

# NCFE Level ½ Technical Award in Engineering Curriculum Intent Y11

	Autumn Term		Spring Term		Summer Term	
	1 September- October	2 November- December	1 January- February	2 February- March	1 April- May	2 June-July
<b>Key Concepts</b>	8. Production planning techniques	9. Applied processing skills and techniques	NEA		Exam	
<b>Knowledge &amp; Understanding</b>	8.1 The learner will understand how to plan a manufacturing task safely and on time.	9.1 The learner will understand a range of processing skills and manufacturing techniques – preparing, modifying, joining and finishing techniques applied to materials for a manufacturing task. The learner will understand the safe and correct use of tools, equipment and machines.	Synoptic assessment requires learners to combine elements of their learning and show accumulated knowledge and understanding across the qualification content. It enables learners to evidence their capability to integrate and apply knowledge, understanding and skills gained with breadth and depth in context.		Review of theory elements of the course, in preparation for their final exam	Review of theory elements of the course, in preparation for their final exam
<b>Assessment</b>	End of topic assessment	End of topic assessment	NEA		Moderation of coursework Revision for Exam	NCFE- External Engineering Exam
<b>Why this? Why now?</b>	This unit provides learners with a broad and indepth knowledge base providing the opportunity to explore the engineering sector. The learner will be		Students NEA is released in September of Year 11. The NEA covers all AOs on the exam, so once all exam preparation has been covered students will start their NEA. It will allow for application of knowledge and understanding.			This method of external assessment requires learners to

	<p>required to apply knowledge and understanding through a mandatory assessment which will be sat at the end of Year 11. Students will also have a mock in Year 10.</p>		<p>apply theory and concept from knowledge based learning outcomes in context to show knowledge and understanding of the subject at the appropriate level. The examination will allow for application of knowledge and understanding from across the units and combines content to develop holistic connections.</p>
<p><b>Skills &amp; Characteristic</b></p>	<p>Commitment, effective communication and interpersonal skills, observation skills, professionalism, problem-solving skills, teamwork, reflective practitioner, marking, measuring., Independence, Retention, Application, Knowledge, Understanding, Evaluation</p>		
<p><b>Aspirations &amp; Careers</b></p>	<p>Tradesman: Electrician, Plumer, Joiner, Builder. Engineer: Materials, Civil, Automotive, Design, Chemical, Clincail, Games Designer, Graphic Designer, Product Designer, Construction Manager CAD Technician, Secondary School Teacher, Data Analysis</p>		

<b>Engineering</b>			
<b>Year Group</b>	<b>Basic (Lower Ability End Points) Level 1 Pass</b>	<b>Clear (Middle Ability End Points) Level 2 Pass</b>	<b>Detailed (Higher Ability End Points) Level 2 Distinction</b>
<b>10/11</b>	<ul style="list-style-type: none"> <li>Recall and apply some knowledge and understanding, in a limited manner, that has some relevance and limited detail of engineering disciplines, science and mathematics in engineering drawings, properties and characteristics of engineering materials, tools and machinery, hand-drawn and CAD drawn engineering drawings, product planning techniques and applied skills and techniques</li> <li>Analyse and evaluate to make adequate judgements, with some reasoning and reach straightforward conclusions on engineering disciplines, science and mathematics in engineering drawings, properties and characteristics of engineering materials, tools and machinery, hand-drawn and CAD-drawn engineering drawings, product planning techniques and applied skills and techniques</li> <li>Safely and effectively demonstrate a limited level of skills, techniques and processes relevant to engineering when using a wide range of tools and equipment to implement a production plan, applying skills and</li> </ul>	<ul style="list-style-type: none"> <li>Recall and apply mostly relevant knowledge and understanding in a mostly detailed manner of engineering disciplines, science and mathematics in engineering drawings, properties and characteristics of engineering materials, tools and machinery, hand-drawn and CAD-drawn engineering drawings, product planning techniques and applied skills and techniques</li> <li>Analyse and evaluate to make mostly reasoned judgements and reach coherent conclusions on engineering disciplines, science and mathematics in engineering drawings, properties and characteristics of engineering materials, tools and machinery, hand-drawn and CAD-drawn engineering drawings, product planning techniques and applied skills and techniques</li> <li>Safely and effectively demonstrate mostly relevant skills, techniques and processes relevant to engineering when using a wide range of tools and equipment to implement a production plan,</li> </ul>	<ul style="list-style-type: none"> <li>Recall and apply highly relevant knowledge and understanding in a highly comprehensive manner of engineering disciplines, science and mathematics in engineering drawings, properties and characteristics of engineering materials, tools and machinery, hand-drawn and CAD-drawn engineering drawings, product planning techniques and applied skills and techniques</li> <li>Analyse and evaluate to make reasoned judgements and reach well-supported conclusions on engineering disciplines, science and mathematics in engineering drawings, properties and characteristics of engineering materials, tools and machinery, hand-drawn and CAD-drawn engineering drawings, product planning techniques and applied skills and techniques</li> <li>Safely and effectively demonstrate highly relevant skills, techniques and processes relevant to engineering when using a wide range of tools and equipment to implement a production plan, applying skills and</li> </ul>

	<p>techniques to a complex engineering piece</p> <ul style="list-style-type: none"><li>• Analyse and evaluate their own demonstration of relevant skills, techniques and processes applicable to the sector when planning and preparing completed engineering pieces in a reasonable, straightforward manner, with limited detail</li></ul>	<p>applying skills and techniques to a complex engineering piece</p> <ul style="list-style-type: none"><li>• Analyse and evaluate their own demonstration of relevant skills, techniques and processes applicable to the sector when planning and preparing completed engineering pieces in a mostly detailed manner</li></ul>	<p>techniques to a complex engineering piece in a highly comprehensive manner</p> <ul style="list-style-type: none"><li>• Analyse and evaluate their own demonstration of relevant skills, techniques and processes relevant to the sector when planning and preparing complex, completed engineering pieces in a highly comprehensive manner</li></ul>
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