

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	Solidworks Project – How to use this professional CAD software	Passive Speaker Project – A focus on following the design process to make a product
Year 10	Puzzle Project Start of Exam Topics	Start of internal units Continue with Exam Topics	Stool Project Continue with Exam Topics
Year 11	Completion of first internal unit Continue with Exam Topics	Start of remaining internal units. First window for external exam	Completion of remaining units

For more information, contact: Mr Donnelly (Head of Engineering)

Revised: April 2021