

Moderators' Report/ Principal Moderator Feedback

Summer 2012

Level 1 Principal Learning Controlled Assessments:
Construction and the Built Environment

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications come from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk for our BTEC qualifications.

Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

If you have any subject specific questions about this specification that require the help of a subject specialist, you can speak directly to the subject team at Pearson. Their contact details can be found on this link: www.edexcel.com/teachingservices.

You can also use our online Ask the Expert service at www.edexcel.com/ask. You will need an Edexcel username and password to access this service.

Pearson: helping people progress, everywhere

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

Summer 2012
Publications Code DP031946
All the material in this publication is copyright
© Pearson Education Ltd 2012

Contents

Introduction	4
Level 1 Unit 1 - Design the Built Environment: Design Influences	5
Level 1 Unit 2 - Design the Built Environment: Applying Design Principles	7
Level 1 Unit 3 - Create the Built Environment: Using Tools	9
Level 1 Unit 5 - Value and Use of the Built Environment	11
Level 1 Unit 6 - Maintenance of the Built Environment	14
Level 1 Unit 7 - Modern Methods of Construction	17
Grade Boundaries	19

Introduction

This is the eighth moderation series and all the available units for the Level 1 Principal Learning in Construction and the Built Environment, both internally and externally assessed, have been offered for moderation and awarded.

There were only ten centres entering candidates for this series and the number of centres per unit ranged from five to eight. With such a limited amount of work available to moderators, it is not possible to draw conclusions about whether centres have improved or not. However, there is still evidence that some centres remain inconsistent and inaccurate with their marking and internal moderation.

Centres are reminded that they can make use of the Tutor Support Materials (Copies are available to download at

http://www.edexcel.com/quals/principal_learning/cbe/Pages/default.aspx), which provide supplementary guidance on how candidates can provide evidence for the learning outcomes. However, centres should note that the Tutor Support Materials are provided to support tutors and should not be provided to candidates as part of their assessment brief. Some centres have provided the benchmark statements to candidates as a list of headings for candidates to structure their reports. Where this is the case, the centre has, in effect, made the identification of relevant points on the candidates' behalf. This practice limits the marks that can be awarded to candidates as marks in Mark Band 1 are awarded for identification of relevant factors.

Furthermore, centres should be encouraged as much as possible to access the various training and support that can be provided by Edexcel. This can include visits from senior members of the moderation team, feedback sessions following each examination series and customised training.

Level 1 Unit 1 - Design the Built Environment: Design Influences

General Comments

This is 30glh unit that requires candidates to consider human and physical factors that affect the design of the built environment. Candidates are required to produce a word-processed technical report for assessment purposes that addresses each of the four learning outcomes. The report should be produced in the context of the candidate acting in the role of an advisor to a local planning consultancy. Centres should provide candidates with the details of a simple building or structural project including a brief description of the proposals, plans, elevations and a site layout drawing. The tutor support material contains an example assessment brief that can be used for this unit and contains all of the required candidate information. Whilst the brief is ready for use, it can be modified by centres to give it a local context. However, centres are reminded that use of the brief provided is not mandatory and they can choose to prepare their own assessment briefs. Centres doing so are advised to make use of Edexcel's assignment checking service to ensure that their own assessment briefs provide candidates with the opportunity to access the full range of available marks.

Marks are awarded using a principle of best fit against a single marking grid that contains three mark bands with a total of 60 available marks.

Learning Outcome 1

This learning outcome requires candidates to demonstrate that they know how designs are influenced by local human and physical factors. This includes identifying and describing key factors **and** how they **impact** on the design process and on final designs. Key factors that candidates may identify or describe include the existing and proposed uses of the land or existing structure, the size and make up of the local community, the expected lifespan of the proposed building, existing local infrastructure, the process and impact of public consultation, the availability and cost of local resources and how a project can impact on the local environment. However, this list is not meant to be exhaustive and centres are reminded that other relevant and appropriate responses may be equally valid and able to attract marks.

