

## Year 11 NCFE LEVEL 1/2 TECHNICAL AWARD IN ENGINEERING.

This qualification is designed for learners who want an introduction to engineering that includes a vocational and project-based element. The course is designed to provide learners with the skills, knowledge and understanding of the applied study of good engineering practices and an understanding of working in the sector. The qualification will appeal to learners who wish to pursue a career in the engineering sector or progress onto further study.

### Methods of deepening and securing knowledge:

<b>Retrieval practice</b>	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.
<b>Elaboration</b>	Through exciting new projects students are able to elaborate on new making methods and techniques to extend skills further.
<b>Concrete examples</b>	Demonstrations are used to consolidate understanding of processes and techniques.
<b>Knowledge organisers</b>	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
<b>Topic(s)</b>	<b>Synoptic project and exam resits</b> <b>LO1 Produce hand drawn engineering drawings</b>  1.1 Engineering drawings 1.1.1 A freehand sketch 1.1.2 An A3 hand drafted isometric drawing sheet 1.1.3 An A3 hand drafted orthographic drawing sheet	<b>Synoptic project and exam resits</b> <b>LO2 produce Computer Aided Design (CAD) engineering drawings</b>  2.1 Engineering drawings 2.1.1 An A3 CAD isometric drawing sheet 2.1 Engineering drawings 2.1.2 An A3 CAD orthographic drawing sheet	<b>LO3 Demonstrate production planning techniques</b>  3.2 Production planning 3.2.1 Risk Assessment 3.2.2 Production plan <ul style="list-style-type: none"> <li>• Tools and equipment</li> <li>• Health and safety</li> <li>• Quality control</li> <li>• Flow chart symbols</li> <li>• Time plan</li> </ul>
<b>Assessment</b>	Assessment by end of unit test and ongoing	Assessment by end of unit test and ongoing	Assessment by end of unit test and ongoing

	assessment.	assessment.	assessment.
CEIAG (Careers that are linked to that topic)			

	Spring term 2	Summer term 1	Summer term 2
Topic(s)	<b>LO4 Demonstrate processing skills and techniques applied to materials for a manufacturing task equipment</b>  4.1 Skills and techniques 4.1.1 Prepare materials Cleaning, marking out 4.1.2 Modify shape and size of materials Cutting, drilling, bending, casting, CAM 4.1.3 Join materials Riveting, gluing, bolting, soldering 4.1.4 Finish materials Filing, sanding, polishing, applying a surface finish	<b>LO4 Demonstrate processing skills and techniques applied to materials for a manufacturing task equipment</b>  4.2 Safe and Correct use of Tools, Equipment and Machines 4.2.1 Preparation and use 4.2 Control measures  Testing and evaluating	
Assessment	Assessment by end of unit test and ongoing assessment.	Assessment by end of unit test and ongoing assessment.	
CEIAG (Careers that are linked to that topic)			

### 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.

