BRANNEL SCHOOL
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Curriculum Summary Document

Year 11 – GCSE 3D Design

Module/Unit of Learning	Taught During	What will students learn?	How does this prepare students for success at GCSE?	Links to other Subjects
NEA Design Development & Initial Production	September – November	Students refine advanced presentation skills, including layered sketching and visual communication techniques needed to present high-quality NEA design work. They complete the full design development stage of their NEA, generating, refining and justifying design ideas. Students prototype elements, test and adapt components, and begin the production stage of their final outcome, applying appropriate tools, processes and finishing techniques. They learn how to record evidence clearly and link design decisions to user needs and specification points.	This module directly mirrors the requirements of the NEA, contributing 50% of the final GCSE grade. Students develop the ability to explain and justify decisions, evidence practical skills and demonstrate iterative development—core assessment criteria. Beginning the production stage early allows sufficient time for high-quality outcomes and strong supporting documentation.	Art – presentation, layout and visual communication Maths – accurate measurement, tolerances and scaling Science – material behaviours, testing and safe application of processes
NEA Completion & Portfolio Review	November – January	Following PPEs, students complete the production stage of their NEA outcome, applying precision, quality control and effective finishing. They collate and refine evidence, ensuring that all design, development, modelling, testing and evaluation elements meet GCSE assessment criteria. Students review their portfolio, correct gaps or weaknesses and strengthen their written analysis so that it clearly justifies decisions.	This module ensures students meet every strand of the NEA assessment framework. High-quality annotation, accurate documentation of processes and clear evaluation directly influence the final grade. Portfolio review builds independence, self-critique and attention to detail—key transferable skills for both the NEA and the written exam.	English – extended explanation, structured justification and evaluation Science – testing methods and performance analysis Maths – precise measurement and calculating tolerances

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GCSE Component 2 Exam Preparation	January – May	Students study the full breadth of GCSE Design Technology theory required for Component 2. This includes materials and their properties, forces and stresses, mechanical devices, systems and control, energy sources, sustainability, timbers/metals/polymers, papers and boards, and key design methodologies. Students apply knowledge through structured exam practice, topic-based questions and analysis of exemplar responses. Follow-up PPEs are used to identify gaps, followed by targeted revision and refinement.	This unit builds the theoretical understanding needed to succeed in the written exam, which forms 50% of the final GCSE grade. Students apply their knowledge to exam-style questions, practise command words, and learn how to structure extended responses for maximum marks. Regular retrieval practice and exam rehearsal strengthen confidence and recall.	Science – energy sources, electronics and material science Geography – sustainability, environmental impact and global manufacturing Maths – forces, ratios, calculations, measures and scale