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Examiners' Report June 2009

Principal Learning

Construction and the Built Environment Levels 1 & 2

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Principal Learning Construction and the Built Environment

Level 1 Introduction

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

This full year has been a learning curve for all with centres becoming used to the unit contents, the Marking Grids, banding and internal moderation of learners' work. The two opportunities per year to enter work appears to be working well for centres as they learn from a January series.

It is recommended that centres make use of the Tutor Support Materials which provide supplementary guidance for the units when devising learning activities for learners to accrue evidence to meet the Learning Outcomes more closely. Copies are available to download at www.edexcel.com .

Centres are also reminded that test papers following each exam session can be used as practice tests after results publication. Copies and corresponding mark schemes will be made available for centres to download from www.edexcel.com.

Level 1 Unit 1 Design the Built Environment: Design Influences

General Comments
This unit requires the learner to know how designs are influenced by both human and physical factors. Learners are also required to understand the basic need for planning, and the need for sustainability and environmental protection. Learners are further required to be able to describe the properties and uses of typical construction materials.

Learning Outcome 1
For this Learning Outcome learners are required to know how designs are influenced by human and physical factors. They should identify and describe the human and physical factors that influence the design process and describe their impact on the final design.

There was some attempt by most learners to identify and describe aspects of the human and physical factors that may affect designs. This consisted of briefly describing existing/ proposed use of land and aspects of public/ community consultation environmental impact. In general, the availability and cost of resources was poorly explained by most learners which resulted in most learner work being within bands 1 and 2 only.

Learning Outcome 2
For this Learning Outcome learners must understand the basic need for planning. They should identify and describe the major stages of the planning process and demonstrate an understanding of their purpose.

Most learners attempted a description of the planning process. In higher level work there was a good quality of description to identify not only the planning process but its link to building regulations and Construction Design and Management (CDM) requirements. In lower level work learners were unable to clearly identify aspects of planning, as per unit specification guidelines, and gave only basic generalised planning information in relation to their respective scenarios.

Learning Outcome 3
For this Learning Outcome learners must understand the basic need for sustainability and environmental protection. They should identify and describe the major influences of sustainability and environmental protection and describe their impact on the design of the built environment.

There was an attempt by most learners to identify and briefly describe recycled materials and energy efficiency. In the higher level work there was further evidence presented and greater explanation in relation to land use, the design and construction methods to be adopted and preserving natural resources.

Learning Outcome 4

For this Learning Outcome learners must be able to describe the properties and uses of typical construction materials.

In general this Learning Outcome was marked too generously by centres. Most learners were able to identify and describe the use of materials used within the proposed development. However, the description of the properties of their selected materials was often inaccurate or vague. Centres are reminded that to gain marks for this Learning Outcome, learners should attempt to summarise their own thoughts on the relevant properties of materials linked to the assignment brief scenario.

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

General Comments
This unit requires the learner to know why structures are designed as they are. Learners are also required to demonstrate the ability to sketch and model a simple structure from a brief and describe it to a client. In addition, learners are required to understand the job roles, career opportunities and progression routes, and the importance of teamwork, within the construction design sector.

In general, learners would improve their overall scores if assessment work completed was more closely linked to the recommendations of benchmark assessment guidance within the Tutor Support Materials available via the Edexcel website.

Learning Outcome 1
For this Learning Outcome learners must know why structures are designed as they are. They must extract information from a client brief and describe the appropriate reasons for the design of a simple building or other structure.

Most learners attempted to identify the availability of land, proposed building use and some form of structural form. The quality of written work was often variable with many learners' work offering only basic descriptions or in many cases inaccurate or conflicting comments. Higher marks were awarded where learners systematically worked through their solutions producing good descriptive comments.

Learning Outcome 2
For this Learning Outcome learners must be able to sketch and model a simple structure from a brief and describe it to a client.

Sketch details included by learners were satisfactory but primarily consisted of a plan detail in conjunction with some side elevations. The quality of the sketches was rarely higher than Mark Band 2 requirements.

