# Year 11 – GCSE DESIGN TECHNOLOGY Programme of Study

| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| **DT GCSE coursework**<br><br>**Section B.** Developing a design brief and specification.<br>**Section C.** Generating and developing design ideas.<br><br>**Key content covered:**<br>• Final Brief and Specification<br>• Design concept – What does your design need to do?<br>• Initial large numbers of sketches / ideas<br>• Computer Aided Design (CAD)<br>• Initial models<br>• Check ideas against the specification<br>• Initial testing and feedback<br>• Improvements to selected designs<br>• Focussed anthropometric research, leading to ergonomic designs<br>• Materials testing<br>• Environment issues<br>• Client / target market input / feedback<br>• Initial evaluations | **DT GCSE coursework**<br><br>**Section D.** Manufacturing a prototype.<br>**Section E.** Analysing and evaluating design decisions and prototypes.<br><br>**Key content covered:**<br>• Sequence of Production.<br>• Pictorial details.<br>• Technical details<br>• Production details.<br>• Final prototype manufactured<br>• Full testing by focus group and client<br>• Final evaluation against specification<br>• Modifications and further developments.<br>• Evaluation of Final Prototype.<br>• Final improvements and modifications | **Exam preparation**<br><br>**Key content covered:**<br>Core technical principles. Exam Prep<br>• Development in new materials.<br>• Smart and Modern<br>• Materials.<br>• Thermoforming and thermosetting polymers.<br>• Ferrous and non ferrous metals.<br>• Papers and boards.<br>• Textiles - natural and synthetic fibres.<br>• Electronic systems.<br>• Systems approach,<br>• Microcontrollers.<br>• Mechanical components and devices.<br>• Gears, Levers and Pulleys<br>• DT and our world.<br>• New & emerging technologies.<br>• Energy generation & storage.<br>• Natural and manufactured timbers.<br>• Investigating, Designing, Making and Evaluating<br><br>**ASSESSMENT:**<br>Exam style questions | | **Final targeted exam preparation**<br>As Spring term. | |