Hope Valley College Curriculum

Engineering – Key Stage 4 (Years 10 and 11)

Qualification: Level 1/2 Technical Award

Hope Valley College
Chorus Education Trust

	WJEC L1/2 TECHNICAL AWARD IN Engineering 60% NEA 40% EXAM										
10	**INTRO H&S**	**Unit 1 - 1.1 Understanding engineering drawings**		**Unit 1 – 1.2 Planning manufacturing**					**Unit 1 – 1.3 Using engineering tools and equipment**		
	H&S in the workshop	1.1.1 understand engineering drawings, and identify parts and/or components that will enable them to plan a final manufactured product	1.1.2 interpret key engineering information about manufacturing requirements	1.2.1 identify which materials are suitable for manufacturing specific parts of an engineering product and present the information in planning documentation	1.2.2 to identify and select the equipment that is needed for each stage of the manufacture of a product	1.2.3 to identify the tools that are needed for each stages of the manufacture of a product	1.2.4 present their plan of processes, sequencing, equipment, and tool/machine requirements in planning documentation	1.2.5 Contingency planning	1.3.1 develop knowledge, understanding and skills necessary to accurately and safely manufacture an engineering product:	1.3.2 demonstrate safe working practice with a range of engineering equipment.	1.3.3 follow appropriate health and safety procedures when working in engineering workshops
10	**Unit 1 – 1.4 Implementing engineering processes**					**Unit 2 – 2.1 – Understanding function and meeting requirements**					
	1.4.1 apply a range of key engineering processes used in manufacture		1.4.2 know and understand which manufacturing processes and tools are appropriate for different material	1.4.3 understand that successful outcomes require measuring against given crietia	1.4.4 Evaluate own practices and proces ses	2.1.1 identify primary features of the product	2.1.2 be aware of features of other engineered products that may have similar needs to their given brief	2.1.3 explain the functional properties of their design solutions	2.2.1 Generating a range of engineering solutions	2.2.2 Developing ideas through to a conclusion	2.2.3 Communicating design ideas
11	**2.3 Communicating an engineered design solution**			**Unit 3 Solving Engineering Problems (Exam) Unit 1**							
	2.3.1 Producing a manufacturing specification	2.3.2 Drawing an engineering design solution that adheres to recognised standards		3.1.1 Describing engineering developments	3.1.2 Explaining the effects of engineering achievements	3.1.3 Explaining how environmental issues affect engineering applications	3.2.1 Understanding materials, their properties, and their selection for specific purposes	3.2.2 Describe properties required of materials for engineering products	3.2.3 Explaining how materials are tested for properties	3.3.1 Describing engineering processes	3.4.1 Using mathematical techniques for solving engineering problems