Construction Unit Overview Year 11

Construction and the Built Environment is a Key Stage 4 only course designed for students who want to learn about the construction industry. Students are introduced to different trades and the range of career opportunities available within the sector. They will begin year 11 with the three controlled assessments which forms 60% of the qualification. Between and after the controlled assessment (unit 3) students will complete the theory section of the qualification (unit 1) that was started in year 10. Students will have access to past papers and will complete 2 full mock exams. At the end of each theory section, students complete an assessment.

This is a standalone KS4 course which does not directly link to KS3 DT. The course is taught in the construction workshop and all controlled assessment is computer based.

CTBE - Year 11 Controlled assessment – Formal Assessment of CA (60%)					
What are we learning?	**Our intention - What knowledge, understanding and skills will we gain?**		**Evaluation and assessment methods**	**Implementation**	**What additional resources are available?**
Unit 3 – Constructing the built environment.	**Knowledge** AO1 Demonstrate knowledge and understanding from across the specification. AO2 Apply skills (including practical skills), knowledge and understanding in a variety of contexts and in planning and carrying out investigations and tasks. AO3 Analyse and evaluate information, making	**Skills** Demonstrate practical skills in three areas: • Carpentry • Electrical • Plumbing In this section learners will gain knowledge, understanding and skills in interpreting a range of technical sources of information, using the symbols, conventions and terminology of: • specifications • building regulations	Detailed controlled assessment PowerPoint. Fully covering all assessment points. Content could include: Situations ·On-site –substructure, superstructure· Off-site –workshop, office, travelling between sites. Effects· Physical· Psychological ·Financial ·Environmental Who is affected· Self· Others working in the area· Employer· Local community· Environment· Users. Risk ·Likelihood ·Severity· How risk is measured.	Recap on safety measures e.g., Signage, fire and working practices. Risk assessments used in KS3 – Basic introduction. Building to industrial RA management.	SOL PPT. Student CA sheets. Primer tasks to start CA. Student CA PPT

	reasoned judgements and presenting conclusions.	• drawings • design briefs. In this section learners will gain knowledge, understanding and skills in planning and organising work that meets specific requirements, including how work is sequenced, planned to meet deadlines and compliant with relevant health and safety practices. In this section learners will gain knowledge, understanding and skills in identifying resource requirements, for the three selected trade areas, to meet design requirements: 3.3.1 tools 3.3.2 equipment 3.3.3 personal protective equipment (PPE) 3.3.4 materials based on characteristics, qualities, sustainability, and limitations. In this section learners will gain knowledge, understanding and skills in calculating the materials required to complete construction tasks that meet design requirements, in relation to:	Control measures· Method statements· Safe systems of work· Work permits· Competent persons· PPE. Situations ·Locations ·Changes in work practice ·Equipment ·Scale Individual/business responsibilities. Security ·Of tools and equipment ·Personal belongings ·Sensitive information. Measures ·Used by employees· Used by employers. Accurately interprets required technical information from more than one type of source. Plans a detailed sequence of work which meets the requirements of the sources of information. The plan is mainly logical, showing knowledge of the processes to be followed and appropriate timescales. Comprehensively identifies and specifies all resources required to complete construction tasks. Accurately calculates all materials required to complete the construction tasks using standard conventions and processes to complete all calculations. Identifies the success criteria for the completion of construction tasks from explicit and implicit information provided in the brief. All appropriate preparation tasks are completed effectively in a logical sequence. A range of techniques are used fluently and consistently in completion of all three specified	CA x 3 Carpentry (Yr11) Electrical (Yr11) Plumbing (Yr11)	