Learning Outcome 3
For this Learning Outcome learners must understand job roles, career opportunities and progression routes within the construction design sector. They must also understand the importance of teamwork and be able to describe the roles of relevant professional institutions.

Most learners were able to identify some construction technician related job roles, career opportunities and progression routes. The quality of written work was variable with many learners work offering only basic descriptions or in many cases inaccurate or conflicting comments.

A number of learners were unable to adequately explain the importance of teamwork within the construction design sector. Explanations in relation to professional bodies were also weakly attempted by many learners.

Care must be taken to ensure that learner provide their own individual evidence. Job description and career progressions directly downloaded and cut and pasted from the internet without any interpretation in the learner's own words is not appropriate as individual leaner evidence.

An observation record sheet and photographic evidence were provided by most centres to support the relevant marks awarded in Marking Grid B.

Level 1 Unit 3 Create the Built Environment: Using Tools

General Comments
This unit requires the learner to know about and be able to discuss and describe the basic requirements for health and safety and environmental protection. They should also know about, use and be able to improve own use of safe working practices to understand basic operations. Learners should also demonstrate understanding of a range of technical information. They should also be able to safely use a basic range of hand tools to produce a simple product.

Learning Outcome 1
For this Learning Outcome learners must know about the basic requirements for health and safety and environmental protection. They should prepare for taking part in a group discussion on health and safety for a specific craft area, describe the basic requirements for health and safety and environmental protection and identify the people at risk.

There was some attempt by most learners to identify and describe the main features of health & safety and environmental protection. In particular, responsibilities under Health and Safety at Work Act (HASWA), describing a range of Personal Protective Equipment (PPE) and Control of Substances Hazardous to Health (COSHH) requirements were often well described and presented by learners.

Learning Outcome 2
For this Learning Outcome learners must know about and be able to improve their own use of safe working practices when undertaking basic operations. They must identify appropriate safe working practices when using tools, materials and equipment and describe how ongoing reflection is used to self-manage improvements in their skills and knowledge.

Most learners attempted to identify and describe how to improve and be able to improve use of safe working practices in relation to practical tasks undertaken. In the more able work, learners systematically identified and described the majority of safe working practices when using basic tools, equipment and materials.

Marking Grid B
Observation record sheets and photographic evidence provided appropriate supporting evidence for assessors to award the appropriate marks in Marking Grid B.

Level 1 Unit 4 Create the Built Environment: Methods and Materials

General Comments
This unit requires the learner to know about modern construction methods, materials and techniques. Learners should also demonstrate understanding of the use of sustainable materials, job roles, career opportunities and progression routes, and the importance of teamwork, for those who construct the built environment.

Learning Outcome 1
Few learners scored highly in this Learning Outcome. The aspect of materials combined within structures, and the understanding of the key stages of production of a building, challenged several learners. Now that centres have two exam papers for revision purposes, and combined with some additional directed delivery, marks should improve.

Learning Outcome 2
Few learners scored highly in this Learning Outcome. To increase learners' achievement on this learning outcome tutors are encourage to direct their delivery to the aspect of sustainability.

Learning Outcome 3
The aspect of progression routes from craft roles in Questions 6 and 7 was seen to challenge learners. This aspect needs some further delivery work for future series which will then lift learners' marks into higher grading.

Level 1 Unit 5 Value and Use of the Built Environment

General Comments
This unit requires the learner to understand the basic function of structures and how the built environment provides a feeling of society and wellbeing. Learners are also required to know how the built environment is maintained. Finally learners are required to understand the job roles, career opportunities and progression routes, and the teamwork, for those who value and maintain the built environment.

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.

Many learners gave brief descriptions of size, location and function. However, life expectancy, aesthetics and economic and social impact were either not attempted or poorly described.

Centres are reminded that the specification requires candidates to identify and describe factors relating to a simple structure and providing assignment briefs that relate to more complex structures can disadvantage the candidates.

