

# PRODUCT DESIGN

Exam Board: AQA



## Aims of the Course

We live in a world where good design and sound engineering is implicit in almost every aspect of our lives, from the cars we drive, the gadgets we use, the houses we live in and the medical equipment that helps save lives. Product Design is the gateway into an exciting and ever expanding world filled with many opportunities which our students can take full advantage. Could you be the next James Dyson? Jonathan Ive? or Norman Foster?

This creative and thought-provoking qualification gives students the practical skills, theoretical knowledge and confidence to succeed in a number of careers. Especially those in the creative industries and engineering. They will investigate historical, social, cultural, environmental and economic influences on design and technology, whilst enjoying opportunities to put their learning in to practice by producing products of their choice. Students will gain a real understanding of what it means to be a designer, alongside the knowledge and skills sought by higher education and employers.

## Types of Learning Experience

The course also provides opportunities for students to develop key skills, such as:

- Communication,
- Using Information Technology, Working with others,
- Improving own learning and performance
- Problem solving,
- Project management
- Creative and Designing Skills

***As students have the opportunity to choose their own projects much of the learning is individual. Students research and explore problem scenarios and generate their own solutions. Tutor input is of course an important aspect of the course; students are given individual support with particular aspects of their work and formally taught lessons are used to increase student knowledge and understanding of designing, materials and processes. Group and class discussion is used regularly to help students critically analyse their work and the work of other designers***

## Entry Requirements

Study of a Design and Technology subject at Key Stage 4 is desirable but not essential. Due to the nature of the exam and the requirements of the Non Examined Assessment a Grade 4+ in Maths GCSE is also desirable.



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## Year 1

Students will spend time developing the skills, knowledge and understanding and creative abilities required for successful completion of the course.

They will do this through a series of design and make projects which give them opportunities to practice their skills and develop their knowledge and understanding.

### Assessment:

Teacher assessment of Project work and practice exam questions.

## Year 2

Students will complete the Non Examined Assessment Design and Make Project and further develop the knowledge and understanding and skills required to complete the Exam successfully.

### Link Subjects

Product Design may be taken with any other subject. Successful combinations in the past have included Maths, Sciences, History, Geography, Art, Drama and Business Studies.

### Maths and Science

Students are required to demonstrate their application of knowledge, understanding and skills of maths and science in both theoretical and practical ways. Design and technology uses maths and science to support decisions made in the processes of designing and making.

### Progression to Higher Education

The course provides a suitable foundation for the further study in any design or engineering discipline.

### Careers

The nature of the course is such that it would be very useful to students considering a wide variety of careers that are related to design, manufacturing, engineering and the arts.

## UNIT 1: EXAM 50% of A LEVEL

### Paper 1:

Tests students knowledge and understanding of Core Technical Principle and Core Designing and Making Principles

**2 Hours 100 Marks 25% of A Level**

### Paper 2:

Tests students Product Analysis skills and Knowledge and Understanding of Commercial Manufacturing techniques.

**2 Hours 100 Marks 25% of A Level**

## UNIT 2 : Non Examined Assessment (NEA)

Students demonstrate the Practical Application of Technical Principles and Design and Making Principles, as well as, their specialist knowledge through a design and make activity . This can be submitted as a written or digital portfolio and is externally moderated.

**45 Hours 100marks 50% of A Level**

### Core Knowledge

Students will be assessed on all areas of the Core Knowledge. These include:

- Materials and their Applications
- The requirements of Product Design and Development and Manufacture
- Design Communication
- Digital Design and Manufacture
- Social Moral and Historical influences on design
- Commercial issues associated with Designing
- Designing for Economical Manufacture, Repair and Maintenance.

### Specialist Knowledge

As students are able to select their own design brief for the NEA there is a opportunity for them to specialise within the requirements of the assessment criteria.

