

Curriculum Overview – Engineering

Year	Overview	KS3 Rotation based on 13 hours of study	Student Resources
7	Students to become familiar with working safely in the workshop. Students need to be able to identify tools and work safely on a range of materials. Students will also develop design pages.	<p>Simple flat shape of my own – CET SOL Identifying SL of a design page and tools in the workshop. Development of design pages. Safe working in the workshop. Development of techniques with tools and materials.</p> <p>Your pattern in relief – CET SOL Identifying SL of a design page and tools in the workshop. Development of design pages. Safe working in the workshop. Development of techniques with tools. Development of machines in the workshop.</p>	www.technologystudent.com
		<p style="color: purple;">CET Assessment covering all above topics</p>	
8	Students to gain a deeper knowledge of working within the workshop. Use of CAD CAM is also developed in this year to deepen students understanding of the engineering industry.	<p>A symbol – CET SOL Designing skills 2D Design CAD software Laser cutter CAM software Pewter machine Metal work skills</p> <p>Performance OF CAD/CAM – CET SOL Orthographic drawing on paper 2D Design Orthographic drawing CAD Google sketup skills CAD Tinker cad designing 3Dprinting</p>	www.technologystudent.com
		<p style="color: purple;">CET Assessment covering all above topics</p>	
9	Year 9 students will look at processes in an engineering environment. Students will learn to use all the machines in the workshop and begin to undertake larger practical's taking on more of a independent role.	<p>Students will work on – Pillar drills/Bench drills Line bender Hot works area Pewter machine Vacuum former 3 in 1 metal manipulator Ban facer Powder coating</p>	www.technologystudent.com
		<p style="color: purple;">CET Assessment covering all above topics</p>	

Key Stage 3 End of rotation testing

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Year	Overview	Autumn 1 (Weeks 1 – 7)	Autumn 2 (Weeks 8 – 14)	Spring 1 (Weeks 15 - 20)	Spring 2 (Weeks 21 - 25)	Summer 1 (Weeks 26 - 32)	Summer 2 (Weeks 33 - 38)	Student Resources	
10	<p>Year 10 students gain an over all knowledge of engineering. From engineering disciplines and H+S to different materials used in an engineering industry.</p> <p>In the summer term students put this knowledge together and produce a mock controlled assessment in practice for their real one in year 11.</p>	<p>Core content taught</p> <ul style="list-style-type: none"> • Engineering disciplines • Applied science and mathematics in engineering • Reading engineering drawings • Hand-drawn engineering drawings • Computer-aided design (CAD) engineering drawings 	Key Stage 4 Formal Assessments – Classroom Based	<p>Core content taught</p> <ul style="list-style-type: none"> • Properties, characteristics and selection of engineering materials • Engineering tools, equipment and machines • Applied processing skills and techniques • Production planning techniques 	Key Stage 4 Formal Assessments – Classroom Based	<p>Mock controlled assessment in preparation for controlled assessment in year 11. Using skills learnt in term one and two.</p>		Year 10 Mock Examinations	<p>Flash cards www.technologystudet.com</p>
		<p>Summative assessment – End of topic tests based on past exam questions.</p>		<p>Summative assessment – End of topic tests based on past exam questions.</p>		<p>Summative assessment – End of topic tests based on past exam questions.</p>			
11	<p>Students in year complete their mock assessment and identify ways their process could be improved.</p> <p>Student them complete their controlled assessment and revise for the written paper.</p>	<p>Mock controlled assessment in preparation for controlled assessment in next term.</p> <p>Revision for exam unit.</p>	Year 11 Mock Examinations A – Classroom based / Exam room	<p>Intro into coursework</p> <p>Completion of 18H coursework</p> <p>Teaching time splitting up 18H formal to boost coursework outcome.</p>	Year 11 Full Mock Examinations – Examination Rooms	<p>Completion of 18H coursework</p> <p>Teaching time splitting up 18H formal to boost coursework outcome.</p> <p>Exam Revision</p>	Year 11 Mock Examinations A – Classroom based / Exam Room	GCSE Examination Window	<p>Flash cards www.technologystudet.com</p>
		<p>Summative assessment – End of topic tests based on past exam questions.</p>		<p>Summative assessment – End of topic tests based on past exam questions.</p>		<p>Summative assessment – End of topic tests based on past exam questions.</p>			