

# Year 10 – GCSE DESIGN TECHNOLOGY Programme of Study

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p><b>Educational toy project. (A mock piece of coursework).</b></p> <p><b>An introduction the DT GCSE</b></p> <p><b>Key content covered:</b></p> <ul style="list-style-type: none"> <li>• Design context/spider diagram/research options</li> <li>• Mood board</li> <li>• Analysis of existing products</li> <li>• Client profile</li> <li>• Specification</li> <li>• Design ideas</li> <li>• Developed idea</li> <li>• Modelling/testing.</li> <li>• Exam starter questions.</li> </ul> <p><b><u>Milestone Assessment:</u></b> An exam style test on Timbers and Manufactured boards</p>	<p><b>Educational toy project. (A mock piece of coursework)</b></p> <p><b>Key content covered:</b></p> <ul style="list-style-type: none"> <li>• Anthropometric data.</li> <li>• Ergonomics.</li> <li>• Finishes.</li> <li>• Manufacturing a product.</li> <li>• Client feedback.</li> <li>• Testing.</li> <li>• Modifications &amp; Improvements.</li> </ul> <p><b><u>Milestone Assessment:</u></b> Finished prototype for mock coursework outlined above</p>	<p><b>Computer aided design and computer aided manufacture.</b></p> <p><b>Key content covered:</b></p> <ul style="list-style-type: none"> <li>• What is CAD/CAM?</li> <li>• Using CAD software 2D Design &amp; Sketchup</li> <li>• Tutorials in software</li> <li>• Presenting your mock up through CAD</li> <li>• Advantages of CAM</li> <li>• Pictorial details.</li> <li>• Technical details.</li> <li>• Production details.</li> <li>• Modifications and further developments.</li> </ul> <p><b><u>Milestone Assessment:</u></b> Fully rendered technical drawings using CAD</p>	<p><b>Materials research.</b></p> <p><b>Key content covered:</b></p> <ul style="list-style-type: none"> <li>• Development in new materials.</li> <li>• Smart and Modern Materials.</li> <li>• Thermoforming and thermosetting polymers.</li> <li>• Ferrous and non ferrous metals.</li> <li>• Papers and boards.</li> <li>• Design task using gained knowledge</li> </ul> <p><b><u>Milestone Assessment:</u></b> Focussed practical task responding to a brief.</p>	<p><b>Exam topics.</b> Investigating resources</p> <p><b>Key content covered:</b></p> <ul style="list-style-type: none"> <li>• The exam and how to revise</li> <li>• What does the format look like?</li> <li>• Materials.</li> <li>• Smart Materials.</li> <li>• Electronics.</li> <li>• Mechanical devices.</li> <li>• DT and the 21st century.</li> <li>• Designers.</li> </ul> <p><b><u>Milestone Assessment:</u></b> An exam style test on topics covered.</p>	<p><b>Start of DT GCSE coursework</b></p> <p><b>Section A:</b> Identifying and investigating design possibilities.</p> <p><b>Key content covered:</b></p> <ul style="list-style-type: none"> <li>• The contextual challenge</li> <li>• Analysis of contexts</li> <li>• Developing a client</li> </ul>