

# **Design and Technology: Product Design**

(Exam board: Edexcel)

## **Subject Leaders:**

Mrs A Wragg/Mr R Quinn

## **What do I need?**

Students with a grade 5 or above in GCSE Design and Technology, Resistant Materials, Graphic Products, Textiles Technology, Electronic Products or Product Design will be able to take this course. They must also have achieved a grade 4 in GCSE Maths, as the course has a 15% Mathematical content.

## **What will I learn?**

Students will follow a Product Design course specialising in any of these material areas; Woods, Metals, Polymers, Card & Textiles along with an underlying element of the use of CAD/CAM. This course is both practical and academic. Students will: -

- Learn how to use a variety of materials and equipment in order to produce high quality products. Learn the importance of modelling ideas and develop their skills in modelling.
- Study production processes and work through the design process to enable them to generate creative design ideas that respond to human need. Develop their ability to critically analyse and evaluate existing products.
- Look at influences upon design within our society and the work of current designers.

## **How will I be assessed?**

This is a two year A Level course, where pupils will learn the course content through mini projects and a mock NEA (Non-examined assessment – project work where pupils produce a written design portfolio and make a practical product) in Y12. All pupils will complete the two A Level units for submission in Y13, a written exam sat in the Summer term and the NEA, completed throughout Y13 for submission in April.

### **A Level Unit 1 – Examined component: Principles of Design & Technology**

Core technical principles, designing and making principles and mathematical skills will be examined along in a 2½ hour written exam made up of calculations, short answer, open response and extended answer questions.

50% of A Level  
120 marks

### **A Level Unit 2 – Coursework component**

Students will identify their own design context, in consultation with a client, and they will complete a substantial design and make project, which will assess their practical application of technical principles, designing and making principles and specialist knowledge. Students will develop a range of potential solutions, using CAD and modelling as well as managing the project and planning production. They will submit an electronic design portfolio and a prototype to evidence this work.

50% of A Level  
120 marks

### **Is there anything else I need to know?**

This is a valuable qualification if you want to go on to Higher Education in design based subjects such as Design and Technology, Product Design, Art & Design, Architecture, Fashion Design and Engineering.

However, there are many transferable skills that will be useful to candidates pursuing further studies and careers in other subjects as well as in their personal lives. For example, problem solving, teamwork, research and planning techniques, analysing and evaluating information.

This is an interesting and stimulating subject for study in the Sixth Form and combines well with courses in History, English, Drama and Art for entry into careers in the Arts, or with Mathematics and/or Sciences for careers in Architecture, Engineering and Product Design.