



Autumn Term 1B	<p><b>Unit 3&amp;5 Developments in new materials.</b> Students must be aware of a broad range of different materials, their properties, stock forms and how to work with these materials. They must be aware of the production techniques, finishes and enhancements for each of the following materials:</p> <ul style="list-style-type: none"> <li>■ <b>Wood and manufactured boards, Polymers, Metal and alloys.</b></li> </ul> <p><b>Practical Task: Metal bottle opener practical project</b> – Students to design and make a bottle opener with the use of workshop tools and equipment. <b>Focus:</b> Health and safety, practical skills in Metal, Quality of Finish.</p>	Practical grade for the metal bottle opener.
Spring Term 2A	<p>Students to continue developing their subject knowledge in the following areas:</p> <p><b>Unit 3&amp;5 Developments in new materials.</b> Students must be aware of a broad range of different materials, their properties, stock forms and how to work with these materials. They must be aware of the production techniques, finishes and enhancements for each of the following materials:</p> <ul style="list-style-type: none"> <li>■ <b>Modern, Smart, Composite and Technical textiles</b></li> </ul> <p><b>Unit 6 Design Principles</b> Students look the different areas required to research and develop a design solution ready for manufacturing.</p> <ul style="list-style-type: none"> <li>■ <b>Primary and secondary Investigation.</b> A look into types of research required to develop a product (materials, ergonomics etc).</li> <li>■ <b>The work of others.</b> Students look at existing products and the work of famous designers, with a specific user group in mind (age, gender, interest etc).</li> </ul> <p><b>Practical Task: Analysis of a product</b> – Students to critically analyse an existing product using ACCESSFMM. <b>Focus:</b> Critical analysis in a range of areas and formal extending writing techniques.</p>	<p><b>Assessment</b></p> <p>End of unit 3&amp;5 test.</p> <p>Analysis of a Product Grade.</p>
Spring Term 2B	<p>Students to continue developing their subject knowledge in the following areas:</p> <p><b>Unit 6 Design Principles.</b> Students look the different areas required to research and develop a design solution ready for manufacturing.</p> <ul style="list-style-type: none"> <li>■ <b>Design Strategies.</b> Issue designers must consider in order to create a successful product (Collaboration, inclusive design, design fixation, testing etc).</li> <li>■ <b>Communication of Design ideas.</b> Understanding the different ways design are communicated (sketching, Isometric drawing exploded views etc).</li> </ul> <p><b>Practical Task: Design for the future project</b> – Students to redesign a product in order to make it more suitable for a specific group. Focus on developing creative ideas, freehand sketching techniques and presentation skills.</p>	<p>End of unit 6 test.</p> <p>Design grade for the redesigned product.</p>
Summer Term 3A	<p>Students to continue developing their subject knowledge in the following areas:</p> <p><b>Unit 4 Common specialist technical principles.</b> Students must be aware of a broad range of technical principles such as:</p> <ul style="list-style-type: none"> <li>■ <b>Mechanical devices</b> (motions, linkages, levers, cams and gears),</li> <li>■ <b>Forces and stresses</b> and calculating mechanical advantage.</li> <li>■ <b>Maths content</b> (Areas, volumes, missing lengths, missing angles, graphs, costing)</li> </ul> <p><b>Practical Task: Solving a range on mathematic problems.</b></p>	<p><b>Assessment</b></p> <p>End of unit 4 test.</p> <p>Exam questions</p>

<b>Summer Term 3B</b>	<p><b>Introduction to the NEA and the 3 briefs set by the exam board.</b></p> <p>Class brainstorming of all three briefs. One on one review on chosen brief.</p> <p><b>Introduction to Section A - the 'Contextual challenge' slide</b> students to write up a context for their chosen brief and research into existing data to support their choice of project.</p> <p><b>Introduction to Section A - the 'Client profile' slide</b> students to identify a client to interview and inform their project throughout. This will then be written up.</p> <p><b>Practical Task: Setting up of NEA Digital Portfolio, Complete Context page, complete Client profile page.</b></p>	Quality of coursework pages.
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<b>Useful Resources for Supporting Your Child at Home:</b>	<b>Homework:</b>
<a href="#">AQA Assessment Objectives</a>	Revision for ongoing theory covered in textbooks or on Seneca. Coursework with ongoing deadlines.