Q. HOW CAN I FIND OUT MORE?

There are a number of ways that you can find out more about Engineering.
These include:

- CCEA microsite www.ccea.org.uk/engineering
- teachers at your school or college
- students who have already studied the subject

Student Guide

engineering single award

Rewarding Learning

COUNCIL FOR THE CURRICULUM EXAMINATIONS AND ASSESSMENT 29 Clarendon Road, Clarendon Dock, Belfast BT1 3BG
+44 (0)28 9026 1200 +44 (0)28 9026 1234 +44 (0)28 9024 2063 info@ccea.org.uk www.ccea.org.uk

Rewarding Learning

REVISED GCSE STUDENT GUIDE ENGINEERING (SINGLE AWARD)

For first teaching from September 2009

For first assessment from Summer 2010
For first award in Summer 2011

engineering single award

Student Guide

Student Guide for Revised **GCSE Engineering**

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GENERAL INFORMATION

In studying this course you will gain a comprehensive introduction to the world of Engineering. You will learn about the process of designing, you will make an engineered product from two materials and you will also learn about engineering materials and components. You will learn about other aspects of engineering such as the application of new technologies and sustainable development.

WHY STUDY ENGINEERING?

It's fun to design:

- you get to use graphics to communicate your design ideas; and
- you get to use Computer Aided Design tools to present your work.

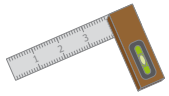
It's fun to make:

- you get to make a specified product;
- you get to work with tools and machines;
- you get the satisfaction of transforming a block of material into a functional part; and
- you get an insight into the world of engineering and the many opportunities it has to offer.

CCEA microsite
www.ccea.org.uk/engineering

Q. WHAT WILL I STUDY?

Unit 1: Engineering Design and Graphical Communication	This unit is about the process of designing. You will analyse a client brief, detail production constraints, develop a range of design ideas and choose a final design solution. You will produce engineering drawings of your final design to test it against the original brief and to present information to the client.
Unit 2: Engineering Production	In this unit you will make an engineered product consisting of two different materials. Your teacher will record and mark your performance throughout the task.
Unit 3: Engineering Technology	You will learn about engineering materials and their properties/functions; quality control techniques; new technology used in and by the engineering industries; impact of modern technologies; and engineered products.



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Q. HOW WILL I BE ASSESSED?

There are two controlled assessment tasks each worth 30% and two external examination papers worth 40%.

TYPE OF ASSESSMENT

Unit 1: Engineering Design and Graphical Communication	**Controlled assessment (25 hours)** In this unit you will produce a portfolio under controlled conditions. Your teacher assesses the portfolio and we moderate it.
Unit 2: Engineering Production	**Controlled assessment (25 hours)** You will make an engineered product under controlled conditions. This must include two components of different materials. Your teacher assesses your work and we moderate it.
Unit 3: Engineering Technology	**External assessment (Two 1 hour examinations)** In paper 1 (1 hour) you are tested on your knowledge of the use and impact of ICT; automation; components; modern materials; and control technology; and your knowledge and understanding of products, tools and equipment associated with the engineering industry. Paper 2 (1 hour) is based on pre-release materials. It tests you on your research into a product specified in the pre-release materials.