Pearson BTEC Level 3 National Extended Certificate in Construction and the Built Environment

Why study Construction at The Sixth Form at Ridgewood?

- Construction at Ridgewood has consistently attained Alps 1 'Outstanding' to Alps 3 'Excellent' and is a testament to the hard work and dedication of our students and our experienced teachers in the Construction department.
- Part of Technology, one of our largest faculties, Construction is led by the Head of Faculty who has a wealth of experience including being an experienced lead internal verifier and published construction author.
- Lessons take place in Faraday with access to state-of-the-art designing software and equipment.
- Alumni of Construction at Ridgewood have gone on to study construction, design and management, construction management, quantity surveying, building surveying and architecture at university.
- A number of students have progressed to apprenticeships with large companies such as Keepmoat and Toggle. Some of these students are now studying at university **and** working with their employer.

What topics will I study in this subject?

Topic	What this means
Construction Principles	You will develop an understanding of the underlying principles used in the design, construction and refurbishment of buildings and infrastructure. We will cover construction materials, processes, effects of temperature and the behavior of materials under load, solving practical construction problems and human comfort.
Construction Design	You will apply the principles and practice of design and construction for low and medium rise buildings and structures. We will cover the design process, building design production, construction methods and techniques and sustainability.
Construction Technology	You will examine the underlying principles and construction methods used in the construction of buildings and their associated external works. We will cover forms of low rise construction, foundation design, superstructure design and external works.
Health and Safety in Construction	You will carry out a safe system of work and investigate the significance of safety system reviews including the responsibility of employees and employers.

What skills will I need in this subject?

Skill	What this skill involves in this subject
Analysis	In Construction, your lessons and independent study work will involve analysis. This means you will be given a construction scenario that you will need to research and you will write at length about your findings. You will need to give detailed explanations and justify your choices.
Solving construction problems	As part of your coursework you will be expected to use problem solving skills. You will be presented with scenarios throughout both Units 4 and 5. You will be expected to research and find several different solutions to the problems presented and then justify your decisions on your solution.
Computer Aided Design	In your lessons and independent study time you will be expected to develop and use computer aided design skills. You will have to apply these in developing designs for a number of different construction scenarios.

What will my lessons involve?

- Discussion of key terminology and identification of areas that you must research independently.
- Listen to key information about a topic area and create sets of notes to support your coursework or revision for the exam (during theory lessons).
- Independent research using a variety of sources including internet based construction journals, reports, statistical data and websites and the construction library of books, guides and specification catalogues.
- A large proportion of lessons will be completing coursework independently. Some of this time will be spent researching a variety of sources as well as completing extended writing tasks.
- During some lessons you will work in groups to research a topic and then present your findings to the rest of the group.
- You will also complete training on Autodesk Revit CAD software in order to be able to use this in one of the exams.

What will my independent study involve?

- In order to gain the highest grades in the exam you must complete at least one hour of independent study for every lesson. During these sessions you are expected to produce revision resources that will prepare you for the exams.
- In class you will have identified your gaps in knowledge so it will be clear which areas you need to work on. Examples of this include creating mind maps, creating revision flash cards and self-quizzing, and writing up lesson notes using Cornell notes.
- You may also have to complete work collaboratively such as working on a group presentation on a given area of the exam.
- You will be expected to practise your CAD skills and will be set a number of challenges such as designing your 'Dream Home'.
- For coursework, your independent study will involve research and exploration of areas related to the content and scenario presented in the assignment brief.

How will I be assessed?

Percentage exam assessment: 66%	Percentage coursework assessment: 34%

Assessment	Details of assessment
Unit 1: Construction Principles	External assessment written exam, 1 hours 30 minutes, worth 75 marks and 33% of the overall mark. Topics covered are construction materials, solving practical construction problems and human comfort. There are some multiple choice and short answers and extended answers throughout the paper. The exam is taken at the beginning of January in Year 13.
Unit 2: Construction Design	External assessment written exam, 12 hours, worth 63 marks and 33% of the overall mark. A task set and marked by the exam board and completed under supervised conditions. Before the supervised assessment, you will be given information to research in approximately three hours in a two-week period timetabled by the exam board The supervised assessment is then 12 hours in a two-week period. There are five sections to the exam: three are extended writing pieces, one is a design task that you do by hand and the final part is a series of CAD drawings.
Unit 4: Construction technology	Internal assessment coursework, worth 17% of the overall mark. Three written assignments. Each assignment brief is written, set and marked by Ridgewood and externally verified by the exam board.
Unit 5: Health and Safety in Construction	Internal assessment coursework, worth 17% of the overall mark. Three written assignments. Each assignment brief is written, set and marked by Ridgewood and externally verified by the exam board.

How do I know this is the right course for me?

- You will be a strong independent learner who can analyse and decimate written and numerical information accurately.
- You will relish the challenges of researching, conducting and analysing data.
- You will enjoy working collaboratively and prefer a combination of coursework and exam.
- One of the challenges is time management as there are lots of deadlines and managing both coursework and exam content at the same time can be difficult. It is important that you plan from the very beginning of the course your independent study time in school and at home so that you have a clear plan of when you will complete work. This is especially important if your combination of subjects means that you have other coursework to complete.
- A lot of work is on computers and there is no practical construction involved. An interest in computer aided drawings (CAD) is essential. You should be keen to broaden your knowledge of construction at a technical or professional level.