In order to achieve marks in the higher Mark Bands, learners need to provide clear descriptions of all of the major factors relating to the suitability and impact of the specified simple structure. Centres can support learners by ensuring that the full range of factors, as identified in the benchmark statements in the specification, is covered. The Tutor Support Materials, and in particular the benchmark statements, provide further guidance on the range of factors that could be covered.

Learning Outcome 2
For this Learning Outcome learners should demonstrate an understanding of how the built environment provides a feeling of society and wellbeing.

The quality of learners' work for this Learning Outcome was generally poor. Learners have focussed mainly on shelter, safety and security with little emphasis on the other major factors identified in the specification, i.e. quality of life and ways in which the built environment can help to produce economic opportunities and employment. Furthermore, the evidence provided by learners was generally limited to identification and largely lacked descriptive qualities.

In order to access marks in the higher Mark Bands, learners must provide clear descriptions of all of the major factors relating to the learning outcome. The benchmark statements in the Tutor Support Materials provide additional guidance for centres on the range of major factors that could be covered.

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.

Much of the work submitted by learners focussed mainly on the use of recyclable/renewable materials and energy efficiency and waste disposal.

However, this was largely limited to identification of sustainable practices with very little description. There was little or no description of the various effects on the natural environment throughout the stages of the construction cycle.

The centre is reminded that marks in the highest mark band can only achieved by learners describing a broad range of sustainable practices relating to maintenance and protection of the built environment. The benchmark statements in the Tutor Support Materials provide additional guidance on the range of sustainable practices that could be covered.

Learning Outcome 4

For this Learning Outcome 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.

Many learners were able to describe some craft and professional roles related maintenance of the built environment. However, evidence relating to progression routes and the importance of teamwork was generally quite limited. Furthermore, evidence relating to relevant professional institutions was mostly limited to information printed directly from websites.

In order to access the highest marks, learners need to describe a broader range of job roles, aspects of teamwork, career opportunities and progression routes. They also need to describe the relevant professional bodies. The benchmark statements in the Tutor Support Materials provide additional guidance on what could be covered.

Summary

Centres are reminded of the availability of the Tutor Support Material for this unit, and in particular the benchmark statements for each Learning Outcome. These materials provide useful additional guidance for centres in relation to each unit and each Learning Outcome. Providing candidates with assessment opportunities that enable them to incorporate all of the points identified within the benchmark statements will enable them to access marks across all three Mark Bands.

Level 1 Unit 6 Maintenance of the Built Environment

General Comments
This unit requires the learner to understand the need for building and structural maintenance, and the importance of good design and workmanship. Learners are required to know 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.

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.

Most learners identified some of the benefits of maintenance activities and of good design and workmanship. The best pieces of work also included some description of the causes of defects and the benefits of planned maintenance. The benchmark statements in the Tutor Support Materials provide additional guidance on what could be covered.

Learning Outcome 2
For this Learning Outcome candidates must identify and describe a range of common building and structural defects. They should also describe the maintenance requirements for defects.

Most learners attempted to identify a range of common defects. However, description of these would have enabled learners to access higher marks. There was evidence that some centres provided the learners with worksheets to identify simple defects and basic maintenance requirements. Whilst this was clearly helpful to some learners, this practice can be somewhat limiting in terms enabling learners to produce their own work and consequently access higher marks.

Learning Outcome 3
Marking 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.

Centres are reminded that the specification states that marks are awarded for demonstrating how the learners' own experience and reflection has been used to self-manage the development of their knowledge and skills. The demonstration and application of practical skills is assessed using Marking Grid B. The benchmark statements in the Tutor Support Materials provide additional guidance on what could be covered.

Marking Grid B
Learning Outcome 3
For this Learning Outcome, candidates 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 good quality photographic evidence would be considered good practice.

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.

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.

