

Curriculum Intent

'The expert at anything was once a beginner.' Helen Hayes

Constructing the Built Environment offers students a learning experience that focuses their education through applied learning. The course is vocational in outlook with students acquiring and applying knowledge, skills and understanding through tasks based on real life situations in the construction industry. Throughout the course students learn how to carry out the tasks to the required professional standard.

The course is based around the work-related concept of 'plan, do, review' where students are taught the processes of planning, constructing and evaluating set construction tasks. Students will develop a broad appreciation of work in construction and the built environment and will be encouraged to make full use of the wide range of opportunities available to them in further education, apprenticeships and employment whilst taking into account the improving local economy and labour market.

Year 10 and 11 (KS4) Constructing the Built Environment

In year 10 students will have opted to take a vocational course within this part of the department. This course continues through until the end of year 11 and is a new offer to the students in the last year replacing the D and T GCSE qualification. During the last year the facilities have been modified to help students work in a more realistic work situation; especially for painting and decorating. Students can study a Construction course that offers them a wide range of diverse post 16 opportunities. These include architecture, plumbing, painting and decorating, electrical work, joinery as well as many other trades or professions in the construction industry. The course outline is explained below.

Eduqas Constructing the Built Environment Level 1&2

Eduqas Level 1/2 Vocational Award in Constructing the Built Environment has been designed to develop in students the skills needed for progression from Key Stage 4 and GCSE learning to further education, employment and training.

The successful completion of this qualification, together with other equivalent qualifications, such as in maths and the sciences, could provide the student with opportunities to access a range of qualifications including GCE, apprenticeships, vocationally related and occupational qualifications. These include:

- Level 3 Eduqas Applied Diploma in Professional Construction Practice
- Level 2 qualifications in construction, including specialist areas such as plumbing, bricklaying and carpentry Apprenticeships in construction.

All students will be required to study about the construction industry through three different units.

These are assessed in the following format:

Unit 1 Safety and security in construction (externally assessed at the end of year 10)

Unit 2 Practical construction skills (internally assessed during year 10 and 11)

Unit 3 Planning construction projects (externally assessed at the end of year 11)

Teaching Sequence

In year 10 students will develop a range of skills and techniques to help them with Unit 2 of the course. This will be interleaved with Unit 1 theory throughout the year to help embed knowledge and understanding of the theory part of the course so that constant testing and assessments can be carried out to check for good student progress and understanding of work covered.

Unit 2

This is the practical element and these skills will include:

- Joinery
- Painting and Decorating
- Electrical.

These will be tested during year 10 and 11 where students will be given a set scenario to complete. The scenario has to be agreed by Eduqas and is the same task for all students.

The practical construction skills section (Unit 2) also includes written work to support the set task e.g. plan the stages of the making process and costings with a written evaluation report.

Term 1a and Term 1b (Y10)

Theory work will cover mainly the Health and safety and security assessment Unit 1 section and includes topics such as Hazard, Risk and Control Measures. It also includes Health and Safety signs, the role of the HSE and legal requirements such as COSHH and RIDDOR. This work builds on the foundation work carried out in KS3 in this area where students have identified Risks, Hazards and Control Measures such as use of PPE. It will be taught first in the year as this will be examined at the end of year 10 and mastery of these topics is paramount to exam success.

Unit 1 it will be interleaved each week with Unit 2 practical skills for the joinery assessment task (Window Casement). Students will construct a range of wood joints; learning techniques of marking out, cutting and testing in the preparation for the Window Casement Task 1 set task to be done in term 1b. Students will attempt a number of joints to get a mastery of the skills in order to complete the set assignments as independently as possible as this is assessed and moderated as part of the overall grade awarded.

Unit 1 Safety and security in construction is a 60-minute online examination that is usually taken in June of year 10 but due to school not being opening for period of time will be taken at the end of year 11 for that year group only. Subsequent years will be examined in year 10 as previously stated. Eduqas/WJEC advise that this Unit should be examined in year 10 as it is the easier of the two examinations and students then have an opportunity to re-sit if needed in year 11. The Unit 3 examination is recommended by the exam board to be done in year 11 of the course as it covers a wider assessment of topics covered over the two years and students would not have the depth of knowledge to do the examination in year 10.

During term 1b Students will plan the work for the Window Casement (Task 1) using ICT provision and then carry out the practical task independently as much as possible under supervised controlled exam conditions. This unit is covered here as it leads on well from the Robot making task in year 9 and is more demanding on time needed to complete the practical and written tasks than other assessment pieces e.g.

painting and decorating which students have not studied before. The easier painting and decorating assessment will be interleaved and with more demanding theory tasks (Unit 3) later in the course as not to overload the demands on students at that time.

Term 2a and Term 2b (Y10)

Work from Unit 1 continues with work being recapped for recall of knowledge from the previous half-term. Unit 1 work is extended further with topics such as the legal responsibility of employers and employees being covered as this is more technical in nature and requires the foundation knowledge of previous work being done. Unit 2 practical preparations move to painting and decorating which is completely new to students. They will learn a range of skills and techniques for preparation of decorating areas, use and application of emulsion and gloss paints. Finally, application of wall paper. These skills and techniques will be practiced to gain mastery for the Unit 2 set assignment for Painting and Decorating.

