



YOUR
SCHOOL
JOURNEY

Year 10

3D Design

Focus: Architectural Contexts, Material Investigation, Product Realisation, and Skill Foundation **Objective:** To transition from Key Stage 3 by building industry-standard illustration and manufacturing skills, exploring Brutalist architecture to design and realise a bespoke lighting outcome, and embedding the GCSE Assessment Objectives (AOs).

Autumn Term: Introduction to GCSE & Contextual Analysis

- **Design & Illustration Masterclass:** Develop industry-standard graphical skills to generate and communicate innovative ideas. Students build upon their artistic foundations from Key Stage 3 whilst discovering advanced illustration techniques.
- **Contextual Analysis (AO1):** Formally introduce a range of design movements and influential practitioners. Students rigorously analyse Brutalist architecture and mid-century furniture design to inspire and anchor their own design process.

Spring Term: Material Exploration & Product Realisation

- **Material Investigation (AO2):** Experiment directly with structural materials such as concrete, plaster, and high-density foam to produce physical models and prototypes directly inspired by Brutalist forms.
- **Advanced Drawing Workshop:** Cultivate a fresh, unconstrained approach to graphical communication. Students experiment with diverse tools and mixed media to establish a distinct, personal drawing style that best communicates their 3D concepts.
- **Creative & Innovative Design (AO4):** Synthesise research, drawing, and material testing to manufacture a bespoke piece of lighting. This final product must clearly reflect the investigation process and Brutalist principles.

Summer Term: Skill Expansion & Coursework Preparation

- **Formal Assessment & Mock Exams:** Assess practical and theoretical understanding under formal conditions to gauge progress against GCSE criteria.
- **Skill Building Workshops:** Broaden manufacturing repertoire through targeted, rotational workshops covering printing, advanced model-making, CAD, metalwork, and ceramics.
- **Reflective Practice (AO3):** Critically evaluate practical outcomes to refine techniques and build a deeper understanding of Assessment Objectives 1, 2, and 3.
- **Project 2 Introduction:** Introduce the core themes of iconic and modern architecture, laying the contextual groundwork and initial research for the Year 11 coursework portfolio.

Educational Enrichment (Year 10)

- **Yorkshire Sculpture Park:** Participate in an immersive, practical sculpture workshop whilst critically analysing the work of inspirational artists and designers in situ.
- **Manchester City Centre Visit:** A targeted photography expedition to capture, document, and analyse the diverse architectural styles present within the local urban environment.

BUILDING EXCEPTIONAL YOUNG MEN



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Year 11

3D Design

Focus: Portfolio Refinement, The Externally Set Assignment (ESA), and Final Practical Realisation **Objective:** To finalise the personal coursework portfolio to an industry standard and rigorously prepare for, and execute, the final practical examination set by the awarding body.

Autumn Term: Portfolio Completion & Practical Mock

- **Coursework Consolidation:** Focus on refining and finalising all portfolio work. Ensure the iterative design journey is comprehensively documented, clearly annotated, and successfully meets all four Assessment Objectives.
- **Practical Mock Examination:** Undertake a formal mock exam period dedicated entirely to the rigorous manufacturing and completion of the final practical outcome for the coursework portfolio.

Spring Term: Externally Set Assignment (ESA) Preparation

- **ESA Introduction:** Receive and deconstruct the externally set assignment brief provided by the exam board.
- **Research & Exploration (AO1 & AO2):** Investigate the chosen exam theme autonomously. Students research highly relevant designers, explore appropriate material properties, and begin generating innovative design proposals in preparation for the final practical exam.

Summer Term: Final Examination & Realisation

- **External Exam Completion (AO4):** Undertake the culminating practical exam (typically under timed, supervised conditions). Students bring together their Spring term research, development, and testing to manufacture a finalised, high-quality 3D design outcome.

Programme Support & Assessment Strategy (Years 10 & 11)

Extra-Curricular Support

- **Targeted Intervention:** Students have extensive access to lunchtime catch-up clinics three times a week to refine portfolio work.
- **Advanced Manufacturing:** An exclusive, dedicated after-school club focuses specifically on advanced 3D construction and machining techniques.

