



## Year 9 Product Design Curriculum Plan

	Key concept/ Key question	Overview of the unit	Assessment	Cross Curricular Skills	Suggested reading material and websites:
<b>Unit 1</b>  USB lamp project	Designing for a target market,  Making using a variety of materials to create a product	Students will identify target markets and possible themes for a USB lamp project. These could be children who need a nightlight, a mood light for an office desk etc.  Students will create design ideas and then make their lamp using a variety of different process such as wood laminating to create curves, laser cutting, press forming, soldering of circuits.  <b>Key skills:</b> Perspective drawing, Isometric drawing, CAD/CAM, laminating of wood, Working with plastics, Evaluation	Formative assessment through coursework.  Peer and self-assessment throughout project.	<b>Literacy:</b> Key words to describe materials and processes. <b>Numeracy:</b> Measuring, planning and costing, working in a logical manner through design process. <b>Thinking Skills:</b> Self manager, creative thinking,	<a href="http://www.technologystudent.com/">http://www.technologystudent.com/</a> GCSE bitesize.
<b>Unit 2</b>  3D printing Architectural models	Sketching using variety of techniques, Identifying design needs for a variety of people, Use of 3d CAD software, 3d printing	Students will work in teams to form their own 'architecture firms' to redesign London architecture!  Pupils will work in teams to identify what needs London and will design architecture for their districts  Pupils will create 3d models using CAD and then 3d print these before assembling onto a scale model of London.  <b>Key skills:</b> Sketching skills, working as a	Formative assessment through coursework.  Peer and self-assessment throughout project.	<b>Literacy:</b> Key words to describe materials and processes. <b>Numeracy:</b> Measuring, planning and costing, working in a logical manner through design process. <b>Thinking Skills:</b> Teamwork, creative thinking,	<a href="http://www.technologystudent.com/">http://www.technologystudent.com/</a> GCSE bitesize.

		design team, identifying design needs for society, CAD/CAM,			
<b>Unit 3</b> Design Ventura	Designing and making  Marketing and Advertising  Costing of a product	<p>Pupils work in groups to brainstorm product ideas that would be sold in the design museum shop.</p> <p>They will design and make this product to suit a target market and will create prototype models of their design.</p> <p>In the planning stages of making they will also come up with costing of their product if it was mass produced as well as a marketing plan for their advert.</p> <p>Pupils will round off this project by presenting to the group in a dragons den style pitch.</p>	<p>Formative assessment through coursework.</p> <p>Peer and self-assessment throughout project.</p>	<p><b>Literacy:</b> Key words to describe materials and processes.</p> <p><b>Numeracy:</b> Measuring, planning and costing, working in a logical manner through design process.</p> <p><b>Thinking Skills:</b> Teamwork, creative thinking,</p>	<p>Technologystudents.com GCSE bitesize <a href="http://ventura.designmuseum.org/">http://ventura.designmuseum.org/</a></p>
<b>Unit 4</b> Storage box project	Marking and cutting of wood joints,	<p>Students will complete a focussed practical task to create a storage box for keepsakes, pencils, money etc.</p> <p>They will learn how to mark out and cut finger joints and dovetail joints before assembling their box.</p> <p>They will then decorate this using laser cut design and lacquer.</p> <p><b>Key skills:</b> Cutting accurate wood joints, assembly, finishing, lacquering,</p>	<p>Formative assessment through coursework.</p> <p>Peer and self-assessment throughout project.</p>	<p><b>Literacy:</b> Key words to describe materials and processes.</p> <p><b>Numeracy:</b> Measuring, planning and costing,</p> <p><b>Thinking Skills:</b> Self manager, creative thinking,</p>	<p><a href="http://www.technologystudent.com/">http://www.technologystudent.com/</a> GCSE bitesize.</p>

