

OCR National in Engineering Design		
Year 10		Assessment
Cycle 1	Isometric projection drawings	For the theory element worth 40% of the overall grade for the course
	Rendering materials	
	Orthographic projection	
	CAD Isometric and Orthographic	
	Drawing standards	
	CAD engineering drawings	
	3D models in fusion primitives	
	Full practise project for Communicating Designs	
Cycle 2	Non-Examined Assessment (NEA) R039 Communicating Designs project	30% of the overall grade for the course
	LO1 - Manual production of free hand sketches	
	LO2 - Manual production of free hand sketches: design development	
	LO3 - Production of engineering drawings	
Cycle 3	Use of computer aided design (CAD)	
	Review of NEA	
	Finalisation and submission of the R039 NEA	
	Skills towards R040 NEA - Design, Evaluation and modelling	
	Product disassembly	
	Modelling in card	
	Modelling in whiteboard	
	Sheet modelling, polymer	
	Block modelling, blue foam	
	Sheet modelling polymer	
	Block modelling foam	
	Block modelling balsa wood	
	Bread board modelling	

Year 11		
Cycle 1	Completion of R039 NEA	30% of the overall grade for the course
	Isometric projection drawings	
	Rendering materials	
	Orthographic projection	
	CAD Isometric and Orthographic	
	Drawing standards	
	CAD engineering drawings	
	3D models in fusion primitives	
Cycle 2	The stages involved in design strategies	Theory for exam worth 40% of the overall grade for the course
	Design, make and evaluate	
	Criteria included in an engineering design specification	
	How manufacturing considerations affect design	
	Influences on engineering product design	
	Types of drawing used in engineering	
	Working drawings	
	Using CAD drawing software	
	Methods of evaluating design ideas	
	Modelling methods	
	Methods of evaluating a design outcome	
Cycle 3	Revision	