Candidates from some centres produced good quality reports for this learning outcome in which they identified and described a range of key factors and their impacts on the design process. For example, some candidates described how the proposed development identified in the Edexcel assignment brief would need to upgrade existing drainage infrastructure on the Brownfield site. However, many candidates simply identified key factors without providing description. Where this was the case, candidates were not able to demonstrate understanding and marks were therefore mostly limited to the lower mark band. Centres are reminded that it is the descriptive element of candidates' work that attracts marks in the higher mark bands.

Learning Outcome 2

This learning outcome requires candidates to demonstrate that they understand the basic need for planning. This includes identifying the key stages of the planning process and demonstrating an understanding of the purposes of these stages. Ideally, candidates should include areas such as outline planning, full detailed planning, consultation and approval. They should also include the requirement to

meet current building regulations and CDM requirements. Again, this list is not meant to be exhaustive and other relevant and appropriate responses from candidates can attract marks.

This learning outcome has in previous series' not been well addressed by candidates and unfortunately this was often the case in this series. The key issue is that candidates have simply **identified** stages of the planning process but not **described** them. Often, candidates have simply pasted or reproduced the RIBA Plan of Work, which does not cover all of the major stages of planning and does not demonstrate that candidates understand the major stages of planning.

Learning Outcome 3

This learning outcome requires candidates to demonstrate that they understand the basic need for sustainability and environmental protection. This includes identifying and describing all of the major influences on sustainability and environmental protection and **describing** how these **impact** on the design of the built environment. Some of the influences that they could describe include the need to preserve natural resources, the use of recycled and recyclable materials, the use of locally sourced materials, energy consumption and efficiency, pollution and design and construction methods.

The range and quality of responses to this learning outcome varied across the different centres. Candidates achieving the highest marks clearly described a wide range of factors and demonstrated that they understood how these factors could impact on a project. For example, how the use of locally sourced materials can help to reduce CO_2 emissions produced during transportation and how incorporating the use of materials from renewable sources into a design can help to preserve finite resources. In contrast, candidates achieving marks at the lower end **identified** factors but did not describe them or demonstrate that they understand how they can have an impact on design.

Learning Outcome 4

This learning outcome requires candidates to describe the properties and uses of typical construction materials. This includes **describing** materials and their **properties** in relation to specific applications. Some of the key materials could include aggregates, cement, concrete, bricks, blocks, tiles, plastics, copper, steel, timber, glass and insulation materials.

This learning outcome has been the most successfully addressed by candidates in all previous series' and that has continued in this series. Candidates achieving the highest marks provide good descriptions of materials and their properties and usually give more than one example of where each material is commonly used. Candidates achieving lower marks usually identify materials but do not describe them and usually do not do well at describing the properties of materials.

Level 1 Unit 2 - Design the Built Environment: Applying Design Principles

General Comments

This is a 30glh unit that requires candidates to apply design principles. Candidates are required to complete two tasks.

In the first task, candidates are provided with a brief for the design of a proposed simple building or structural project, including a site layout. Acting in the role of a design technician, candidates should make notes and produce simple sketches for the design of the external appearance of the structure and make a 3D model of their design.

For the second task, candidates are required to take part in a role-play. They will continue to act in the role of a design technician, with a partner or the tutor acting in the role of the client. The candidates will introduce themselves and describe the roles and responsibilities of the design technician within the design team. They will also outline what qualifications are needed to become a design technician and describe appropriate career paths, progression routes and relevant professional bodies and the roles that they play.

Marks are awarded against two marking grids; Marking Grid A for the moderated work and Marking Grid B for the 3D model of their design and for their part in the role play activity. The total number of marks available for the moderated Grid A is 48. Grid B is not moderated and is worth a maximum of 12 marks making the unit worth a total of 60 marks.

Marking Grid A Learning Outcome 1

This learning outcome requires candidates to demonstrate that they know why structures are designed as they are. This includes extracting key information from a client brief and describing all of the appropriate reasons behind their final design. Some of the factors that candidates could describe include the availability of land, the intended use of the building, the size and layout of the building, the structural form, materials and components, the building's aesthetics and the sustainability and buildability of the building.

