

Subject	KS4 Threshold Concepts	How to support students' learning
Year 10	Term 1, 2 and 3 NEA and revision- deadline is beginning of June. During Year 10 students will complete one design and make project. This has been designed to cover all the elements required for the final GCSE project in year 11. The coursework will be submitted as an e-portfolio in Teams. Project Aims: - In this project students will identify and analyse the needs of a client - students will develop proposals for a product - Students will work in a range of appropriate media and always ensure that safety is paramount. Year 10 students will start the GCSE NEA in June	• Encourage your child to collect primary research to support their coursework. This could be surveys/questionnaires, photographs etc. • Encourage your child to keep sketching and enhancing design ideas to make them more complex and imaginative. To achieve higher marks there must be evidence of this in their coursework. • Encourage your child to attend Session 3; during this time, they can complete or make improvements to their coursework • Encourage your child to review the resources often to support their learning here. All resources used in sessions are available in their Teams area. • Encourage your child to practice the Maths element of the course as 15% of the examination will be mathematically based. • 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 in their Teams area. STEM Learning also has a variety of GCSE support.
	Term 1, 2 and 3 Skills and Processes: - Requirements for a successful controlled assessment - An understanding of the contextual challenge – <i>Creature Comforts</i>	

	- Situation analysis - mood board and Design ideas - Client profile with design ideas - CAD recap of the Inventor software - Human factors with designs - Product analysis with designs - Designer research with designs - Social, moral and economic factors - Environmental issues with designs - Designs produced in CAD - Card models - 3D Printed models - Manufacturing specifications - Demonstrate high quality manufacturing skills - Evaluation, testing and modifications
	Key Vocabulary: 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&S, Evaluation and testing