Rigorous Assessment Framework

- **Practical Assessment:** Conducted every fourth lesson to closely track the development of technical manufacturing skills and material handling.
- **Theory Assessment:** Conducted every half-term to assess long-term knowledge retention and contextual understanding.
- **Rationale:** This dual-assessment approach ensures core knowledge is embedded in long-term memory. It allows staff to provide highly personalised next steps, empowering students to take ownership of their progress and independently drive their GCSE success.

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Year 10

Engineering

Focus: Core Engineering Principles, NEA Unit 1, Prototyping, and Material Science Objective: To establish a rigorous foundation in practical engineering skills, execute Unit 1 of the Non-Exam Assessment (NEA), and develop core theoretical knowledge for written examinations.

Autumn Term: Foundation Skills & NEA Unit 1

- **Practical Skills Preparation:** Undertake focused practical workshop tasks to build the high-level machining and manufacturing skills required for the upcoming coursework.
- **Design & Development (NEA Unit 1):** Commence the first major coursework unit. Produce a range of innovative, client-centered design proposals.
- **Industry-Standard Communication:** Utilise formal orthographic projection and rigorous 2D/3D Computer Aided Design (CAD) to communicate design intent.
- **Iterative Prototyping:** Investigate, model, and physically test a range of prototypes to validate concepts and check structural viability.
- **Core Theory & Assessment:** Deepen knowledge of engineering materials and their working properties, applying prior learning to formal exam contexts, culminating in an Autumn mock examination.

Spring Term: Prototype Realisation & Advanced Theory

- **Final Prototype Manufacture:** Continue and complete NEA Unit 1, developing initial models into a high-quality, functioning final prototype.
- **Advanced Material Science:** Develop theoretical knowledge of composite materials, industrial machinery, and advanced heat and chemical treatments.
- **Exam Context Challenges:** Reinforce formal drawing techniques and core material knowledge through bi-weekly, exam-style written challenges to build theoretical resilience.

Summer Term: Consolidation & Industry Links

- **Knowledge Retrieval:** Focus on comprehensive revision, systematically recapping core engineering knowledge acquired throughout the year.
- **Career Pathways:** Engage in external workshops to explore real-world industry practices and future engineering career opportunities.
- **Exam Technique:** Enhance written communication and specific exam techniques in preparation for the End of Year 10 Examinations.

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Year 11

Engineering

Focus: NEA Unit 2, Advanced Manufacturing, Production Planning, and Final Examination Objective: To independently manage and manufacture a complex final product for NEA Unit 2 and consolidate all theoretical knowledge for the culminating Unit 3 examination.

Autumn Term: Advanced Skills & NEA Unit 2

- **Practical Skills Progression:** Undertake advanced practical tasks to prepare for the rigorous manufacturing demands of the final NEA.
- **Redesign & Development (NEA Unit 2):** Commence Unit 2. Focus on iterative redesign, producing advanced orthographic drawings and sophisticated 2D/3D CAD models to solve complex engineering problems.
- **Advanced Prototyping:** Investigate, model, and rigorously test a new range of physical prototypes, demonstrating clear progression in manufacturing complexity from Year 10.
- **Theory Retrieval & Assessment:** Systematically recap knowledge of materials and their properties, applying this to high-mark exam questions, followed by an Autumn mock examination.

Spring Term: Final Manufacture & Production Planning

- **Final Prototype Manufacture:** Complete the NEA Unit 2 coursework, refining the development process to produce a flawless, industry-standard final prototype.
- **Industrial Practices Theory:** Expand theoretical knowledge on workshop Health & Safety legislation, rigorous production planning, and commercial manufacturing processes.
- **Exam Context Challenges:** Continue to hone CAD and formal drawing techniques alongside bi-weekly written challenges based on core materials to ensure absolute readiness for the final exam.

Summer Term: Final Examination Preparation

- **Comprehensive Revision:** Focus entirely on recapping all course knowledge, ensuring a deep, synoptic understanding of core engineering principles and manufacturing processes.
- **Exam Readiness:** Polish exam technique and written communication, ensuring students can articulate complex engineering concepts clearly and concisely under timed conditions.
- **Final Assessment:** Sit the culminating GCSE / Level 2 Engineering Examination (Unit 3).

Extracurricular Support (Years 10 & 11)

- **Targeted Intervention:** Fortnightly after-school revision sessions to support theoretical understanding, knowledge retrieval, and exam technique.
- **Coursework Clinics:** Additional, dedicated workshop and CAD sessions provided where required to ensure all students have the necessary time and support to maximise their NEA potential.

