awareness of a healthy diet (using <i>the eatwell plate</i>) Use a range of cooking techniques Know where and how ingredients are grown and processed Consider influence of chefs e.g. Jamie Oliver and school meals.</p>	<p>Use the correct vocabulary appropriate to the project Create 3D products using patterns 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</p>	<p>Use the correct terminology for tools materials and processes Join materials using appropriate methods Build frameworks to support mechanisms Strengthen, stiffen and reinforce complex structures</p>	<p>Develop a technical vocabulary appropriate to the project Use mechanical systems such as cams, pulleys and gears Use electrical systems such as motors</p>	