

D&T
GCSE Resistant Materials
Medium/Long Term plan

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p><i>Introduction to course</i> 60% Coursework, 40% Exams Exams 1.5 hrs each; some multiple choice <i>Health and Safety</i> in the workshop Review of safety procedures Expectations/choices and consequences</p> <p><i>Focused Practical</i> Skills practice including: Marking out, Forming, Wasting, Finishing Bending, Joining, Drilling, Sawing, Cutting, Filing and Abrasives using materials appropriate to project.</p> <p><i>Introduction to Design process</i> including: Design Brief Research Design Specification Product Specification</p> <p><i>Design Folio</i> to include: Design Brief Research into the brief-existing solutions Research into the brief-critical measurements Research into the brief-target audience questionnaire</p>	<p><i>Design Folio</i> to include Design Specification based upon research and audience preferences Product Specification based upon Design Specification but quantified and measurable</p> <p><i>Skill development</i> including: Isometric drawing, orthographic projection, Oblique drawing, 1 and 2 point perspective and Computer Aided Design</p> <p>Principles and use of <i>Anthropometrics, Ergonomics and Aesthetics</i> in product design</p> <p><i>Design Folio</i> to include: Generation of annotated design proposals Evaluation of design proposals against specifications Chosen idea Development of chosen idea Evaluation of developed ideas Final idea-annotated and detailed Working drawing-dimensioned</p>	<p><i>Trialling and Testing</i> of materials, joints, components and production methods</p> <p><i>Design folio to include:</i> Photographic evidence of testing Results of trialling Conclusions drawn from results Subsequent changes made to design following conclusions Final post-testing design Critical flow production plan Cutting list</p> <p>Gathering of materials</p> <p>Commencement of realisation/making</p>	<p>Continuation of realisation</p> <p>Machine and hand tool demonstrations re-visited as individuals require, including: Marking out, Forming, Wasting, Finishing Bending, Joining, Drilling, Sawing, Cutting, Filing and Abrasive use</p> <p>Centre and Wood turning lathes</p> <p>Properties of materials-woods, plastics, metals</p> <p>Types of production-mass, batch, one-off, just in time</p> <p>Testing and evaluation of finished product</p> <p><i>Design folio to include:</i> Photographic evidence of each stage of realisation and of testing Results of testing Written evaluation against Specs</p>	<p>Continuation of Testing and Evaluation</p> <p><i>Design folio to include:</i> Health and safety whilst making Future improvements to product design based upon Testing and Evaluation Future improvements to product manufacture</p> <p>Sustainability in design: Recycle Reduce Rethink Repair Reuse Refuse CDTPU</p> <p>Design folio updating</p> <p>Exam preparation: Past papers BBC Byte-size and student workbook-based revision</p>	<p>Exam preparation: Past papers BBC Byte-size and student workbook-based revision</p> <p>Exams 2x 1.5 hours each</p>