



ST CATHERINE'S COLLEGE

A CHURCH OF ENGLAND ACADEMY

Learning overview for Design & Technology

Year Group: 9

Term	Key topics / scheme of work	What most pupils will learn (Prior assessment may alter starting point & content)	Key skills used?	How will this learning be assessed?
Lamp project.	<i>Design and make using systems and control and electronics.</i>	<p>Pupils will follow the design process to solve the problem posed by the design context.</p> <p>Pupils will create an innovative, unique and imaginative lamp.</p> <p>Pupils will use the design skills developed in Yr. 7 and 8 and build on these to use the laser cutter, acrylic, and birch faced plywood to create their imaginative design.</p> <p>Knowledge understanding and recall of the properties of hardwoods, softwoods, and manufactured boards will be important. Pupils will also need to understand the environmental principles involved with the selection of</p>	<p>Pupils will use the design process.</p> <p>Pupils will learn how to research properties and stock forms of timber and understand how to choose timbers for selection.</p> <p>Pupils will learn perspective drawing.</p> <p>Pupils will further develop their CAD skills using 2D Design and Trimble SketchUp.</p> <p>Pupils will practise recall of their knowledge of timber products and electrical components.</p> <p>Pupils will understand how to use a laser cutter.</p>	<p>Ongoing teacher assessment the department marking policy.</p> <p>Short tests.</p> <p>Assessment of homework using the school marking policy.</p> <p>Feedback on manufacturing skills is verbal and ongoing.</p>





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		materials and understand stock forms, nesting, tessellation and understand production methods such as just in time (JIT) automation, and different production methods such as bespoke product and mass production.		
Pewter casting	<i>Pupils will design and make a product using pewter casting methods.</i>	Pupils will understand how to design and make a product using metals.	Pupils will use the brazing hearth and pewter to create an imaginative and interesting design.	Ongoing teacher assessment using the department marking policy. Short tests. Assessment of homework using the school marking policy. Feedback on manufacturing skills is verbal and ongoing.