Engineering Design (Vocational)

Information from the exam board can be found here.

Grades awarded: Level 2 Distinction* – Level 1 Pass

Why study this subject?

At the heart of engineering design is the ability to design products which solve everyday problems. This can be through the redesigning of existing products or creating new products which positively impact on the environment or enhance the human experience. In this qualification students will be taught about different design strategies and how they are applied. Many products are developed using the design process and students will need to understand the various stages of this process. Students need to understand what information is required to create a design brief and specification for products.

What will I study in this course?

- The phases of the design process.
- Hand drawing skills.
- Computer Aided Design (CAD) skills.
- A range of practical skills.
- How the client and user influence design choices.
- Understanding how manufacturing processes influence a product's design.

How will I be assessed?

The course is assessed by a combination of classroom-based coursework (75%) and examination (25%). For the coursework you will follow the design process to complete a final product. Students will design and make a final prototype. This project starts during Year 10 and is completed at the end of the Spring Term in Year 11.

The external exam component is based around the knowledge you will study during Years 10 and 11. You will sit the examination in Year 11, typically early in the spring term.

What will this qualification lead to?

Studying engineering design can lead to A Level Product Design (offered at The King's Academy Sixth Form) or a range of vocational engineering courses. The GCSE course also covers the skills and knowledge required as an introduction to the vast range of engineering careers available. Many of our past students have continued their learning on engineering based university degree courses, Level 3 courses at other Sixth Forms and work-based apprenticeships.

How is the course structured?

	Autumn Term	Spring Term	Summer Term
Year 9	Bottle Opener Project Clock Project – Focus on wood joints	Project 2 begins- Design a wooden storage box using CAD and 3D isometric drawing techniques.	Project 2 continues learning joint techniques, hinges and finishing of different timbers.
Year 10	3D CAD design work skills. Begin working on coursework Start of Exam Topics	Continue with coursework Continue with Exam Topics	Continue with Exam Topics Begin second coursework project. Make a small project focusing on developing making skills.
Year 11	Continue with production of the second coursework unit.	Completion of the second coursework unit. Completion of exam preparation.	Completion of revision for external examination.

For more information, contact: Mrs Trotter

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