Most learners identified some major aspects of traditional construction methods. However, these were mainly limited to brick cavity walls, plastering methods, partitioning and the use of copper pipe fittings. Furthermore, most learners provided only identification with very little description. Some centres provided learners with gapped handouts to complete. Whilst this may have certain advantages as a learning exercise, when used for assessment purposes it limits the learners' ability to access marks in the higher Mark Bands. The benchmark statements in the Tutor Support Materials provide additional guidance on the range of construction methods that could be covered.

Learning Outcome 2
For this Learning Outcome candidates 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.

Most learners attempted some brief description of framed and cellular structures. The highest scoring learners also provided some identification of issues relating to the speed and cost of modern methods of construction. Some centres provided learners with gapped handouts to complete. Whilst this may have certain advantages as a learning exercise, when used for assessment purposes it limits the learners' ability to access marks in the higher Mark Bands.

Learning Outcome 3
For this Learning Outcome candidates must be able to identify key factors influencing speed, quality, cost and sustainability of different construction methods. 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.

The range and quality of learners' work for this Learning Outcome was generally very limited. The majority of learners achieved only very low marks for work that was mostly identification and lacking in descriptive qualities. Some learners simply provided information sheets from websites. Whilst this does show some research, it is not the learners' own work. The specification and Tutor Support Materials provide clear guidance on the unit content and the assessment requirements. Centres are reminded that these documents should be referred to.

Statistics

Level 1 Unit 1 Design the Built Environment: Design Influences

	Max. Mark	A*	A	B
Raw boundary mark	60	51	37	23
Points Score	4	3	2	1

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

	Max. Mark	A*	A	B
Raw boundary mark	60	51	37	23
Points Score	4	3	2	1

Level 1 Unit 3 Create the Built Environment: Using Tools

	Max. Mark	A*	A	B
Raw boundary mark	60	53	38	24
Points Score	4	3	2	1

Level 1 Unit 4 Create the Built Environment: Methods and Materials

	Max. Mark	A*	A	B
Raw boundary mark	60	50	37	24
Points Score	4	3	2	1

Level 1 Unit 5 Value and Use of the Built Environment

	Max. Mark	A*	A	B
Raw boundary mark	60	52	37	22
Points Score	8	6	4	2

Level 1 Unit 6 Maintenance of the Built Environment

	Max. Mark	A*	A	B
Raw boundary mark	60	52	37	23
Points Score	4	3	2	1

Level 1 Unit 7 Modern Methods of Construction

	Max. Mark	A*	A	B
Raw boundary mark	60	52	37	22
Points Score	4	3	2	1

Notes

Centres are reminded that this is the first summer examination for this new specification and that boundaries may change in the following series

Maximum Mark (raw): the mark corresponding to the sum total of the marks shown on the Mark Scheme or Marking Grids.

Raw boundary mark: the minimum mark required by a learner to qualify for a given grade.

Principal Learning Construction and the Built Environment

Level 2 Introduction

This series saw an increase in the amount of coursework submitted for moderation by centres.

This is the first year that centres have submitted a selection of learners' work from a range of units. A number of centres failed to meet the submission deadline. Centres must ensure that they refer to the Information Manual for details of the mark and sample submission deadline and submit work by the date given.

The majority of centres that submitted work for moderation this series supplied the correct moderation sample however centres are reminded that they must follow the instructions on the submission of coursework evidence given in the Guidance for Principal Learning. Centres must ensure a completed Candidate Record Sheet is attached to each piece of coursework, a print out of entries on Edexcel Online indicating the selected sample is sent to the moderator with the candidates work and the sample contains that candidates with the highest and lowest mark for each unit.

Centres are reminded that 'any assignment briefs the learner used must be included with the evidence', as indicated on the Candidate Record Sheets. This is especially useful for the moderator when trying to interpret where marks have been awarded.

Centres are reminded that learners' work must be their own. Any work that has been downloaded and pasted into an evidence portfolio should have its source acknowledged but carry no merit for marks.

