

GCSE Engineering

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Course Outline:

Externally Assessed: Written Exam Paper

In the external assessment, the subject content is split into six sections, which includes Engineering Materials, Manufacturing Processes, Systems, Testing and Evaluation, The Impact of Modern Technologies and Practical Engineering Skills. The subject content will be taught within a range of realistic contexts based around major themes.

Non-Exam Assessment: Practical Engineering (Approximately 30 hours)

A single design and make engineering activity, which should consist of a working prototype and concise portfolio. The portfolio will show evidence of investigation, analysis and evaluation throughout. This is a practically based assessment where knowledge of the externally assessed content is applied to the design and make of the prototype.

Skills/attributes developed/required:

The engineering course combines theoretical content with practical application. There is an in-depth knowledge required across materials and systems.

The use of mathematical skills is a key requirement, and is tested in the examination (20% of the written paper) therefore students will need to have a predicted grade of 5 in Maths and 4 in English. An understanding of underlying scientific principles is expected.

Furthermore, the development of practical engineering skills is central to the non-examined assessment unit (40%).

Examination Information

Exam Board: AQA

Exam: 60% written exam and 40% non-exam assessment

Course Outline: Externally Assessed/Written Exam (60%): 2 hours / 120 Marks.

Consists of: multiple choice questions assessing breadth of knowledge; short answer questions assessing in depth knowledge, including calculations; multiple choice questions related to the application of practical engineering skills; and extended response questions drawing together elements of the specification.

Non-Exam Assessment/Practical Engineering (40%): Approximately 30 Hours / 80 Marks (portfolio)

Consists of: application of skills, knowledge and understanding in a practical context; engineering drawings or schematics to communicate a solution to the brief; and an engineering prototype that solves a problem.

Where can it take me?

Next Steps: To continue to Product Design at A Level.

Future career opportunities that this subject may lead to: Civil and Structural Engineering, Product Design, Electrical Engineering, Programmer, Automotive Industries, Construction and Project management

What Key Skills will I gain by taking Engineering?

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|---|--|
| <input checked="" type="checkbox"/> Analysing | <input checked="" type="checkbox"/> Independent Learning |
| <input type="checkbox"/> Communication - Verbal | <input type="checkbox"/> Independent Thinking |
| <input checked="" type="checkbox"/> Communication - Written | <input type="checkbox"/> Listening Skills |
| <input checked="" type="checkbox"/> Creative Thinking | <input type="checkbox"/> Presentation Skills |
| <input type="checkbox"/> Debating | <input checked="" type="checkbox"/> Problem Solving |
| <input type="checkbox"/> Decision Making | <input type="checkbox"/> Reading |
| <input checked="" type="checkbox"/> Evaluating | <input checked="" type="checkbox"/> Research |
| <input checked="" type="checkbox"/> Hands-On / Technical Skills | <input type="checkbox"/> Team Work |