Historically, this learning outcome has not been well addressed by candidates and the majority gain marks in Mark Band 1 only with a small proportion of candidates gaining marks in Mark Band 2. The most common issue with this learning outcome is candidates re-writing the client brief, rather than using the client brief to describe the reasons behind their design decisions, and this is evident again in this series. Furthermore, many candidates have not covered important factors such as the layout of the building, materials and components and the sustainability and buildability of the building.

Learning Outcome 2

This learning outcome requires candidates to sketch and model a simple structure from a brief and describe it to a client. Marks in Grid A are awarded for the quality of the sketches produced.

The quality of candidates' work for this learning outcome was mostly good or better. The majority of candidates produced hand drawn sketches to a good standard that clearly showed the layout of the proposed building using plans and elevations. In most cases the plans and elevations matched the layout of the model produced for Marking Grid B. Some candidates annotated their sketches with dimensions which helped to improve their marks.

Learning Outcome 3

This learning outcome requires candidates to demonstrate that they understand the job roles, career opportunities and progression routes, and the importance of teamwork, within the construction design sector. This includes describing the main elements of the role of the design technician and describing the roles of relevant professional bodies.

The evidence produced by candidates for this learning outcome varied in this series. In some centres, candidates focussed on the role of the design technician and described how they support the client and work with other members of the design team and the career development opportunities and pathways that are open to them. However, in some centres, whilst candidates did focus on the role of the design technician, they did not describe aspects of team working, career opportunities and progression routes. Another common issue with this learning outcome is candidates not describing the roles of professional bodies and again this has been evident in this series.

Marking Grid B

There is one learning outcome in Marking Grid B for which candidates are awarded marks against two criteria. The first is the production of a model of a simple structure from a design brief and the second is taking part in a role-play to describe the design to a client. Marks awarded in Grid B should be awarded specifically for these two tasks.

Most centres provided some photographic evidence of the models produced and witness testimonies and observation records for the role-play. Centres are reminded that this is a minimum requirement for Marking Grid B.

Level 1 Unit 3 - Create the Built Environment: Using Tools

General Comments

This is a 30glh unit in which candidates learn about and use tools. The unit consists of two assessment tasks.

For the first task, candidates are required to complete a practical activity in one of five craft areas; brickwork, carpentry and joinery, painting and decorating, electrical installation or plumbing.

The second task requires the candidates to take part in a short discussion with their peers on the topic of health and safety and environmental protection in relation to their chosen craft area.

Marks are awarded against two marking grids. Marking Grid A is moderated and has a total mark allocation of 14 marks. Marking Grid B is not moderated and has a total mark allocation of 46 marks making the unit worth 60 marks in total.

Marking Grid A Learning Outcome 1

This learning outcome requires candidates to demonstrate that they know about and can describe the basic requirements for health and safety and environmental protection. This includes preparing for participation in a group discussion on health and safety in relation to a chosen craft area and describing the basic requirements for environmental protection, including COSHH and identifying all of the people at risk.

Centres are reminded that marks for this learning outcome should be awarded for evidence of candidates' **preparation for the group discussion** and not for the discussion itself. Whilst it is appropriate that candidates provide copies of PowerPoint slides, or similar, it is the notes or commentary that support this which best provide evidence for this learning outcome. Furthermore, this work should be related to the candidates' chosen craft area, i.e. the craft area that they do for Marking Grid B. In this series, as has been the case in previous series', the majority of candidates provide little evidence of preparing for the group discussion and centres are still providing witness testimonies that candidates took part.

Learning Outcome 2

This learning outcome requires candidates to demonstrate that they know about safe working practices and are able to demonstrate how ongoing experience and reflection is used to self-manage improvements in their skills and knowledge.

In previous series', this outcome has not been addressed well by candidates and this is evident again in this series. Whilst some candidates were able to identify some safe working practices, for example, maintaining a clean and tidy work area and using appropriate personal protective equipment, there was very little evidence from candidates in relation to how they could self-manage improvement in their skills and knowledge. Candidates need to be more evaluative when producing evidence for this learning outcome.

