

OCR National in Engineering Manufacture		
Year 10		Assessment
Cycle 1	Induction, Health and Safety	
	Reading an engineering drawing	
	Risk Assessments	
	Production planning	
	Non-Examined Assessment (NEA) (R015) Workshop and machine risk assessments	30% of the overall grade for the course
	Production plans for the various components	
	Workshop Health and Safety	
	Practical work on rotation to complete each component	
Cycle 2	Workshop-based learning - continuation of the practical elements to be completed for the NEA	
	Description and evaluation of the practical activities	
	Finalisation and submission of the NEA	
	Use of CAD Systems	
	Use of the laser cutter	
	Scales of Production	
Cycle 3	Computer Numerical Control (CNC) operating Procedures	
	Card templates	
	Nesting Analysis	
	Non-Examined Assessment (NEA) R016	30% of the overall grade for the course
	Card template production	
	Interpretation of engineering drawing	
	Export of file for CNC	
	Measuring equipment	
	Quality Assurance and Control	
Year 11	NEA (R015) continuation	30% of the overall grade for the course
Cycle 1	Production planning – stop, shaft and slide for the slide hammer	
	Workshop-based learning - continuation of the practical elements to be completed for the NEA	
	On rotation in the workshop to include the write-up of the practical aspects of the slide hammer	

Cycle 2	Types of manufacturing processes	Theory aspects worth 40% of the overall grade for the course
	Shaping and forming processes	
	Additive manufacturing	
	Joining and finishing processes	
	Mechanical properties of materials	
	Metals and Polymers	
	Ceramics and composite materials	
	Smart materials	
	Interpreting drawings	
	Scales of production	
	Quality control and assurance	
	Lean manufacturing	
	Globalisation	
	Inventory management	
Cycle 3	Focused revision on misconceptions and learning gaps	