



Rewarding Learning

GCSE
**Engineering and
Manufacturing**

**STUDENT
GUIDE**

INTRODUCTION

This qualification provides a good foundation if you would like to study engineering and manufacturing related subjects at a more advanced level or go into an engineering and manufacturing apprenticeship.

It encourages you to develop design, computer aided design (CAD) and technical skills, and knowledge and understanding of the engineering and manufacturing industries.

WHY ENGINEERING AND MANUFACTURING?

The following are important features of this qualification.

- It allows you to develop transferable skills, which will benefit you in vocational training and employment.
- It makes you aware of creative, engineering and manufacturing industries.
- It encourages you to be creative and innovative, and to be prepared to take design risks.

UNIQUE FEATURES OF THIS QUALIFICATION?

Our qualification is the only GCSE Engineering and Manufacturing qualification available.

Focusing on practical engineering and manufacturing skills, the qualification takes a hands-on approach that relates directly to the engineering and manufacturing industries.

It provides a good foundation for progression to apprenticeships or further education.



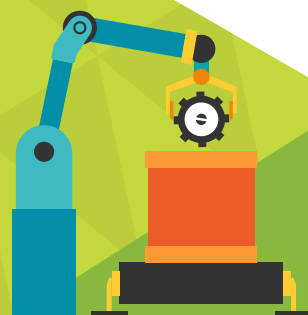
WHAT WILL I STUDY?

UNIT	AREA OF STUDY
Unit 1: Design	Controlled assessment Design portfolio You complete one task in response to one design brief (from a choice of two).
Unit 2: Production	Externally assessed practical examination 3 hours Manufactured product You complete one task in response to one assignment under examination conditions.
Unit 2: Materials, Processes and Systems	External written examination 2 hours You answer five questions in Section A, which is based on pre-release material. You answer six questions in Section B.



Unit 1
Design

25%



Unit 2
Production

25%



Unit 3
Materials, Processes
and Systems

50%

WHAT SKILLS WILL I DEVELOP?



It offers you opportunities to continue to develop the Cross-Curricular Skills and the Thinking Skills and Personal Capabilities. This is achieved through Using ICT, Using Maths, Communication, Self-Management, Working with Others and Problem Solving related to GCSE Engineering and Manufacturing. Examples of how these will be developed are detailed in the qualification.

WHAT CAN I DO WITH A QUALIFICATION IN ENGINEERING AND MANUFACTURING?

With this qualification, you can progress to a GCE in Technology and Design or to further and higher education, where you can complete many qualifications and apprenticeships in, for example, electrical and electronic engineering, electrical installation, mechanical engineering, fabrication and welding engineering, or mechatronics.

Engineers also work with other professionals in areas such as finance and health and safety. To become a manufacturing engineer, you will typically be required to have a degree. You may also be able to enter the career at trainee level through and apprenticeship programme and/or with an engineering HND or foundation degree. With experience and further qualifications, you will then be able to progress to more senior roles.

More information can be found at:

www.prospects.ac.uk/job-profiles/manufacturing-engineer

www.citb.co.uk/

www.src.ac.uk/courses/skills-training/tfs-and-apprenticeships-ni-courses

www.belfastmet.ac.uk/course-search/?courseAttendanceMode=Full-time&keywords=engineering&orderByColumn=level&orderByDirection=ascending

www.swc.ac.uk/

www.nrc.ac.uk/

www.nwrc.ac.uk/

