



	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Year 7	Bug Torch Project					
	<p>Topic: Design and make a Bug Torch</p> <p>Resources: tools, materials, components</p> <p>Focus: To develop the knowledge and skills required to research, plan, design, make and evaluate a product.</p> <p>Outcome: Knowledge of health &amp; safety, different tools and materials, understanding of role of function and aesthetic qualities. Assessment based on National Curriculum based criteria.</p> <p>Duration: 14 lessons</p>					
Year 8	Sustainable Design Project			Biomimicry		
	<p>Topic: Design and make a Pencil Case, with a focus on the topic of sustainability.</p> <p>Resources: tools, materials, components, research facilities, CAD/CAM software.</p> <p>Focus: To understand the role of sustainability and target demographic in the design and making of a product. To use CAD/CAM and extend knowledge of use of tools and materials.</p> <p>Outcome: Knowledge of design communication techniques, principles of measuring, marking and accurate cutting. Different material properties e.g. wood and thermoplastics. Application of quality control and assurance in practical work. Assessment based on National Curriculum based criteria.</p> <p>Duration: 8 lessons</p>			<p>Topic: Developing &amp; creating ideas, using research into nature for inspiration.</p> <p>Resources: tools, materials, components, research facilities, CAD/CAM software</p> <p>Focus: Apply specified research to inspire designs. Applying quality control &amp; quality assurances in practical work.</p> <p>Outcome: Knowledge of design communication techniques; the principles marking, cutting &amp; finishing materials appropriately. Different material properties – Copper; Brass; Aluminium. Healthy &amp; safe workshop practice – Piercing Saw; Files; Other tools for different surface finishes. Assessment based on National Curriculum based criteria.</p> <p>Duration: 6 lessons</p>		



Year 9	CAD/CAM – Desk Top Storage				Pewter Casting
	<p>Topic: Use CAD/CAM to design and make</p> <p>Resources: tools, materials, components, research facilities CAD/CAM software</p> <p>Focus: Design &amp; make process and quality assurance. Creation of digital manufacturing sheets.</p> <p>Outcome: Knowledge and understanding of role of digital technology in design and manufacture and design communication. Assessment based on National Curriculum based criteria.</p> <p>Duration: 8 lessons</p>				<p>Topic: Casting metal</p> <p>Resources: tools, metals and other materials, components, research facilities, blow torch</p> <p>Focus: Processing and handling of metals effectively and safely</p> <p>Outcome: Accurate use of templates, knowledge of safe use of specific equipment, knowledge of finishing techniques. Assessment using GCSE criteria</p> <p>Duration: 6 lessons</p>
	Model & Make	Bagged Materials	Sketch Up	Upcycling	Multifunctional Storage
Year 10	<p>Topic: Make &amp; Model – Salad Tongs</p> <p>Resources: tools, materials, components</p> <p>Focus: Modelling for Development</p> <p>Outcome: Ideas developed via the modelling process and principles of anthropometrics and ergonomics applied. GCSE criteria based assessment.</p> <p>Duration: 5 lessons</p>	<p>Topic: Bagged Materials</p> <p>Resources: tools, materials, components</p> <p>Focus: Meaning and properties of materials.</p> <p>Outcome: Knowledge of the typical properties of different types of material</p> <p>Duration: 2 lessons</p>	<p>Topic: Sketch Up</p> <p>Resources: Digital modelling software</p> <p>Focus: Use of digital modelling to create 3D models</p> <p>Outcome: Knowledge of process of digital modelling to apply to the design and development of projects</p> <p>Duration: 4 lessons</p>	<p>Topic: Exploring the topic of upcycling &amp; generating ideas &amp; solutions to upcycle &amp; minimise waste.</p> <p>Resources: tools, materials, components.</p> <p>Focus: How to apply principles of design &amp; manufacture, to shape &amp; form materials appropriately. Processing materials, which have become waste to produce new products.</p>	<p>Topic: To produce a multifunctional product, which uses a wooden framework as a part of its construction.</p> <p>Resources: tools, materials, components</p> <p>Focus: Exploded drawing, specific tools.</p> <p>Outcome: Create accurate working drawings, to show separate components associated with their designs – Exploded drawings. Knowledge &amp; use of specific tools &amp; equipment – Marking Knife, Marking Gauge, Try Square, Tenon Saw, Chisels, Bench hook &amp; Mortice Drill. How to shape &amp; form materials appropriately – Wooden framework, Sheet wood &amp; material top.</p> <p>Duration: 9 lessons</p>



				<p>Outcome: Healthy &amp; safe workshop practice. Knowledge of materials &amp; the use of a range of tools &amp; equipment, selected by pupils, to suit their project needs.</p> <p>Duration: 5 lessons</p>	
	Non Examination Assessment				
Year 11	<p>Topic: NEA</p> <p>Resources: Folders, computers, design software, workshop access, tools &amp; materials.</p> <p>Focus: Design, Make and Evaluate</p> <p>Outcome: NEA – 50% of pupils overall grade. Pupils will have completed a 20-25 page folio, demonstrating their knowledge &amp; understanding of the various factors, which go into analysing, researching, planning, designing, developing, making &amp; evaluating a particular chosen context. Design communication techniques, including sketching, modelling, digital modelling &amp; through practical work. Knowledge &amp; use of a range of tools, equipment &amp; processes.</p> <p>Duration: 30 Hours</p>				