

A-Level Design and Technology

3D Product Design (AQA)

This course will develop your appreciation of the complex relations between design, materials, manufacturing and marketing. You will have the opportunity to develop skills in designing and making your own 3D products. The department have a successful A Level subject area with a proven track record of achievement.

The course is taught in purpose-equipped workshops and teaching spaces. The course will suit you if; you have enjoyed being creative and are interested about who, what, why and where a product is required; you enjoy the subject and want to study a creative subject to break up your timetable of more traditional formal subjects; you have enjoyed understanding and learning about materials and the process allowing them to be used effectively to make products.

Qualities and qualifications needed

Students must have a Level 2 Distinction or above in Engineering or Grade 6+ in GCSE Design and Technology, Grade 5+ in GCSE English and Grade 5+ in GCSE Mathematics – must be entered into the higher tier paper.

How will the course be assessed?

The AQA A-Level Design and Technology 3D Product Design qualification is assessed through both external assessed written examination and through internally assessed assignment work.



50% Examination



50% Non-Examination
Assessment



Course Content

Making products involves working with a range of materials. Only by experiencing working with materials first-hand can you start to understand their priorities and the ways in which those materials can be used for a variety of purposes. When designing, you will need to understand what the user or client requires, and then go on to provide them with a functional prototype, which can be tested so you and your user or client can judge how successful it is.

During year one, you will be taught how to work safely in a manufacturing environment. Our main aim will be to ensure that you are able to use the machines and equipment safely and accurately while becoming more independent. You will spend time testing products, materials and processes including CAD/CAM to increase your confidence in the workshop. You will also use this knowledge to help you analyse why materials and processes have been used to make a range of commercial products. Both of these areas will help you to make decisions in your own personal project (NEA).

Making sustainable choices when choosing materials, and the importance of recycling and designing products that meet current legislation will also be part of the second year of study.



Examinations

Unit 1 = 50% of A-Level

Paper 1: Technical Principles = 30% of A-Level

2 hour 30 minutes examination (120 Marks)

- Product Analysis
- Commercial Manufacture

Paper 2: Designing and Making Principles = 20%

1 hour 30 minutes examination (80 Marks)

- Product Analysis
- Commercial Manufacture

Unit 2 = 50% of A-Level

Non Examination Assessment (NEA) = 50% (200 marks)

- Principle application of product analysis, commercial manufacture

Methods of curriculum delivery

Core activities during year one in Product Design will include designing and making a range of products using different materials and processes. The aim of this will be to equip students with many of the skills they will require to be successful when they work on their own major project during year two. Specific knowledge that has to be learnt to be successful in the written examination is taught in a formal setting in the Product Design classroom.
