

Year 11 Engineering



GCSE Engineering is an academic style engineering course perfect for students who may wish to study an engineering course Post 16 and on to university. GCSE Engineering introduces students to a host of new technologies, helping them to gain practical skills and understanding to inspire a lifelong interest in engineering. It will particularly appeal to those who enjoy being creative, with an affinity for drawing, design, maths and problem-solving. Students will learn about how to create design briefs, how businesses convert design briefs to design specifications, production planning and the application of technology to manufacturing. The engineering industry is vast and varied and there are many different businesses students could potentially work for within it.

Methods of deepening and securing knowledge:

Retrieval practice	Theory and practical sessions are used as opportunities to revisit prior learning. Before students embark on any new project, they are reminded of the links to the key theory covered in the course. Students will frequently revisit theory and skills they have used in previous tasks, building knowledge through questioning and further application of tasks. The practical work itself allows students to apply their prior learning in real-life contexts, which helps to secure students' understanding.
Elaboration	Through exciting new projects students are able to elaborate on new making methods and techniques to extend skills further.
Concrete examples	Demonstrations are used to consolidate understanding of processes and techniques.
Knowledge organisers	Knowledge organisers are used to inform students of the skills and techniques used throughout the project and develop research skills needed in the tasks.

	Autumn term 1	Autumn term 2	Spring term 1
Topic(s)	NEA, theory and exam preparation.	NEA interspersed with theory.	NEA interspersed with theory.
Assessment	Understanding NEA assessment criteria for each stage, applying this to guide NEA working and questions leading to the trial examination. NEA Problem solving	Understanding assessment criteria and questions leading to the trial examination. NEA and Mock Production planning	Understanding NEA assessment criteria for each stage, applying this to guide NEA working and questions leading to the trial examination. NEA

CEIAG <i>(Careers that are linked to that topic)</i>	Drawings and conventions Applying systems technology	Engineering skills used	Testing and evaluating Revision Using google classrooms and revisions documents/knowledge organisers
	Example jobs might include: <ul style="list-style-type: none"> ● Plant process operative ● Mechanical fitter ● Maintenance worker ● Electrical, mechanical, chemical and civil engineering 	Example jobs might include: <ul style="list-style-type: none"> ● Plant process operative ● Mechanical fitter ● Maintenance worker ● Electrical, mechanical, chemical and civil engineering 	Example jobs might include: <ul style="list-style-type: none"> ● Plant process operative ● Mechanical fitter ● Maintenance worker ● Electrical, mechanical, chemical and civil engineering

	Spring term 2	Summer term 1	Summer term 2
Topic(s)	Theory and examination revision.	Theory and examination revision.	
Assessment	Through examination modelling of answers and student response to identified areas of need.	Through examination modelling of answers and student response to identified areas of need.	Final external examination and moderated NEA.
CEIAG <i>(Careers that are linked to that topic)</i>			

Independent Study

Students in Year 11 have access to the course materials through Google Classroom. Independent study is accessible through this platform and is given either each week or once a fortnight. Independent study is generally used to secure prior learning through practice to develop confidence and memory.