	Year 10			Year 11		
	Knowledge and skills	Enrichment	Cross- Curricular	Knowledge and skills	Enrichment	Cross- curricular
Cycle 1	 Introduction to the course and an awareness of the skill set of tradespeople: Designer/ Architect Civil/ structural engineering Contracts Manager and Site Manager Surveyor Quantity Surveyor CIOB, RICS and RIBA – Professional Associations Materials – Timbers and boards: felled logs cut into boards, seasoned to remove excess water. Engineered wood products (EWP) designed to overcome these limitations, including trussed rafters, structural sections and manufactured boards such as plywood and OSB -Oriented Strand Board. Practical skills: Introduction to timber manufacturing to include joints and jigs, appropriate tools and equipment: tenon saw, bench vice, files, bench hook, glass paper and sanding block. HW: 'Teams' quizzes: health and safety, equipment. 'Teams' quizzes: job roles. Production plan for identified practical Research tasks: categories of timber for identified practical tasks. Evaluation of practical skills	Possible visit to Cheltenham College to take part in a Construction Activity.		 Mock Exam of Unit 3- Introduction to planning construction tasks. Collation of tools, equipment, cost and availability that the list of tools should cover all stages of the construction task, including preparation, finishing of materials and disposing of any waste- landfill or recycle? correct use of PPE timescales and order of manufacture. start – hand over date fit for purpose, materials, tools and staffing/availability. Unit 3 – Within the allocated time scale: Interpret technical data, identification of PPE, tools, equipment, techniques and processes, costings. Set success criteria and complete a practical task. Evaluate against success criteria. Ethos and Vision Understanding of the planning and practical skills needed for range of jobs within the sector. A successful outcome of Unit 3 will help secure grade. 	After school support with exam preparation	

	Students learn how to select equipment to mark out and measure, successfully create several timber joints, and make a mitre joint using a jig. They should gain an understanding of the timbers and boards used in the construction industry and the job roles associated within it.		
Cycle 2	 An introduction to the main types of buildings and structures within the sector: Residential and non-residential, roads and bridges. Typical component parts of buildings and structures, including walls, floors and openings. Facilities and systems: Roads, railways, bridges, tunnels, 	 Review and revise previous tropics required for Unit 1. Practical outcomes focus on quality and precision. HW: Ongoing revision for Unit 1. Ethos and Vision Completion of Unit 3 and revision of Unit 1 to secure grades. 	After school upport vith exam
	water supplies and sewage systems, electrical grids, telecommunications. Services, structures, etc. in buildings:		
	 Mechanical systems: lifts, heating, ventilation, air conditioning. Energy supply, lighting and low voltage systems, communication – phones, IT network, fire detection and protection, security and alarm systems. Services that support public health – plumbing for water supply, domestic hot water, drainage of wastewater and stormwater. Energy sources- (avoid finite fuels) solar, wind, heat pumps, water. Braced frames and portal frames. Heritage and traditional methods – masonry, leadwork, blacksmithing, thatching, etc. Avoid damaging nature. 		

 Use recycled bricks, wool instead of fibreglass. 			
HW: Exam question based on theory learnt. Ethos and Vision Understanding of all aspects involved in the construction industry.			

Cycle	The Built Environment Life Cycle:	Opportunity	Unit 1 revision according to assessment of needs.	After school	
3	Materials used in the industry and their	for a	HW:	support	
	source:	practical	Revision for unit 1	with exam	
	Quarrying, Mining, Oil and Gas, Forestry.	task,	Ethos and Vision		
	 Steel – structural steel – made into 	hands on	to secure qualifications		
	standard column and beam sections,	manipulation/			
	Stainless steel – made into fixings and	classification			
	Fastenings. Lightweight steel sections	of the			
	 – lintels, rails and purlins. Profiled 	materials.			
	sheeting – wall and roof cladding.				
	 Copper – Manufactured to building 				
	produce services products – electric				
	cable, gas and water pipes.				
	 Plastic – water pipes. Ormalia di mante and anno ma dura di ta 				
	 Crushed rock – nardcore, reduced to 20mm 				
	2011111. Clay fired to produce brieks				
	 Clay – filed to produce blicks. Compart row materials (limestane) 				
	 Cement - raw materials (innestone) are crushed, blonded and boated 				
	Mortar sand compart and water				
	 Mortal – Sand, Cement and water mixed to a paste to bind and point 				
	building blocks				
	balang blocks.				
	 Hygiene & Safety: to include all PPE 				
	and building regulations.				
	 protect people's safety, health and 				
	welfare in and around buildings				
	 improve conservation of fuel and 				
	power, protect and enhance the				
	environment and promote sustainable				
	development				
	 cover the construction and extension 				
	of buildings				
	 removal of hazardous waste. 				
	HVVK (Teamer's submers of ill beatth				
	leams' quizzes: causes of ill health,				
	เษฐารเสนอก.				
	Ethos and Vision				
	Develop understanding of all aspects of the				
	materials used in the Construction Industry				
	and how to ensure everyone stays safe.				