GCSE Engineering – Y9 Transition

Engineering is a broad subject which splits into many different disciplines, including chemical, civil, mechanical, and electrical engineering. Engineering graduates are often logical thinkers with excellent numerical and problem-solving skills. The careers open to engineering graduates are wide and varied, although you may wish to choose the career most relevant to your engineering specialization and related skills. This may require extra studying and work experience; if you'd like to become a chartered engineer, for example, you will need to take a postgraduate course (MEng) and gain professional experience.

Engineers tend to be clear thinking and logical. They can follow either instructions or design specifications to the letter. They can take on a lot at once, are prepared for a challenge, aren't afraid of long hours and work hard to gain good results.

It's an engineer's job to fix complex problems, improve and innovate so no matter your discipline all engineering careers are exciting. Engineering is one of the country's broadest sectors and produces most of the UK's exports.

<table>
<tr><td>Preparation</td><td colspan="2">Most services and products in the world are brought to life through engineering. They are the problem solvers of the world and help shape our future and make a real difference to how we live our lives. If you want to work at the forefront of global development, read up on how to become an engineer.
Websites for further information:

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Subject specific:
The Centre Lathe (technologystudent.com)
How to use a Knurling Tool (technologystudent.com)
The Vertical Miller (technologystudent.com)
The Digital Vernier Caliper (technologystudent.com)
Health and Safety (technologystudent.com)
poster_plastics1 (technologystudent.com)
Research - Metals (technologystudent.com)</td></tr>
<tr><td>Overview of course</td><td colspan="2">The final grade is divided as follows:
60% - Final 2-hour exam (Core Content)
40% - Non-Examined Assessment (NEA) - completed in school.
The core content is divided into 6 sections:
1. Engineering materials
2. Engineering manufacturing processes
3. Systems
4. Testing and investigation
5. The impact of modern technologies
6. Practical engineering skills</td></tr>
<tr><td>Short term focus: Term 1</td><td colspan="2">In the September of Y10 you start with Section 1 – Engineering Materials. There are different categories of materials, such as metals, polymers, and composites; and within each individual category, the different materials have unique combinations of properties, which make them the best for different applications.</td></tr>
<tr><td>Careers & Suitability</td><td>This course will suit you if you have:
Higher level Designing and Problem-solving skills
High level of independent learning ability
Foundation Computer science ability
Higher level Maths ability
Higher Level Physics Ability
Higher level Exam ability (60% final grade, no resit)</td><td>Careers:
Design Engineer
Structural Engineer
Electrical Engineer Engineering Management
Civil Engineer
Chartered surveyor
Mechanical Engineering
Architect
Quantity Surveyor</td></tr>
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