Several learners work showed evidence of extensive guidance by the delivery centre with titles and subtitles appearing in the same learners work and in the same sequence. Learners need to develop an independent method of learning and producing evidence.

This is the first year of this qualification and the Moderators appreciate that it is a fast learning curve for some centres. The work produced by some learners was extensive in some cases but did not cover the evidence required by the unit specification.

It is recommended that centres make use of the Tutor Support Materials which provide supplementary guidance for the units when devising learning activities for learners to accrue evidence to meet the Learning Outcomes more closely. Copies are available to download at www.edexcel.com. Tutors should specifically refer to the extended marking guidance which will assist with the setting and marking of assignments. Assignments written in line with this guide would enable learners to get a much clearer understanding of what evidence is required in order to achieve a higher banding.

Develop robust internal assessment and moderation processes and procedures that would highlight moderated evidence from learners that does not meet grading criteria, identifying what additional work is required for the learner to achieve.

Level 2 Unit 1 Design the Built Environment: The Design Process

General Comments
Several centres appeared to have used the assignment brief contained within the Tutor Support Material available on the Edexcel website. This is a good method of using the support that has been provided for this line of learning. Centres could use these materials until they are confident with the quality systems in place to produce their own method of assessments which they can tailor to a local project scenario.

Learning Outcome 1
Knowing the factors that influence the design process is the key to meeting the requirements of this Learning Outcome. Many learners covered the first area of local factors and legislation, covering planning, building regulations and infrastructure, but fell short on the elements that cover sustainable design features. The Tutor Support Material provides a list of sustainable factors that assessors could cover with their learner. Very few centres covered this element in the level of detail required, for example few learners demonstrated an understanding of the concept of orientating a building to maximise the use of natural daylight to save energy.

Learning Outcome 2
This Learning Outcome covers the element of infrastructure and utilities. Learners could name the services of water, gas, electricity, drainage and data, and many provided excellent colour identification of the services, but did not quite explain these in any detail which would have afforded greater marks. Learners need to expand on the visual and aesthetic impact of the installation of the main primary services, for example the impact of electricity pylons on the landscape and environment, the dangers to humans, and the problems involved in distribution.

The disruption to infrastructure during installation was briefly covered by learners but would benefit from expansion e.g. road closure, traffic delays and diversions. Centres need to ensure learners have an understanding of concept of the initial point of the service, that is its production at the source e.g. a power station, and then its eventual reduction in supply down to the domestic consumer e.g. transformers. Isolation points e.g. water valves, stopcocks were lacking in the evidence provided. Perhaps centres could invite guest speakers concerning the utilities into the classroom to provide detailed information and understanding of this element.

The impact of the utility on the environment was an opportunity many learners missed out on, for example, water treatment and sewage treatment, emissions' from power stations and plastics used in the manufacture of ducting below footpaths. It would be useful for assessors to cover topics such as the effects on what they consume, or for what damage does building a new house do?

Learning Outcome 3
This Learning Outcome covers the building envelope and its requirements for the local climate. Many learners could answer the shelter element but did not expand on the insulation, transfer of sound, fire and security elements.
Focusing the learner within their own environment at home would enable them to expand on this shortfall in detail and enable them to use real life examples. For example, many learners will know of a building that has been vandalised and set fire to.

No learner considered the structural integrity of a building's envelope and its resistance to external forces. This is an area that centres need to work on with building loadings, due to live, dead, wind and rain.

The external aesthetics and appearance of the building envelope was considered by many but could have been expanded into much more detail. For example, the way in which rain is kept away from the inside of a building, the methods used to slow down heat loss, how we ventilate a building, how elements work together, how colour is used in buildings, geographical use of materials e.g. slate, stone, brick, flint.