Marking Grid B

There are four learning outcomes for Marking Grid B providing candidates with the opportunity to access a maximum of 46 marks. Centres are reminded that Marking Grid B is not moderated.

Learning Outcome 1

Marks for this learning outcome should be awarded on the basis of candidates' contributions to a group discussion on health and safety and environmental protection in relation to a specific craft area.

Learning Outcome 2

Marks for this learning outcome should be awarded for the demonstration by candidates of safe working practices and appropriate use of personal protective equipment (PPE) whilst carrying out basic operations.

Learning Outcome 3

Marks for this learning outcome should be awarded for demonstrating the evaluation and use of technical information to produce and use a suitable range of quality control checks when producing a practical outcome.

Learning Outcome 4

Marks for this learning outcome should be awarded for the demonstration of skill and the use of safe working practices in the production of a practical outcome to a high standard and with a high level of attention to detail.

Most centres provided some photographic evidence of the practical outcomes and witness testimonies and observation records for the group discussion. Centres are reminded that this is a minimum requirement for Marking Grid B.

Level 1 Unit 5 - Value and Use of the Built Environment

General Comments

This is the largest Level 1 unit at 60GLH, which is double the size of the other units. The learners have two tasks to complete.

In the first task they act as a researcher and carry out an investigation to consider the suitability of the proposed design and likely effects upon the local community, and in addition should suggest a possible site location. Learners have to produce a portfolio of evidence which includes their own word processed notes on: the suitability of the proposed project design for its intended purpose and use; the impact the development is likely to have on the communities and on properties in the area; the effects on the natural environment, including the ways in which the design will help to protect the environment and ensure sustainability; the ways in which the health, safety, security, social integration and general wellbeing of the community can be improved by changes to the built environment.

In the second task they have to take on the role of a recruitment consultant and have to produce some advertising materials to encourage young people to consider a career in the 'value and use' sector of the built environment. The outcomes could be paper-based materials such as posters or leaflets, a CD recording for a radio promotional feature, a DVD recording for a television promotional feature or a website.

In general, learners covered a much greater range of factors for each of the first three learning outcomes this series, only the last learning outcome still having a small range of factors covered. Again the factors were mainly identification or brief description and for learners to attain marks in the higher bands learners need to expand their answers from identification or brief description into a description of how the factors impact on the scenario presented. It is recommended that assessors consult the guidance given in the Tutor Support Material.

The work is marked and moderated using a single assessment grid with a total of 60 marks.

Learning Outcome 1

For this Learning Outcome learners should demonstrate an understanding of the basic function and use of a simple structure. They should identify and describe the major factors relating to the suitability and impact of a simple structure.

Learners need to describe most of the major factors relating to the project's suitability. Learners may have described; the function of the building, the aesthetics, size, location, life expectancy, community issues and economic and social impact (or other equally relevant and valid responses).

Generally for this learning outcome an extensive range presented, all areas were well identified by the students; in most cases the students had gone on to briefly describe some of the factors with a little descriptive work. Most of the work for this series was scenario based which helped the marks awarded.

As suggested most coverage was brief description or identification, to achieve marks in the higher bands the students need to extend their answers and present some reasoning or examples to demonstrate understanding and move up the band range.

Learning Outcome 2

Learners should demonstrate an understanding of how the built environment provides a feeling of society and wellbeing.

Learners may describe; the provision of shelter, safety and security; improved quality of life; provision of social, leisure, residential, industrial or commercial space; provision of employment through use of the built environment and through creation of the built environment and the generation and maintenance of wealth (or other equally relevant and valid responses).

Although most students covered a good range of factors, it was mainly identification which only allows for band one marks, in other centres students had covered a few areas and had attempted descriptive answers this again hampered the marks available to award, this may be due the scenario given to the learners and so centres are reminded to encourage the learner to cover a full range of factors, to allow for marking into the top bands.

