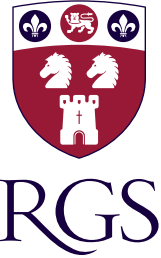


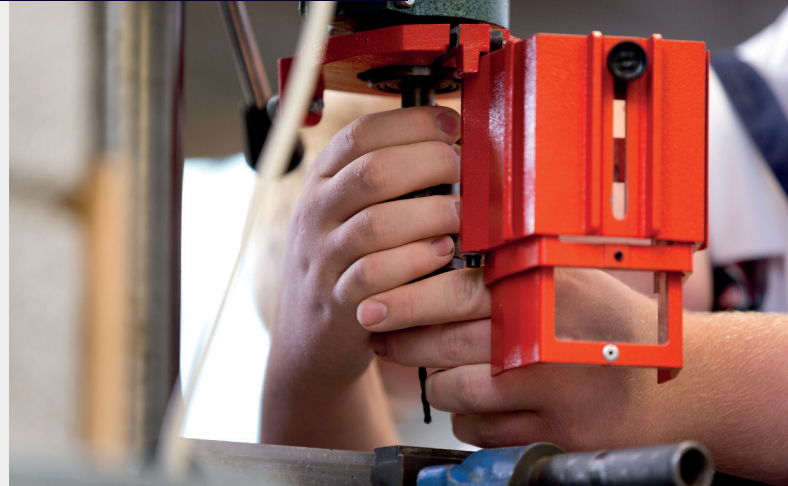
# ENGINEERING, DESIGN AND TECHNOLOGY

Head of department: Mr P Warne

Examination board: Design Engineering – OCR H404, Product Design – OCR H406



*“If you’re interested in how things move and work, are intrigued by how products continue to be popular to consumers, and ever wondered how you can design products that are good for the **environment** and designed with the user in mind, then one of the two Engineering, Design and Technology (EDT) A Levels may be right for you. You’ll need to have good **mathematical** and **scientific** knowledge as this underpins both courses.”*



## PROGRAMME OF STUDY

### DESIGN ENGINEERING

The content of this course is focused towards engineered and electronic products and systems. You’ll be asked to analyse these in respect of their function, operation, components and materials, in order to understand their application and uses in engineered products and systems that have commercial viability.

### PRODUCT DESIGN

The content of this course is focused towards consumer products and applications. You’ll be asked to analyse these in respect of the materials, components and their marketability to understand their selection and uses in industrial and commercial practices of product development.

You will study a range of materials, developing a technical understanding of how products function and how they are made to appropriately support the design and manufacture of your own design solutions. You will also learn about the wider design principles and the effect of design on users and the world we live in.

You will be asked to identify market needs and opportunities for new products, initiate and develop design solutions and make and test your own prototypes and products.

You will be required to develop a critical mind through enquiry and problem solving, exploration, creation and evaluation of iterative designs. You are encouraged to be free-thinking in your approach towards designing and making so as not to limit your possibilities of project work or the materials and processes you could use.

## ASSESSMENT

- One unit of coursework.
- Two examinations.
- You will undertake a substantial design, make and evaluate project that is centred on the iterative processes of explore create and evaluate. This will require you to identify a design opportunity or problem of your own choice and create a chronological portfolio supported by real-time evidence of your project development that highlights your approach to the project. You’ll also test a final prototype against the user and market.
- The principles exam will assess your analysis of existing products, technical knowledge and understanding of materials, product functionality and manufacturing processes and techniques, which allows you to demonstrate your understanding of design thinking and wider social, moral and environmental issues that impact on the design and manufacturing industries.
- The problem solving exam will assess your ability to apply your knowledge, understanding and skills of designing and manufacturing prototypes and products to solve a series of problems with existing products and their relationships with contexts.

## FUTURE PLANS

If you are considering a career in engineering, then Design Engineering is an excellent A Level to consider. It is worth considering studying Maths and/or Physics at A Level as well. Product Design is an invaluable subject to study if you are considering a more creative path such as industrial design and architecture. It is also worth considering studying Art at A Level if you are thinking of a creative route at university.

## TO APPLY

Grade 7-9 in Design and Technology at GCSE is recommended.