



Engineering

Wales High School - Year 9 Subject Options

Subject Content - What will you be doing?

The GCSE in Engineering is a single option made up of 6 key areas. After initial lessons introducing the subject and developing workshop and CAD skills, learning will be targeted towards these.

1. Engineering materials
Knowledge, understanding and practical experience of the different materials used in Engineering, their properties, uses and behaviours.
2. Engineering manufacturing processes
Knowledge, understanding and practical experience of the different processes and techniques used in Engineering manufacturing and how to select one for a task.
3. Systems
Understanding and potential uses of mechanical, electrical, electronic, structural and pneumatic systems in an Engineering context. Input, process and output descriptions.
4. Testing and investigation
Understanding and practical applications of physical and CAD modelling, Engineering calculations and testing and the basics of aerodynamics within design.
5. The impact of modern technologies
Understanding of the use of new/emerging technologies and the wider impact of Engineering industries, along with the ability to discuss and explain examples of these.
6. Practical engineering skills
Drawing on the knowledge and understanding from 1-5 to apply practical skills to solving a problem. Skills include CAD/CAM, production planning, materials/process selection and use, quality control and assurance and product testing.

Key Points about the Subject

This course is the ideal way for able students to access L3 Engineering at WHS. This could lead students directly to University or down the Degree apprenticeship route in the future.

The course is assessed by a written paper (60%) and a non-examined assessment design and make activity (40%). They both need students to demonstrate, apply and evaluate the knowledge, understanding and experience of areas 1-6.

This course is about modern engineering and the understanding of product development and materials technology. You will develop practical skills during making tasks and transferable skills in other tasks. You will become proficient in the use of CAD. For this course, it helps if you have a good interest in Maths and Science and an interest in how and why things work and are made. Full course details can be found at aqa.org.uk/engineering

Who can I speak to for more information?

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