

Year 11. Topic: Producing Engineering Products - Making AUT 2			Duration: 12 lessons	Composite:
Key vocabulary:	Core Components		Powerful knowledge components crucial to commit to long term memory	Links to previous and future topics
Measuring, marking, cut, shaping, forming, spray painting, dip coating, Tube, bar, sheet Taping, Brazing Vacuum Forming Assembly Milling machine (parallels, zeroing, x/y/z axis, feed rate cutting rate) Centre Lathe (facing off, turning, auto traverse, knurling, micrometre).	<p>Must be able to use the following safely, and accurately in a workshop</p> <ul style="list-style-type: none"> • Milling machine • Centre Lathe • Selection of metal working hand tools • Selection of quality checking tools • Selection of marking out tools • Brazing Hearth • Dip Coating • Vacuum Forming • Spray Booth • Pillar Drill • Gerbil Cutter <ul style="list-style-type: none"> • Must be able to document and record make activities. 		<ul style="list-style-type: none"> • Lathe – What is turning? What is knurling? What is facing off? • Milling – What are the x, y and z axis? What is zeroing knowledge? What are parallels? • How are through and cross filing different? • What is tapping? How do you tap a hole? • What shape are tubes, rods, bars, sheets? • What is tolerance? • What are the names of the tools being used (specific tools)? • What are the names of the machines and equipment being used (specific)? • What is brazing? • How do you spray paint correctly? • How do you dip coat correctly? • How do you vacuum form correctly? • What does a pop riveter do? 	Application of a wide range of core knowledge learnt throughout years 9 and 10.
Impressive reading	Impressive speaking	Impressive writing	Resilience	Employability via:
Reading and understanding learner assignment brief	Taking part in class discussions outside controlled assessment.	Use of keywords and appropriate technical language when writing up record of make.	Being able to make confident appropriate choices when making in the workshop. Find and correct own mistakes and problem solve during the making process	Independent time management. Independent decision making and problem solving Using key skills used by engineers.
SEND				
Key Vocabulary introduced using precision teaching prior to new topic.				
<ul style="list-style-type: none"> • Linked to prior knowledge from year 9 and 10 to aid independence. Repeating of keywords. • Additional curriculum time allocated to those authorised by exam board, to support processing speed. • Project chosen so that work produced can be used at apprenticeship or engineering interviews, work-related to support the pathway into adulthood • Learners asked to complete work that will enable them to get Dist * grade, supporting learner aspirations • Project chosen to support cross curricular links maths and science, supporting non-verbal reasoning • Technology: software (word, powerpoint) used to support accessibility during write up of 'record of make'. • Tasks can be individual broken down to support accessibility • Opportunities for low entry/high ceiling activities (grading from Level 1 to Level 2 Dist *) • Specific support for students if required on individual make tasks, and on transport to Marches to enable accessibility. 				