In order to achieve marks in the highest bands learners need to describe most of the major factors that affect how the built environment provides a feeling of society and wellbeing.

Learning Outcome 3

For this Learning Outcome learners should demonstrate that they know how the built environment is maintained. They should describe a broad range of sustainable practices relating to the maintenance and protection of the built environment for a specified simple structure.

Learners may have described; use of recyclable / renewable materials; planned and preventative maintenance; upgrading specifications when replacing; use of energy efficient components; energy efficient use and correct disposal of redundant materials (or other equally relevant and valid responses).

Most students seemed to have covered the main areas for this learning outcome. There was identification of maintenance requirements, use of energy efficient design, renewable materials along with the scraping and disposal of waste item and recycling. In most cases the answers were not linked to the scenario and were just a list of ideas and therefore demonstrating little understanding of the subject. The use of examples and photos would back up the identification to demonstrate a deeper understanding and may allow band two marking. If then some descriptive work was added linking the ideas to a project with some justification, this would move marks up into band three.

Learning Outcome 4

Learners should demonstrate an understanding of the job roles, career opportunities and progression routes, and the importance of teamwork for those who maintain the built environment. They should describe a broad range of job roles, teamwork

aspects, career opportunities and progression routes. They should also describe relevant professional institutions.

The range and quality of the answers were quite poor and therefore marks were mainly identification only and therefore only band one. The use of a flow chart might be considered to identify career progression and professional route allowing students to demonstrate own work. The team work aspect and communication is often totally overlooked.

In order to achieve the highest marks learners need to describe a range of job roles, teamwork and career opportunities of those who work in the 'value and use' sector of the built environment. Learners may have described; a range of craft, supervisory and management roles; relevant professional bodies; interaction, communication and progression. The roles will be relevant to the 'value and use' sector.

Summary

Centres are reminded of the availability of the Tutor Support Material for this unit, and in particular the guidance for the assessment of each Learning Outcome.

Providing learners with assessment opportunities i.e. an appropriate brief that enables them to incorporate all of the points identified within the assessment guidance will enable them to access marks across all three Mark Bands. The 'benchmark statements' within the Tutor Support Material must not be outlined to the learners nor should they be incorporated into the assignment brief.

Centres are reminded that the use of Edexcel's assessment support services and the attendance at feedback and domain assessment training is recommended.

Level 1 Unit 6 - Maintenance of the Built Environment

General Comments

This unit requires learners to understand the need for building and structural maintenance and the importance of good design and workmanship and how to identify and describe a range of common building and structural defects.

Learners are also required to be able to develop and use safe working practices and simple skills for undertaking routine building and structural maintenance operations.

This is a 30 GLH unit. The learners have two tasks to complete.

In the first task learners survey a local 'facility' and produce word processed notes that include: a planned maintenance list; appropriate maintenance notes which include the cause of defects, details of the work required, consequences of not maintaining, materials required, workforce skills, equipment needed, waste disposal and an estimate of time and cost plus a description of the key benefits of maintenance and good design and workmanship.

The second task is a practical maintenance item and the ephemeral skills are marked using Mark Grid B. However the learner is required to produce some notes outlining how they have used on going personal reflection to develop their understanding of skills required in maintenance work.

The work is marked and moderated using a 50 mark 'grid A' assessment grid. There is a 10 mark 'grid B' assessment grid for the ephemeral evidence and this is not moderated.

Learning Outcome 1

For this Learning Outcome learners must demonstrate an understanding of the need for building and structural maintenance and the importance of good design and workmanship. They should describe a wide range of benefits of maintenance activities and of good design and workmanship.

Learners may have described: appropriate timings of maintenance activities; use of low maintenance materials and materials from renewable sources; the importance of good quality workmanship; the impact of building design upon maintenance and how a buildings life is prolonged by regular maintenance (or other equally relevant and valid responses).

Within this series all candidates looked at how the design of a building can assist in keeping down maintenance/ running costs, the use of low maintenance materials and they went on to cover, and by up grading materials during maintenance can prolong the life of the building.

