|  |
| --- |
| **Y10 & Y11 Autumn Term: Level 2 1st Certificate in Engineering Board: EAL**  |
| **Key Topics** | **Exam Dates** | **Controlled Assessment** | **What the student needs to do:** |
| **[1]** Engineering Environment Awareness - **Theory** Health & Safety requirements The role of the Employer The role of the Employee How an Engineering Organisation functions**[2]** Fitting and Assembly Techniques - **Practical** Safety in the workshop. Names & uses of bench tools. Operation of a Pillar drill. | (Dates to be determined) | [1] Internal School based Unit 1 assessment.[2] External Online Unit 1 assessment.[3] Engineering Activity ‘Moving a load’ | Understand how Engineering works in a real life situation.Complete a test set in school based on their theory lessons.Complete an on-line multiple answer test relating to the theory lessons.Complete a group activity looking at safe movement of heavy loads.Show a responsible and dedicated approach to workshop activity. |
| **[3]** Engineering Techniques  - **Theory** Technical drawing techniques Presentation drawings Applications of IT and ICT in Engineering **[4]** Fitting and Assembly Techniques - **Practical** Methods of holding work Measuring and marking out Tolerances & Quality Control | (Dates to be determined) | [1] Internal School based Unit 2 assessment.[2] External Online Unit 2 assessment.[3] Engineering Activity ‘Technical Drawing’ | Build up their knowledge of Technical drawing styles (Orthographic).Complete a test set in school based on their theory lessons.Complete an on-line multiple answer test relating to the theory lessons.Complete a Formal drawing of a set object.Show a high level of accuracy and standards with all aspects of workshop manufacture. |
| **[5]** Engineering Principles - **Theory** Selecting Engineering materials Heat treatment of metals The Science of Engineering**[6]** Fitting and Assembly Techniques - **Practical** Completion of Set Tasks1. Bevel Gauge
2. Drill & Tapping Gauge
3. Fasteners & Fixings Test Piece
 | (Dates to be determined) | [1] Internal School based Unit 3 assessment.[2] External Online Unit 3 assessment.[3] Engineering Activity ‘Metals Research’[4] Bevel Gauge[5] Drill & Tapping Gauge[6] Fasteners & Fixings Test Piece | Investigate properties of metals and the mathematics to work with them.Complete a test set in school based on their theory lessons.Complete an on-line multiple answer test relating to the theory lessons.Complete a Formal drawing of a set object.Complete the two set pieces. |