Level 2 Unit 2 Design the Built Environment: Materials and Structures

Learning Outcome 1
This Learning Outcome covers knowledge about construction materials and their function within structures. Aspects of the learners' work only mentioned and identified materials but the requirement is to briefly describe their characteristics to enter Mark Band 1. Many learners took an element for example floors, roof and walls but did not start with the material as the first point, then expand this into the function. Getting learners to list materials and not functions would enable more marks to be awarded.

Learners were also unable to examine a wide range of construction elements and to evaluate how different materials work together to perform different functions. Note for higher Mark Bands a greater number of sets of materials have to be identified working together. The learners often covered a range of materials that were not related to the brief. Reference to the benchmark statements within the Tutor Support Material for future submission will help guide both tutor and learner.

For learners to obtain marks within the higher bands answers should be structured so they clearly describe and justify all of the key materials forming the major structural elements and external envelope of the proposed structure. This should include; fill materials, concrete, steel (including reinforcement), materials providing shelter and security, including materials that allow the passage of natural light, materials that provide insulation and reduce heat transfer, materials and components providing access to the building. In addition, learners need to develop skills to evaluate how different materials work together to perform different functions.

Learning Outcome 2
This Learning Outcome demonstrated a repeat of Learning Outcome 1 where learners only identified materials used in a sustainable way and failed to provide any depth in their answers. This limited the marks to Mark Band 1. It was apparent that the centers focus on local sourcing of materials, recycling and obtaining materials from sustainable sources. Learners should be encouraged to:

- examine whether a material can be sourced locally this saving on transport costs etc
- examine whether a material can be obtained from a sustainable source, for example a managed forestry commission certified source
- use alternatives that are not derived from fossil fuel sources or other finite supply
- identify whether the material has the ability to be recycled after its life has finished into another useful product, or if the material be produced from recycled materials for example plastic lumber
- consider the amount of energy that has been put into manufacturing, transporting and fixing the material.

To access the higher Mark Bands the students need to justify the use of a range of sustainable materials and analyses in sustainability terms the benefits and drawbacks of all of the key materials used on the project, considering their effects on the environment. The key to this Learning Outcome is to understand the

meaning of the term a sustainable community and what factors contribute to maintain this.

Learning Outcome 3
On the whole learners were unable to identify the structural form that has been used on the drawings and brief which is a portal frame and produced a list of different structural forms without relating their benefits or advantages as an alternative to the one used within the brief. Higher marks are awarded for the evaluation of suitability of alternative structural forms. In addition, few learners attempted to examine and briefly describe a construction detail, for example the junction of the roof and wall, the junction of the wall and foundation.

Marks were awarded where learners 'identified' where the Marking Grid requires a brief description to enter the marks in Mark Band 1. Consequently learners were unable to access the higher Mark Bands with this approach as much of the work was brief and lacking depth. Marks could be improved by describing clearly a range of suitable alternative structural forms that could have been used for the project scenario including consideration of the advantages and disadvantages of each form; and select and clearly describe and analyse a range of construction details.

To gain merit in the higher mark bands the candidates need to develop their description skills and evaluation skills regarding the structural form of the project. Learners then need to continue to describe clearly a range of suitable alternative structural forms that could have been used for the project scenario, considering the advantages and disadvantages of each form.

Level 2 Unit 3 Design the Built Environment: Applying Design Principles

General Comments
Learners' work for the unit was related to the exemplar work suggested in the Tutor Support Material. However, in most cases centres failed to include the assignment briefs and consequently it was difficult for the moderator to assess the focus of the work produced. In addition, slight alterations were made to the specification provided; this further compounded the problem when assessing the learners' work.

Learning Outcome 1
The majority of learners made a good attempt at this task with many producing a range of leaflets. However, others produced a series of PowerPoint slides that missed the theme of this Learning Outcome. The content in part was 'cut and paste' from a range of internet sources and consequently lacked personal input.

Tutors are directed to the benchmark statement which detail the correct job roles and relevant professional institutions.

For candidates to obtain the higher marks they need to address progression pathways outlining the possible routes to supervisory, technical and professional roles and include the need for teamwork within the design of the built environment. In addition, the candidates would benefit from including a description and justification of the role of the relevant professional institutions.