All candidates discussed the need for repairs to be carried out in a timely manner to save further damage. Most candidates missed the need for good workmanship. Most candidates had only identified these factors whereas other candidates had briefly or fully described the factors and therefore were awarded higher marks.

Learning Outcome 2

For this Learning Outcome learners must identify and describe a range of common building and structural defects. They should also describe the maintenance requirements for defects.

Learners may have described and considered a range of: electrical defects, plumbing/heating defects, defects attributable to poor workmanship, defects attributable to wear and tear, defects related to water penetration and a range of external defects (or equally valid and relevant responses).

The candidates have produced a good survey summary of common defects and has identified a wide range of defects using the maintenance pro-forma provided by the centre and have identified the maintenance requirement of each defect. The use of photos helps to illustrate the work requiring repairs. To move the marks into the highest band the candidates need to pick some or all the range and described the work required, fully discussing the cause as well as the repair, this will help the candidates to move marks into band three by the use of a fuller description. Some centres successfully did this by using the pro-forma to provide a basis of reporting back to the facilities manager.

Learning Outcome 3 Mark Grid A

For this Learning Outcome learners must demonstrate that they can develop and use safe working practices and simple skills for undertaking routine building and structural maintenance operations. They should describe how their experiences and reflection has been used to self-manage the development of their knowledge and skills.

Learners may have described: health and safety issues, use of correct PPE, safe manual handling, use of access equipment, completing to quality standards and contextualisation to the maintenance task completed (or other equally relevant and valid responses).

All candidates described the task undertaken although this tended to be a step by step guide to the task, but they did not reflect on how they could improve next time the task was undertaken. Some mentioned the tools they used and, some discussed the PPE but these were only statements identifying what they either could have used or worn. Within this learning outcome the candidate need to explore Health and Safety, outlining things such as; Hazards, manual handling, safe access equipment. The candidates also need to reflect on the task and how they can improve their own performance next time.

These or similar factors need to be covered to move the marks up the band. Some did mention manual handling and scaffolding without it being linked to the scenario. This allowed upper end marks to be awarded.

In order to achieve marks in the higher bands learners need to describe how own experience and reflection has been used to self-manage development of relevant knowledge and skills relating to maintenance activities

The demonstration and application of practical skills is assessed using Marking Grid B.

Learning Outcome 3 Mark Grid B

For this Learning Outcome, learners must be able to develop and use safe working practices and simple skills for undertaking routine building and structural maintenance operations. They must demonstrate their skill levels whilst completing routine operations.

Centres are reminded that the learners are required, as a minimum, to include in their portfolio copies of relevant observation record sheets for the practical tasks that they undertake, and the inclusion of **sufficient** good quality photographic evidence would be considered good practice.

Summary

Centres are reminded of the availability of the Tutor Support Material for this unit, and in particular the guidance for the assessment of each Learning Outcome.

Providing learners with assessment opportunities i.e. an appropriate brief that enables them to incorporate all of the points identified within the assessment guidance will enable them to access marks across all three Mark Bands. The 'benchmark statements' within the Tutor Support Material must not be outlined to the learners nor should they be incorporated into the assignment brief.

Centres are reminded that the use of Edexcel's assessment support services and the attendance at feedback and domain assessment training is recommended.

Level 1 Unit 7 - Modern Methods of Construction

General Comments

This unit requires the learner to know about traditional construction methods and understand alternative methods of construction. Learners are also required to be able to identify key factors influencing speed, quality, cost and sustainability of construction methods, and select a construction method.

This is a 30 GLH unit. The learners have three tasks to complete.

The first task requires learners to write a set of notes that summarise the factors that influence the design, speed of erection, quality and cost of different approaches to constructing a building.

In the second task the learners should produce two working schedules in the form of a Gantt chart. The first chart is for the construction of the building using traditional methods and the second chart is for the construction of the building using prefabrication techniques.

The third task requires the learner to state their preferred method of construction and explain reasons for their choice.