BUILDING EXCEPTIONAL YOUNG MEN



Year 10

Food & Nutrition

Focus: Food Science, Nutritional Analysis, Culinary Fabrication, and Component Realisation **Objective:** To equip students with the rigorous knowledge, understanding, and industry-standard practical skills required to apply principles of food science, nutrition, and healthy eating, culminating in the successful execution of both the theoretical and NEA components of the Eduqas GCSE.

Year 10: Foundation of Food Science & Practical Mastery

Autumn Term: Core Nutrition & Commodities

- **Principles of Nutrition:** Investigate current healthy eating guidelines and analyse how different foods meet specific nutritional needs. Students begin considering how to feed themselves and others affordably and nutritiously.
- **Food Commodities & Provenance:** Explore where foods come from, critically analysing packaging, shelf-life information, and how modern technology is changing the food we eat.
- **Practical Skill Development:** Develop initial practical cooking techniques (as outlined in Appendix A of the specification), bridging the gap between Key Stage 3 and KS4 expectations with a focus on safe and hygienic preparation.

Spring Term: The Science of Food

- **Chemical & Functional Properties:** Investigate *why* ingredients act in specific ways (e.g., the science behind why bread rises, emulsification, and gelatinisation).
- **Theory into Practice:** Make direct, rigorous connections between theoretical food science and practical cooking, applying newly learnt scientific principles directly to the test kitchen.
- **Menu Development & Adaptation:** Think critically about the meals consumed daily and develop strategic, practical ways to adapt or improve them for better nutritional profiles and aesthetic appeal.

Summer Term: Mock Assessments & Theory Consolidation

- **Component 1 Preparation:** Consolidate theoretical knowledge in preparation for the Year 11 written examination, building resilience through exam-style questioning.
- **End of Year Practical:** Undertake a formal practical assessment to gauge readiness for the Year 11 Non-Examination Assessments (NEA), testing time management, precision, and safe working practices.
- **Reflective Practice & Well-being:** Establish strong independent learning habits. Students are encouraged to look after their physical well-being—ensuring a balanced diet and adequate sleep—whilst maintaining a positive, resilient attitude towards their studies.

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Year 11: Non-Examination Assessment (NEA) & Final Realisation

Autumn Term: NEA 1 – The Food Investigation Assessment

- **Component 2, Assessment 1 (30 Marks):** Commence the first major Non-Examination Assessment. Conduct rigorous, science-based investigations into the working characteristics, functional, and chemical properties of selected ingredients.
- **Documenting the Journey:** Produce a comprehensive, formal written report detailing the experimental methodology, scientific findings, and sensory analysis of the investigated foods.
- **Core Theory Continuation:** Maintain rigorous, ongoing theoretical study to ensure foundational knowledge of nutrition and food provenance is securely embedded for the summer exam.

Spring Term: NEA 2 – The Food Preparation Assessment

- **Component 2, Assessment 2 (70 Marks):** Undertake the second, highly demanding NEA task. Plan, prepare, cook, and present a highly skilled final menu.
- **The 3-Hour Practical Showcase:** Execute a rigorous 3-hour practical session under formal examination conditions. Students must showcase advanced culinary techniques, impeccable hygiene, and precise time management to deliver their final dishes.
- **Critical Evaluation:** Critically analyse and evaluate the nutritional profile, sensory qualities, and overall success of the final dishes against the original brief.

Summer Term: Final Examination Preparation

- **Revision Focus (Component 1):** Comprehensive, targeted revision of all core theory—Principles of Food Preparation and Nutrition—for the final summer written examination.
- **Enhanced Exam Technique:** Refine data response, multiple-choice, and extended written answer techniques to maximise marks under timed conditions.
- **Final Assessment:** Sit the culminating Eduqas GCSE written examination, drawing upon the holistic journey of theory, science, and practical application.

Programme Support & Independent Learning (Years 10 & 11)

- **Industry Context:** Students are actively encouraged to watch relevant food-related programmes online and on TV to independently research and explore how the modern food industry operates.

Targeted Intervention: Access to regular, structured catch-up sessions for NEA portfolio refinement, alongside intensive revision clinics focusing specifically on the Component 1 written exam.

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