

| Subject        | KS4 Threshold Concepts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | How to support students' learning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Year 11</b> | <p><b>Term 1, 2 &amp; 3</b></p> <p>Students will undertake a single 'design and make' activity, which will arise from investigating one of three Contextual Challenges set by AQA.</p> <p>This assessment is to be carried out under supervised conditions</p> <p><b>Evidence:</b> Electronic design portfolio with photographic evidence of final prototype(s). Approximately 20 pages of A3.</p> <p><b>Assessment criteria:</b></p> <ul style="list-style-type: none"> <li>• Identifying and investigating design possibilities</li> <li>• Producing a design brief and specification</li> <li>• Generating design ideas</li> <li>• Developing design ideas</li> <li>• Realising design ideas</li> <li>• Analysing &amp; evaluating</li> </ul> <p>Students will produce a prototype and an e-portfolio of evidence. Work will be marked by teachers and externally moderated by AQA</p> <p>Students will include the same content learned in year 10 but depending on the contextual challenge they choose; some areas may be more detailed/relevant than others and students can do their own independent study/research which will support accessing the higher grade boundaries.</p> <p>Students will not receive feedback on how to improve work. Teachers will use a tracker to make students aware of all tasks to be completed or that may need improvement. They will be told the grade they are working at. To make</p> | <ul style="list-style-type: none"> <li>• Encourage your child to collect primary research to support their coursework. This could be surveys/questionnaires, photographs etc.</li> <li>• Encourage your child to keep sketching and enhancing design ideas to make them more complex and imaginative.</li> </ul> <p>To achieve higher marks there must be evidence of this in their coursework.</p> <ul style="list-style-type: none"> <li>• Encourage your child to attend Session 3; during this time, they can complete or make improvements to their coursework</li> <li>• Encourage your child to review the resources often to support their learning here. All resources used in sessions are available in their Teams area.</li> <li>• Encourage your child to practice the Maths element of the course as 15% of the examination will be mathematically based.</li> <li>• Encourage your child to revise the theory needed for the examination in year 11, worth 50% of the GCSE grade. Students have been provided with an AQA revision guide, or they can use the revision resources here in their Teams area. <a href="#">STEM Learning</a> also has a variety of GCSE support.</li> </ul> |

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|  | <p>improvements, students must use the exemplar material provided.</p> <p>This project will be completed by the Easter holiday. After this the NEA will be marked by teachers and then moderated by AQA. After submission, students will focus entirely on the examination theory.</p>                                                                                                                                                                                                                                                                                                |  |
|  | <p><b>Key Vocabulary:</b></p> <p>Computer Aided Design, Product analysis, Modelling, Design context, Iterative design, Consumer, Existing products. Client needs and wants, ACCESSFM, Situation, Design Brief, 4 Ps, Isometric drawing, Rendering, Inspiration, 3 dimensional, Sociological, Physiological, Psychological, Inclusive/exclusive design, Working triangle, Ergonomics, Anthropometric data, Stereotypes, Regulations/legislation, complexity, imaginative, modelling, testing, manufacturing plan, specification, manufacture, PPE, H&amp;S, Evaluation and testing</p> |  |