

KS5 YEARS 12 & 13 DESIGN AND TECHNOLOGY 2020/21

| YEAR           | TERM 1 (Autumn)   | TERM 2 (Spring)  | TERM 3 (Summer)   |
|----------------|---|--|---|
| <b>YEAR 12</b> | <p><b>THEORY:</b><br/>Topic 1: materials<br/>Topic 2: performance characteristics of materials</p> <p><b>PRACTICAL:</b><br/><i>Workshop:</i> skills lathe, centre lathe, milling laser cutter</p>   | <p><b>THEORY:</b><br/>Topic 3: processes and techniques<br/>Topic 4: digital technologies</p> <p><b>PRACTICAL:</b><br/><i>Design and make tasks:</i><br/>Sketching and modelling</p>   | <p><b>THEORY:</b><br/>Topic 5: factors influencing the development of products<br/>Topic 6: effects of technological developments</p> <p><b>PRACTICAL:</b><br/>Identification and investigation of a design possibility</p> |
| <b>YEAR 13</b> | <p><b>THEORY:</b><br/>Topic 7: potential hazards and risk assessment<br/>Topic 8: features of manufacturing industries</p> <p><b>PRACTICAL:</b></p> <ul style="list-style-type: none"> <li>• Investigation of client/end user needs, wants and values</li> <li>• Research and production of a specification</li> <li>• Design ideas</li> <li>• Development of a design idea</li> <li>• Final design solution</li> <li>• Review of development and final design</li> <li>• Communication of ideas</li> </ul> | <p><b>THEORY:</b><br/>Topic 9: designing for maintenance and the cleaner environment<br/>Topic 10: current legislation</p> <p><b>PRACTICAL:</b></p> <ul style="list-style-type: none"> <li>• Design manufacture and realisation of a final prototype (including tools and equipment, quality and accuracy)</li> <li>• Testing</li> <li>• Evaluation</li> </ul> | <p><b>THEORY:</b><br/>Topic 11: information handling, modelling, forward planning<br/>Topic 12: further processes and techniques</p> <p><b>PRACTICAL:</b></p> <ul style="list-style-type: none"> <li>• Revision</li> </ul>  |