SUBJECT & QUALIFICATION: Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment

Why is the study of Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment important?

The construction industry is one of the UK's most important sectors. In 2018 it employed, directly or indirectly, around 2.4 million people and accounted for £117 bn of the value to the UK economy. The range of jobs available is large, covering traditional craft trades, large civil engineering infrastructure projects, housebuilding, design and consultancy, and the professions such as architecture, management and surveying Study of this sector at Key Stage 4 will complement GCSE study through providing an opportunity for practical application alongside conceptual study. There are also strong opportunities for post-16 progression in this vital sector.

What skills will the study of Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment teach you?

The Tech Award gives learners the opportunity to develop sector-specific applied knowledge and skills through realistic vocational contexts. Learners will have the opportunity to develop applied knowledge and practical skills in the following areas:

- construction technology
- construction in practice
- construction and design.

This Tech Award complements the learning in GCSE programmes such as GCSE Design and Technology by teaching additional and specific skills in either brickwork or carpentry and joinery, and by providing a more applied area of study when looking at the different types of technologies being used in a real-world setting for low-rise construction.

What will you know and understand from your study of Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment?

Component 1: Construction Technology Externally Assessed

There are many different types of buildings we can construct and occupy across the UK. This component will initially examine the different forms of construction that can be used for low-rise (up to 5.2 metres in height) offices, retail units and homes. The use of prefabrication to construct buildings is now a sustainable method used to build quickly and reduce damage to the environment. You will examine the modern methods of construction that rely heavily on offsite prefabrication, which benefits the environment sustainably. In understanding how to set up a site you, will examine the information that must be completed before starting work, along with the infrastructure you will need to put in place to run the job efficiently and safely. Sub-structure works are one of the most important parts of a project as they have to safely support the superstructure that rests upon them. You will understand the methods used in

constructing several different types of foundation and the safety aspects of supporting excavations while employees work within them. The removal of water from excavations must also be carefully considered. Moving above the sub-structure, you will understand the need for provisions to stop damp rising, and the construction associated with the superstructure of a building. This is the part that has to be aesthetically pleasing, keep out the weather elements and ensure that the occupants are at a comfortable temperature. You will develop a detailed understanding of how walls, floors, roofs and external works are constructed, and you will be able to name each component part, along with its functions. This will change with each different type of construction method that can be employed in a building.

Assessment objectives

AO1 Demonstrate knowledge of work of the construction industry and the different technology used in low-rise construction projects

AO2 Demonstrate understanding of work of the construction industry and the different technology used in low-rise construction projects

A03 Be able to make connections between different construction technologies to ensure appropriateness of low-rise construction projects in different scenarios

Component 2: Construction in Practice Internally assessed, externally moderated

This component will introduce learners to commonly used hand tools, equipment and craft skills needed in the creation of the built environment and how to select and use materials in order to safely produce quality outcomes. The construction industry creates an environment that meets the needs, concerns and visions of the people who use it and is created with care and attention by dedicated construction workers who are highly trained in their chosen craft area. On-site construction work is very rewarding. Working closely with site managers and technicians, the craftsperson uses tools and equipment to create the built environment, turning dreams into reality. Everyone relies upon the construction craftsperson to provide the quality environment in which we live, work and relax. In this component, you will learn and apply vocationally correct techniques to perform construction activities which include the appropriate selection and use of a range of tools to perform construction activities. In doing this you will develop some understanding of working safely in a craft role in the construction industry. You will also have to analyse hazards and risks and then complete some practical work in one of two craft areas: brickwork and carpentry and joinery. You will complete an assessed practical activity in one craft area from the set assignments available to support the assessment of this component. You will showcase your applied knowledge and understanding in addition to your practical skills in this craft. This component will enable you to gain an insight into the construction industry in order to facilitate your choice of pathway into further education to prepare you for a career in construction or related fields.

Learning outcomes

A Be able to understand hazards and risk for safe production of a practical construction outcome

B Be able to produce a practical construction outcome.

Component 3: Construction and Design, Internally assessed, externally moderated

Learners will gain an understanding of clients' needs and develop skills in producing building design briefs and sketches that consider construction constraints.