Learning Outcome 2
Centres produced a range of outcomes for this Learning Outcome from hand drawn to the use of CAD. The majority of learners failed to address consistently and to the required standard the points. In failing to do this their designing ideas were not able to be rewarded. On the whole most learners did not adequately annotate their work and therefore moderators were unable to access higher marks.

With this Learning Outcome broken-down into three aspects the candidates needs to be able to illustrate their ideas using an appropriate CAD package and clearly describe and justify as many features that will meet the client's needs. To support their work and to access the higher Mark Bands they are required to annotate their work to show where their design work shows consistent precise attention to detail. In evaluating their final design it is beneficial for the student to evaluate against the brief next to the CAD drawings to encourage the student to include all their work.

Level 2 Unit 4 Create the Built Environment: Structures

General Comments
The ramping of the questions worked well in stretching the ability of the more able learners towards the end of the exam paper. Learners coped well with the initial questions where there was a limited choice.

Regarding second fix joinery items, learners appeared to not understand architrave and window board terminology represented visually within photographs. Onsite operations, especially the setting out of construction work within Question 9, stretched some learners. Very few learners understood the terminology associated with construction programs, especially what a critical path was.

Centres need to inform learners about construction technology through site visits and visual materials. This would greatly assist learners in accessing marks on the graphical and photographic questions of the external assessment and give them some interesting stimulation for learning

Question 12
Many learners did not understand the concept of construction plant. The majority of learner did not demonstrate an understanding of the concepts of efficiency created by the use of plant and some simply repeated answers on one area which gained no additional merit.

Question 13
Learners had to compare a greenfield and brownfield site, stating four advantages that a brownfield site has over a greenfield site. Many attempted this in terms of greenfield site concepts and did not talk in terms of a brownfield site. This prevented many learners from accessing the higher marks.

Level 2 Unit 5 Create the Built Environment: Using Tools

General Comments
Much of the learners work submitted for the unit was related to the exemplar work suggest in the Tutor Support Material with many centres electing to produce the joinery planter. The areas selected were Carpentry and Joinery or Building Services. It is encouraging that centres chose the building services element as this is the most technically testing for learners who appeared to perform well on the plumbing and electrical test rigs. On the whole, the majority of centres included the working drawings that learners were working from.

Learning Outcome 1, 2 and 3
These Learning Outcomes were attempted by all centres as a complete task. The majority of centers produced a booklet or a series of work sheets which were gathered and submitted. However, some of the information within the booklets did not meet any of the learning outcomes and therefore did not gain any marks.

For the learners to access the higher Mark Bands it is suggested they approach the Learning Outcomes by completing a series of smaller theoretical tasks at crucial times within the practical activities. For example; when first entering the workshop and handling the tools the candidates can record their experiences ensuring they are describing clearly all of the hazards and potential risks including the appropriate materials to use. They then can continue with a risk assessment to identify people at risk. Finally, evaluate their understanding by reflecting on how their experiences to self manage any necessary improvements is establish and made.

To support learners it is suggested centers develop a series of documents to enable the specific information to be recorded.

The learners' work was on the whole annotated to a suitable standard by assessors, however, centres should ensure that where photographs are submitted, these are of good quality further supporting the marks awarded. Larger and more detailed photographs would help to correctly identify some of the Mark Band B criteria within the witness evidence. In addition, the photographs should show hidden joints and aspects of the practical tasks that are not able to be recorded in the final outcome. This could also support marks awarded for Health and Safety and Personal Protective Equipment (PPE).

Learning Outcome 4

All learners produced PowerPoint presentation slides as evidence of their presentation. However, learners did not fully focus on the specific trade they had completed for the practical activity and many were unable to discuss progression routes, teamwork and the role of professional institutions.

