

Year 11 BTEC ENGINEERING

Overall Intent:

In Year 11, Engineering students will complete 2 internally assessed tasks, in the classroom, but under exam conditions. Students will use the skills and experience gained in Y10 to build a 'product' set by the exam board by interpreting the engineering drawing provided, select tools and materials, then produce their own prototype. Students will then produce a redesign for an aspect of the device, as determined by the exam board. The final aspect the qualification will be a terminal exam.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics/area of study	Unit 1 – Manufacturing engineering products		Unit 2 – Designing engineering products	Unit 3 – Solving engineering problems		
				Preparation for terminal exam		
Key learning aims – knowledge and skills	<p>This unit introduces learners to interpreting different types of engineering information in order to plan how to manufacture engineered products.</p> <p>Learners will develop the skills needed to work safely with a range of engineering processes, equipment and tools. With these skills, learners will acquire knowledge of a range of engineered processes that are fit for purpose for manufacturing an end product.</p> <p>Finally, learners will learn how to test the final product against the information given in the technical information to ensure that they have met the given standards of the assigned brief</p>		<p>This unit allows learners to experience and gain understanding of how an engineered product is adapted and improved over time.</p> <p>The unit is linked to the engineering product manufactured during Unit 1 of the course.</p> <p>It will require the learner to work to a given brief to adapt an existing component, element or part of the engineering outcome that they manufactured for Unit 1</p>	<p>This unit introduces learners to how engineering design is impacted by a range of external considerations such as the properties of materials, both traditional and smart developing materials, as well as methods of manufacturing in both the traditional and new and emerging technologies.</p> <p>The unit also gives the learner the opportunity to explore how engineering achievements have had an impact on modern day life at home, work and in society in general. Finally, the unit allows learners to develop understanding and skills to assist them in the solving of engineering problems.</p> <p>Students will revise theory from previous components and will use practice exam practicals and papers to aid revision.</p>		

Assessment	Internal assessment of logbook	Internal assessment of logbook	Externally assessed exam. Internally set and externally assessed workshop task.
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