The work is marked and moderated using a 60 mark assessment grid.

Learning Outcome 1

For this Learning Outcome learners must demonstrate that they know about traditional construction methods. They should describe the major aspects of traditional construction methods for simple low-rise buildings, and describe their impact on the design and building processes.

Learners may have described: solid brick and block and cavity walls; traditional plaster finishes, slate and tile roofing; fixed partitioning; studwork and compression and capillary pipe fittings etc. and their impact on the construction process when compared to modern methods of construction (or other equally relevant and valid responses).

All candidates have obviously undertaken a good deal of research for this unit. This series work displays better underpinning knowledge of the subject area. Most of the work is identification of construction stages followed by the process such as the walls roofing materials and finishes. The Gant chart was well used and helps to look at timing.

To achieve marks for this learning outcome, candidates need to cover traditional build processes and factors such as; Solid and Cavity walls, Plaster and render finishes, Roofing styles, Timber stud partition walls and Copper plumbing. Along with the impact these have on the construction process such as skills time and quality.

Learning Outcome 2

Learners must demonstrate that they understand alternative methods of construction. They should describe the major aspects of modern methods of construction for simple low-rise structures, and describe their impact on the design and building processes.

Learners may have described: framed structures, including their connection to foundations; shell structures; crosswall and cellular structures; prefabrication; modern

components e.g. SIPs; and time, cost, quality and sustainability considerations of modern methods of construction (or other equally relevant and valid responses).

Students managed the Gantt plus identification of a factor such as speed and quality. To achieve marks in this learning outcome the submission needs to cover areas, such as; different types of structure (Framed, crosswall, cellular and shell) that could be used in the scenario this is often missed by candidates. Candidates identified and briefly describe the comparative cost of time, cost and quality of modern techniques compared with traditional and some mentioned the weather as a possible problem for traditional and an advantage for MMC. To move up the marking band will depend on the depth of answer given general identification will be in band one where as good descriptive work on all the range will be in Band three.

Learning Outcome 3

For this Learning Outcome learners must be able to identify key factors influencing speed, quality, cost and sustainability of different construction methods. Learners could also consider waste reductions brought about by prefabrication and the reduction in the amount of skilled labour needed on site.

They should describe the major factors that influence the choice of either traditional or alternative construction methods for simple low-rise structures. They should also describe their preferred method for a specified simple low-rise building.

Learners may have described: on site construction versus off-site pre-fabrication; build quality issues; sustainability issues; relative costs of different construction methods; and their own preferred construction method, either a traditional method or an alternative modern method of construction (or other equally relevant and valid responses).

All candidates managed to identify speed and cost as two of the factors for choosing their preferred method of construction, but there is little coverage of skills or quality. To cover this learning outcome fully the candidate needs to discuss and compare; on and offsite fabrication, build quality, sustainable issues, comparative costs and staffing skill levels. Then they need to relate them to the preferred construction type most candidates give a preferred method but very little reasoning. It is the justification of their decision that carries most of the marks and therefore to perform well in this learning outcome.

Summary

Centres are reminded of the availability of the Tutor Support Material for this unit, and in particular the guidance for the assessment of each Learning Outcome.

Providing learners with assessment opportunities i.e. an appropriate brief that enables them to incorporate all of the points identified within the assessment guidance will enable them to access marks across all three Mark Bands. The 'benchmark statements' within the Tutor Support Material must not be outlined to the learner nor should they be incorporated into the assignment brief.

Centres are reminded that the use of Edexcel's assessment support services and the attendance at feedback and domain assessment training is recommended.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

Further copies of this publication are available from Edexcel Publications, Adamsway, Mansfield, Notts, NG18 4FN

Telephone 01623 467467
Fax 01623 450481
Email <u>publication.orders@edexcel.com</u>
Order Code DP031946 Summer 2012

For more information on Edexcel qualifications, please visit www.edexcel.com/quals

Pearson Education Limited. Registered company number 872828 with its registered office at Edinburgh Gate, Harlow, Essex CM20 2JE