For example if a learner has chosen the joinery practical Learning Outcome then it is this aspect that they need to talk and describe in the presentation and not a plumber or electrician. The progression route of a joinery from off the tools into management, then professional management could be explained in some detail.

To obtain the higher Mark Bands it is essential candidates can explain the progression routes from a craft role through to a project manager and also to clearly explain the teamwork and communication requirements from a craft job to a professional role. In addition, a description and justification of most of the relevant professional institutions is essential. There is a list provided in the specification and in the Tutor Support Material including the relevant web addresses.

Level 2 Unit 6 Value and Use of the Built Environment: Communities

Learning Outcome 1
Learners predominantly addressed the use of locally sourced materials and services; impact on local community; energy saving through replacement of original components with energy efficient alternatives; increased expenditure on higher specification/quality materials to reduce maintenance costs and address life cycle issues. However, these tended to be described only briefly and not evaluated to any depth.

Learning Outcome 2
This Learning Outcome was not fully met by most learners, with many missing out on making key points outlined in the benchmark statements. The local property market was attempted but it was evident that much of the work was in part 'cut and pasted' from estate agent websites.

Learning Outcome 3
This Learning Outcome was not fully met by most learners. However, change of use to support the local community, security, a maintenance programme and refurbishment to support this was identified with the introduction of ramps for wheelchair access and other similar requirements.

Learning Outcome 4
Learners produced evidence of nearly all the job roles but it was difficult to award marks above Mark Band 1 as there lacked depth and quality due to the lack of discussion of progression routes, teamwork and the role of professional institutions. Centres are reminded that to gain marks a brief description is the minimum requirement.

Level 2 Unit 7 Value and Use of the Built Environment: Facilities Management

Learning Outcome 1
This Learning Outcome calls for the learner to know about the maintenance of the built environment. Centres need to ensure learners have a knowledge and understanding of reactive, cyclical and planned building maintenance.

Learning Outcome 2
This opens up Learning Outcome 1 into much more detail. The social and economic benefits of maintenance should be examined along with how the maintenance is undertaken on site from direct labour to specialist contractors.
Site visits involving a facilities manager for a large organisation would prove beneficial for learners to gain an appreciation of this aspect.

Learning Outcome 3
An analysis of facilities management provision is required in terms of how facilities are managed, the benefits of this management and the performance of this management.

Statistics

Level 2 Unit 1 Design the Built Environment: The Design Process

	Max. Mark	A*	A	B	C
Raw boundary mark	60	53	42	32	22
Points Score	10	8	6	4	2

Level 2 Unit 2 Design the Built Environment: Materials and Structures

	Max. Mark	A*	A	B	C
Raw boundary mark	60	53	42	32	22
Points Score	10	8	6	4	2

Level 2 Unit 3 Design the Built Environment: Applying Design Principles

	Max. Mark	A*	A	B	C
Raw boundary mark	60	53	43	33	23
Points Score	10	8	6	4	2

Level 2 Unit 4 Create the Built Environment: Structures

	Max. Mark	A*	A	B	C
Raw boundary mark	60	50	40	31	22
Points Score	10	8	6	4	2

Level 2 Unit 5 Create the Built Environment: Using Tools

	Max. Mark	A*	A	B	C
Raw boundary mark	60	52	42	33	24
Points Score	10	8	6	4	2

Level 2 Unit 6 Value and Use of the Built Environment: Communities

	Max. Mark	A*	A	B	C
Raw boundary mark	60	52	42	32	22
Points Score	10	8	6	4	2

Level 2 Unit 7 Value and Use of the Built Environment: Facilities Management

	Max. Mark	A*	A	B	C
Raw boundary mark	60	52	42	32	22
Points Score	10	8	6	4	2

Notes

Centres are reminded that this is the first summer examination for this new specification and that boundaries may change in the following series

Maximum Mark (raw): the mark corresponding to the sum total of the marks shown on the Mark Scheme or Marking Grids.

Raw boundary mark: the minimum mark required by a learner to qualify for a given grade.

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