Have you ever wondered why buildings are very different in their design and function? Or why some buildings on the outside look the same as others, but on the inside, completely different to what was expected? In this component,

you will develop your understanding of how design requirements can be developed through analysis of client requirements and needs for a new building, how to consider the external constraints on a development, and how both facets influence designing a solution for a client's needs. Upon completion of this component, you will be able to create a developed design brief and generate a number of concept ideas that could meet with the client's approval. These ideas may have to fit in with the style of traditional buildings within a locality or could be a more modern contemporary design when there are no such constraints. These concepts are developed into a final design solution that can utilise a number of graphical communication methods, including sketching skills. This component has synoptic assessment requiring you to select and integrate knowledge from across the qualification. Therefore, it should be taken at the end of the course of study. The component will bring together knowledge and understanding from other components in order for you to gain an insight into the work of the designer. This will give you a broad understanding of construction and enable you to make informed choices when considering your post-16 education. It will facilitate pathways into technician or craft education and further training.

Learning outcomes

A Understand the needs of a client and the constraints on design when designing a low-rise building

B Be able to graphically communicate the design of a low-rise building.

How are you assessed in Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment?

The components are interrelated and they are best seen as part of an integrated whole rather than as totally distinct study areas. Learners will normally take this qualification over a two-year period or longer. This means that they must be given the opportunity to build their confidence in understanding the sector, vocational contexts and vocational attributes over a long period during the course of study before they are assessed. As the interrelated components are not linked to occupational roles, certification is not available at component level.

The three components in the qualification give learners the opportunity to develop broad knowledge and understanding of the construction and built environment sector, and specialist skills such as interpreting and designing a low-rise construction to a brief, construction of a practical outcome to specification and ensuring quality of outcome at Levels 1 and 2.

There is one external assessment. Component 1: Construction Technology requires learners to understand the different areas of technology and the real-life application of these technologies in the UK and around the world. The design of this external assessment ensures that there is sufficient stretch and challenge. It is based on a key tasks that requires learners to demonstrate they can identify and use effectively an appropriate selection of skills, techniques, concepts, theories and knowledge. The external assessment takes the form of an external assessment, taken under supervised conditions, which is then marked and a grade awarded by Pearson.

Components 2 and 3 are assessed through non-exam internal assessment. The nonexam internal assessment for these components has been designed to demonstrate application of the conceptual knowledge underpinning the sector through realistic tasks and activities. This style of assessment promotes deep learning through ensuring the connection between knowledge and practice.

OPEN ELEMENT SUBJECT OVERVIEW

Key Assessment Objectives
The key learning objectives for Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment *are:*
Component 1: Construction Technology : External assessment set and marked by Pearson, completed under supervised conditions. The assessment will be completed in 1.5 hours within the period timetabled by Pearson. 60 marks.
Component 2: Construction in Practice: Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. The Pearson-set Assignment will be completed in approximately 8 hours of supervised assessment. 60 marks.
Component 3: Construction and Design: Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. The Pearson-set Assignment will be completed in approximately 2 hours of monitored preparation and 6 hours of supervised assessment. 60 marks

Study of Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment can lead to a wide range of careers:
Study of the qualification as part of Key Stage 4 learning will help learners to make more informed choices for further learning, either generally or in this sector. The choices that learners can make post-16 will depend on their overall level of attainment and their performance in the qualification. Learners who generally achieve at Level 2 across their Key Stage 4 learning might consider progression to: ● A Levels as preparation for entry to higher education in a range of subjects ● study of a vocational qualification at Level 3, such as a BTEC National in Construction and the Built Environment, which prepares learners to enter employment or apprenticeships, or to move on to higher education by studying a degree in the construction or engineering sectors. Learners who generally achieve at Level 1 across their Key Stage 4 learning might consider progression to: ● study at Level 2 post-16 in a range of technical routes designed to lead to work, to progression to employment via apprenticeships or further study at Level 3 ● study at Level 2 post-16 through a technical qualification. Learners who perform well in this qualification compared to their overall performance, should strongly consider this progression route as it can lead to employment in the construction sector.

OPEN ELEMENT SUBJECT OVERVIEW

Pearson BTEC Level 1/Level 2 Tech Award in Construction and the Built Environment Course Overview		
Term	Year 1	Year 2
Autumn 1	Component 1: Construction Technology : Develop an understanding of construction.	Component 3: Construction and Design: Develop skill in preparation for assignment.
Autumn 2	Component 1: Construction Technology : Develop an understanding of construction.	Component 1: Construction Technology : Exam preparation.
Spring 1	Component 2- Skills building in preparation for set task	Component 3: Construction and Design: Set assignment
Spring 2	Component 2- Set assignment practical	Component 1: Construction Technology : Exam preparation.
Summer 1	Component 3: Construction and Design: Develop skill to complete a set task.	Component 1: Construction Technology : Exam preparation.
Summer 2	Component 3: Construction and Design: Develop skill to complete a set task.	Component 1: Construction Technology : Exam preparation.