



Engineering Science

Engineering Science enables learners to apply knowledge and understanding of key engineering facts and ideas, and to understand the relationships between Engineering, Mathematics and Science. The course will develop a range of technological skills, including skills in analysis and problem solving, design skills, skills in the use of equipment and materials, and skills in evaluating products and systems.

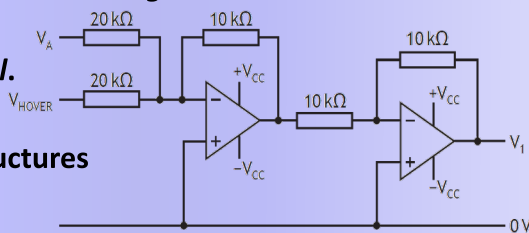
Course Structure:

The Course enables learners to develop and extend a range of technological skills, including skills in analysis and problem solving, design skills, skills in the use of equipment and materials, and skills in evaluating products and systems. More specifically, pupils will:

- **Extend and apply knowledge and understanding of key engineering concepts, principles and practice.**
- **Understand the relationships between engineering, mathematics and science.**
- **Apply analysis, design, construction and evaluation to a range of engineering problems with some complex features.**
- **Communicate engineering concepts clearly and concisely, using appropriate terminology.**
- **Develop a greater understanding of the role and impact of engineering in changing and influencing our environment and society.**

As well as an **Engineering Assignment**, the course includes three main core units of work:

1. **Engineering Contexts & Challenges.**
2. **Electronics & Control.**
3. **Mechanisms and Structures**



Careers & Opportunities:

Engineering Science leads onto, and is a preferred entry qualification for, degree courses in most engineering disciplines such as:

Electrical
Electronic
Structural
Civil
Mechanical
Energy
Environmental
Sound
Aerospace
Agricultural

Many other courses and careers in areas such as the sciences, maths, ICT and product design will involve, or are supported by, elements that are covered within the Engineering Science course.



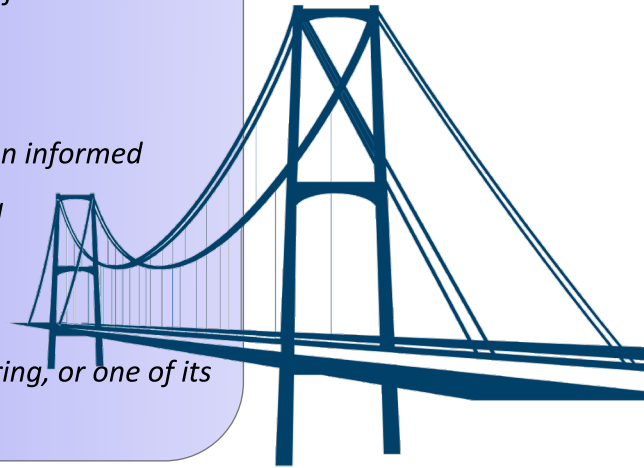
Engineering

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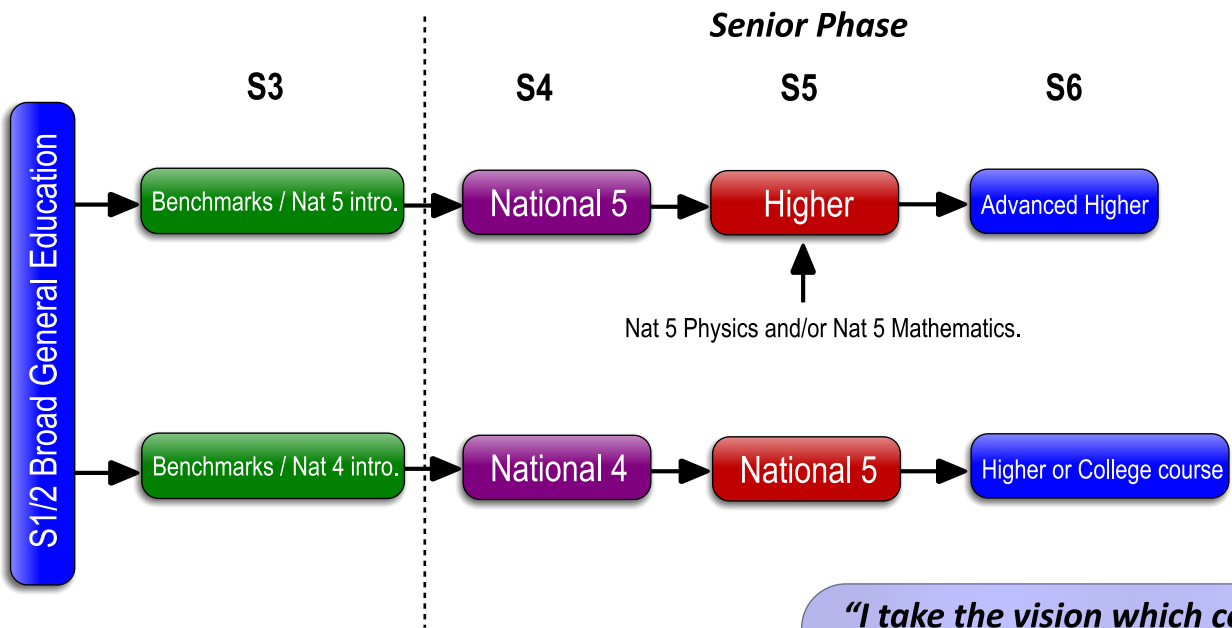
Course information:

Engineering is vital to everyday life; it shapes the world in which we live and its future. Engineers play key roles in meeting the needs of society in fields which include climate change, medicine, IT and transport.

Our society needs more engineers, and more young people with an informed view of engineering. The Course provides a broad and challenging exploration of engineering. Because of its focus on developing transferable skills, it will be of value to many learners, and particularly beneficial to learners considering a career in engineering, or one of its many branches.



The Learner Journey for Engineering Science



"I take the vision which comes from dreams and apply the magic of science and mathematics, I am an Engineer, I serve mankind, by making dreams come true."

Higher - Engineering Science