

A student's guide to the GCSE in

DESIGN & TECHNOLOGY (SHORT COURSE)

What is GCSE Design & Technology (short course) all about?

The short course is equivalent to half a full GCSE.

It involves the study and assessment of half the content of the full GCSE and the development of half the amount of coursework. The short course will probably be delivered in half the time of a full GCSE course.

Firstly, you must decide which material area you wish to specialise. You may have a choice of:

- Food Technology
- Textiles Technology
- Resistant Materials Technology
- Graphic Products
- Systems and Control Technology, which has a choice of two possible routes; Mechanics or Electronics

From your chosen area you will be involved in the study of:

- Materials and components
- Production processes
- Industrial processes
- Social, moral, ethical and environmental issues of product design
- Product analysis
- Designing and making processes

You will then apply this knowledge and understanding when designing and making a 3D product and an A3 portfolio of design work.

Will I enjoy the course?

You will enjoy this course if you want to study a subject that:

- is both creative and technical
- is relevant to the consumer society you live in
- encourages you to be a discerning consumer
- enables you to design and make products
- places an emphasis on practical work
- develops a full range of skills that will be useful in other subjects you study and in employment.

How does it follow on from what I have learned before?

At Key Stage 3 you may have had a wide experience of all five material areas. You may have produced small-scale products and design folders using all these materials. Your knowledge and understanding from some of these areas will have been tested in the end of year exam.

The GCSE in Design and Technology allows you to decide which material area you feel best suits your own particular skills and attributes.

You will produce products and design folders and be examined on your knowledge and understanding in your chosen area. However the products and folders will be larger or more sophisticated than the Key Stage 3 projects and you will have a lot more time to design and produce products, and develop an in-depth understanding of the materials and processes within your chosen area.

What about exams?

There will be one 1-hour exam at the end of your course worth 40% of the total marks. The exam will be made up of 3 questions:

- A question worth 10% which tests the knowledge and understanding of materials, components and their properties which are set out in the specification.
- A question worth 10% which tests the knowledge and understanding of production processes.
- A product analysis question worth 20% which gives you information about a product made from materials from your chosen area. It will ask you to analyse the product by saying, for example, which materials it is made from, how it is manufactured and why it was designed in such a way.

Is there any coursework?

The coursework is the major part of the Design and Technology course. It accounts for 60% of the total marks.

You will be given a choice of one from 15 project briefs.

You will be expected to produce a 3D product in your chosen material area with an accompanying 10 page A3 design folder.

The coursework project is expected to be produced within 20 hours.

Example coursework projects have been prepared by Edexcel to give you a guide to common approaches and good practices.

What about my results?

Towards the end of August you will be given a grade from A* to G which includes both the exam and coursework results.

What other skills might I develop?

The course places an emphasis on the design and manufacture of quality products. You will be required to look at commercial products and form opinions as to their ability to satisfy consumer needs. You will also be asked to consider how these needs relate to moral, social, ethical and environmental issues.

The designing process allows you to develop skills of problem solving and lateral thinking as well as developing communication techniques using a variety of media including the use of ICT.

The making process allows you to explore and practice a wide variety of traditional and modern manufacturing techniques. It develops your understanding of the working properties of a range of materials.

Above all, it encourages you to be imaginative and experimental when combining materials and using or developing processes. You will build confidence in your ability to work with materials to produce quality products.

What could I do next with a GCSE in Design and Technology?

These GCSEs are designed to progress directly to the Advanced Subsidiary (AS) and then on to the Advanced GCE in Design and Technology.

Edexcel Advanced level Design and Technology provides you with the opportunity to carry on developing your skills in the same material area as chosen for GCSE study.

The GCSE in Design and Technology also provides a good foundation for the study of Vocational A levels in Manufacturing or Engineering.

GCSE Design and Technology is an important foundation for many jobs and courses you may pursue in employment or further or higher education such as:

Food

Food Science
Food Technology
Food and Consumer Studies
Biotechnology
Food Economics
Food Marketing Management

Systems and Control

Engineering (Electrical/Mechanical)
Physics
Computer Analysis/Programming/Control
Systems Analysis

Resistant Materials

Design
Furniture Design
Industrial Design
Interior Design
Materials Science

Graphics

Graphic Design
Computer Graphics
Art and Design

Textiles

Textiles Technology
Fashion Design
Interior Design