Students will be tested at various stages of the year to monitor progress and for correction of any misconceptions they may have about the work covered. During the whole school mid-year examinations at the end of term 2b, students will undertake the mock examination online in full examination conditions to simulate the experience they will have in June of year 10. This proved to be very successful previously and student voice feedback was that took the mock was very positive of the experience and students felt more confident in the process as a whole.

Term 3a and Term 3b (Y10)

The last term of year 10 is spent going over Unit 1 topics, revising work covered and attempting practice examination questions to improve mastery of the unit and identify areas of weakness or any misconceptions students may have. Students will sit the Unit 1 exam in June which form part of their overall marks for the qualification.

The last part of the half-term is spent studying CAD (computer aided design) building on skills developed in KS3. These include use of 2 design software, types of drawing techniques such as isometric and orthographic. This small unit teaches orthographic drawings in more depth, which can be complex and is required for them to understand construction drawings for Unit 3 in year 11 assessment tasks.

Term 1a and Term 1b (Y11)

Due to the Covid-19 pandemic Y11 will need to complete Unit 2 Window Casement assessment in the first few weeks. This is mainly the Evaluation of the practical work and printing off all written work done in year 10 for this unit.

Students will study the work needed for the end of Unit final examination for Unit 3 (Planning Construction projects) Students will work on describing the activities of those involved in construction projects. This will be done by them researching the roles using text materials and the internet. This is taught in Year 11 as it is the final unit that is assessed in June. Unit 3 will be interleaved with Unit 2 Electrical installation practical tasks. Students will practice the techniques of electrical installations of a ring main, socket, switches and bulb holder in order to master the skills and techniques for Task 2 of Unit 2. This will be assessed during term 1b. The electrical unit is taught here as the skills are harder than that of the joinery tasks and students are more mature about their work and outlook.

During term 1b, students will be given Unit 2 examination set task 2 (Electrical Installation). Students will plan the work and then carry out the practical task independently as much as possible under supervised controlled exam conditions.

Term 2a (Y11)

During term 2a, students will be given Unit 2 examination set task 3 (Painting and Decorating) Students will plan the work and then carry out the practical task independently as much as possible under supervised controlled exam conditions. This assessment task has been left until last as it is quicker (and in lots of respects easier) than the other tasks to complete. The pressures students are under at this time with demands across the curriculum make this unit less demanding on them practically.

Term 2b 3a and 3b (Y11)

Students will return to preparations for Unit 3 examination during this half term. Topics such as Three Phases of a build assignment will be considered and how planning is sequenced for the projects. This is left until this point as it is the more difficult section of the unit and builds on all work covered on other tasks/units. Students will then spend the remainder of the year revising both Unit 1 and Unit 3 in preparation for the June exams. Unit 1 having to be taken by Y11 in June due to the Covid-19 pandemic. Students will work on topics covered throughout these units, attempting practice examination questions to improve mastery of the units and identify areas of weakness or any misconceptions students may have.

Unit 1 and 3 examinations will then take place in June 2021

ASSESSMENT

The full assessment details of the course and nature of the award are explained below.

WJEC Level 1/2 Vocational Award in Constructing the Built Environment is assessed through a combination of internal and external assessment.

External assessment

Unit 1: (Covered in Year 10) Safety and security in construction is externally assessed. Details of the external assessment are as follows:

- 60-minute examination;
- Total of 60 marks
- Online assessment
- Short and extended answer questions, based on stimulus material and applied contexts
- Each question will have an applied problem-solving scenario
- Each paper will assess all learning outcomes. Assessment criteria will be sampled in each series available in the summer of each year
- Students are allowed one re-sit opportunity.
- The highest grade will contribute towards the overall grade for the qualification
- Graded Level 1 Pass, Level 2 Pass, Level 2 Merit and Level 2 Distinction.

Internal assessment

The following unit is internally assessed:

Unit 2: (Through year 10 and 11) Developing construction projects

The following principles apply to the assessment of internally assessed units:

- Units are assessed through summative controlled assessment
- Controls for assessment of each internally assessed unit are provided in a model assignment
- Each internally assessed unit must be assessed independently. Students may produce a piece of evidence that contributes to assessment criteria for more than one unit. This is acceptable provided it can be clearly attributed to a specified assessment criterion and has been produced under the appropriate controlled conditions for each unit
- Performance bands are provided for Level 1 Pass, Level 2 Pass, Level 2 Merit and Level 2 Distinction.

Evidence from students must clearly show how the student has met the standard for the higher grades and only simple generic feedback from the teacher is allowed under the regulations of the examination.

Unit 3: (Covered in Year 11) Planning construction projects is externally assessed. Details of the external assessment are as follows:

- 120-minute examination
- Total of 60 marks
- Online assessment
- A series of tasks, based on stimulus material and applied contexts
- Each task will have an applied problem-solving scenario
- Each paper will assess all learning outcomes. Assessment criteria will be sampled in each series Available in the summer of each year
- Students are allowed one re-sit opportunity. The highest grade will contribute towards the overall grade for the qualification
- Graded Level 1 Pass, Level 2 Pass, Level 2 Merit and Level 2 Distinction.