		• volume • area • perimeter • time • ratio. In this section learners will gain knowledge, understanding and skills in writing and setting appropriate project success criteria to meet the requirements of set briefs, with respect to: • levels of tolerance • timescales • quality. In this section learners will gain knowledge, understanding and skills in preparing materials and undertaking any other required preparations for each selected task, with regard to: • the properties of common materials required to complete construction tasks (for the three selected trade areas). In this section learners will gain knowledge, understanding and skills in carrying out techniques, focussing on: • the processes involved in carrying out simple construction tasks (in each of the three selected	tasks. All outcomes are within specification tolerances. Applies health and safety practices in completion of construction tasks independently. Evaluates the quality of construction tasks completed. Judgements are reasoned and equal consideration given to specification and success criteria.		

		trade areas). In this section learners will gain knowledge, understanding and skills in removing and safely disposing of materials used in carrying out three of the above techniques, focussing on safe and environmentally responsible means of disposing or recycling of materials. In this section learners will gain knowledge, understanding and skills in working practices that promote their own health and safety and that of others, developing an awareness of health and safety practices related to each of the three selected trade areas, including: • ensuring the cleanliness and safety of work areas • correct personal protective equipment. In this section learners will gain knowledge, understanding and skills in evaluating the quality of completed construction tasks, including how outcomes can be evaluated: • requirements of the brief • personally set success criteria			

		• needs of end users, including their safety.			

CTBE - Year 11 Unit 1 Theory and exam practice (Part 2)					
What are we learning?	**Our intention - What knowledge, understanding and skills will we gain?**		**Evaluation and assessment methods**	**Implementation**	**What additional resources are available?**
Unit 1 – Introduction to the built environment.	**Knowledge** AO1 Demonstrate knowledge and understanding from across the specification. AO2 Apply skills (including practical skills), knowledge and understanding in a variety of contexts and in planning and carrying out investigations and tasks. AO3	**Skills** POS – Year 11 topics 1.5 Building structures and forms 1.6 Sustainable construction methods 1.7 Trades, employment and careers 1.8 Health and safety	Able to explain exam questions and give examples.	Links to KS3 H&S learning.	Links to HSE website and industry links. Virtual visits to worksites. Videos from HSE.

	Analyse and evaluate information, making reasoned judgements and presenting conclusions.				
1.5 Building structures and forms.	**Knowledge** In this section learners will gain knowledge and understanding of the following building structures and forms: • cellular constructions • rectangular frame constructions • portal frame constructions • heritage and traditional methods.		Full understanding shown in the end of unit assessment. Student can explain and give examples.	N/A	SOL PPT – Tasks and assessments. Exam board textbook.

1.6 Sustainable construction methods.	**Knowledge** In this section learners will gain knowledge and understanding of issues related to sustainable construction methods: • the environmental, financial, cultural and social benefits of sustainable construction methods • pollution and the preservation of the natural environment and natural habitats • sustainable materials used to create building frames, walls, roofs • waste disposal, re-use and recycling • planning permission, brownfield sites and greenfield sites.		Full understanding shown in the end of unit assessment. Student can explain and give examples.	N/A	SOL PPT – Tasks and assessments. Exam board textbook.

1.7 Trades, employment and careers.	**Knowledge** In this section, learners will gain knowledge and understanding of the following: • bricklaying • stonemasonry • plastering • carpentry and joinery • electrical installation • plumbing installation • painting and decorating • flooring and tiling.		Full understanding shown in the end of unit assessment. Student can explain and give examples.	N/A	SOL PPT – Tasks and assessments. Exam board textbook.
1.8 Health and Safety.	**Knowledge** In this section learners will gain knowledge and understanding of health and safety in relation to: • risks for employees, employers and the public during construction and the built environment projects		Full understanding shown in the end of unit assessment. Student can explain and give examples.	Some links to KS3 DT – H&S.	SOL PPT – Tasks and assessments. Exam board textbook.

	• following procedures and carrying out risk assessments • relevant legislation, including Health and Safety at Work Act and Control of Substances Hazardous to Health (COSHH) regulations • using personal protective equipment (PPE) • safely working with gas, water and electricity • working at height and in enclosed spaces.				