

# GCSE ENGINEERING AND MANUFACTURING SNAPSHOT

## OVERVIEW

The following are important features of this specification.

- It allows students to develop transferable skills that will benefit them in vocational training and employment.
- It makes students aware of engineering and manufacturing industries.
- It has broad cross-curricular links.
- It has only three units of assessment.
- It provides students with a broad background to, and core knowledge of, the engineering and manufacturing industries.
- It encourages students to develop design, computer aided design (CAD) and technical skills, and knowledge and understanding of the engineering and manufacturing industries.
- It allows students to develop as effective and independent learners.

## SPECIFICATION SUMMARY

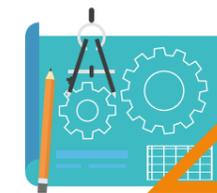
Students have to complete **three** units to gain a GCSE in Engineering and Manufacturing. There are **two** external examinations: one written examination lasting 2 hours and one practical examination lasting 3 hours. There is one controlled assessment.

Of the three units:

- **Unit 1** is the controlled assessment, which asks students to complete a design portfolio.
- **Unit 2** is the externally assessed practical examination; students must manufacture the product from the technical drawings supplied in 3 hours.
- **Unit 3** is the written exam; containing 11 questions, this examination includes pre-release material.

## BENEFITS TO STUDENTS

- It encourages students to develop and practise key transferable skills and adopt a positive attitude to sustainable engineering and manufacturing techniques.
- It provides students with a broad background to, and core knowledge of, engineering and manufacturing industries.
- It provides students with a good foundation for progression to apprenticeships or further education.



## CROSS-CURRICULAR SKILLS, THINKING SKILLS AND PERSONAL CAPABILITIES THAT WILL BE DEVELOPED

The specification builds on the learning experiences from Key Stage 3 as required for the statutory Northern Ireland Curriculum. It also offers opportunities for students to contribute to the aim and objectives of the Curriculum at Key Stage 4, and to continue to develop the Cross-Curricular Skills and the Thinking Skills and Personal Capabilities.

The extent of the development of these skills and capabilities will be dependent on the teaching and learning methodology used.

The specification includes details of these skills and capabilities, along with specific examples of links to Using ICT, Using Mathematics, Communication, Self-Management, Working with Others and Problem Solving.

## UNIQUE FEATURES OF THIS SPECIFICATION/IMPROVEMENTS MADE

Legacy Specification	Revised Specification
Two controlled assessment units	One controlled assessment unit
Controlled assessment worth 60%	Controlled assessment worth 25%
Examination worth 40%	Examination worth 75%
Two written examinations	One written examination
Two specifications	One specification

The revised specification also has a greater focus on practical engineering and manufacturing skills and content.

## CONTENT AND ASSESSMENT\*

CONTENT	ASSESSMENT	WEIGHTING	AVAILABILITY
<b>Unit 1: Design</b>	Controlled assessment Design portfolio Students complete one task in response to one design brief (from a choice of two).	25%	Summer 2018
<b>Unit 2: Production</b>	Externally assessed practical examination 3 hours Manufactured product Students complete one task in response to one assignment under examination conditions.	25%	Summer 2019
<b>Unit 3: Materials, Processes and Systems</b>	External written examination 2 hours Students answer five questions in Section A, which is based on pre-release material. Students answer six questions in Section B.	50%	Summer 2019

Students must take at least 40 percent of the assessment (based on unit weightings) at the end of the course as terminal assessment.

\*The information in this table is still subject to regulatory approval.

## SUPPORTING YOU

The following resources are available to support this specification:

- our Engineering and Manufacturing microsite at [www.ccea.org.uk](http://www.ccea.org.uk) and
- specimen assessment materials.

We intend to provide:

- past papers;
- mark schemes;
- Chief Examiner's reports;
- Principal Moderator's reports;
- guidance on progression from Key Stage 3;
- planning frameworks;
- centre support visits;
- support days for teachers; and
- a resource list.

## CONTACT US

If you have a query or require advice or guidance, please contact:

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# SPECIFICATION SNAPSHOT



For first teaching from September 2017  
For first assessment in Summer 2018  
For first award in Summer 2019

# GCSE Engineering and Manufacturing