

# Examiners' Report

Summer 2010

**Principal Learning** 

Environmental and Land-based Studies Level 2 Controlled Assessments



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# Level 2 Principal Learning in Environmental and Land-based Studies

#### Introduction

This was the first series for all units expect unit 1. Evidence was presented mostly in the format of written responses to an assignment brief, but there were opportunities for learners to use a variety of ways including, hand scripted, word processed, sketches, diagrams, photographs, spreadsheets, field notes, and oral, group, or PowerPoint presentations. A range of different types of assessment evidence was encouraged and generally annotation of evidence against specific learning outcomes was clear which facilitated moderation. Some centres also included an explanation or justification of grades awarded which was appreciated. However in some portfolios it was difficult to assess individual contribution to group activities.

It was pleasing to note that most if not all administrative requirements were met during this moderation series:

- submission deadlines met
- correct paperwork included e.g. learner record sheets, authentication statements etc.
- marks correctly entered on paperwork

Meeting deadlines and the inclusion of accurate paperwork again facilitated moderation.

There was little evidence of internal moderation however. This may not be necessary where one marker can mark the whole centre's allocation, but it would be advisable to get a second opinion on marks submitted. Moderators also reported that some centres appeared not to have undertaken standardisation activities as a lack of consistency in marking across units was noted in some of their assessment decisions.

Centres should also note that downloaded internet material will be given no credit in future without learners' personal input in the form of summarising, modification, manipulation, selection, editing, application, being comprehensible to the learner.

#### Unit 1: Environmental Influences Upon Ecosystems and Production Zones

The assessment of this unit is likely to be based upon a survey of a specific environment to support decision-making. Therefore, to successfully achieve the unit, it is essential that learners are guided to an appropriate environment and given a realistic scenario, which would potentially provide learners with the opportunity to comment on the influence the scenario would have on plants and animals.

Moderators report that a number of different environments/habitats were surveyed, each using a slightly different, appropriate survey approach. In the vast majority of cases, these surveys appear to have been appropriate, although the recording and grading of the practical element of the unit for the B grid was not always clear. When learners were researching the unit, moderators reported the continued problem of over-reliance on downloaded evidence; this is particularly important where evidence such as food webs has clearly been downloaded with no annotation, comment or reference from the learner. In such cases, marks cannot be awarded.

#### Report on individual Learning Outcomes

#### LO1.1 and LO1.2

These LOs relate to basic ecology and classification, and are easy to relate to other subjects such as Biology and Geography for internal standardisation purposes. The LOs are knowledge based, and LO1 is differentiated by the level of detail required, e.g. "in detail" and "thoroughly" for Mark Bands (MBs) 2 and 3 for LO 1.1. For LO 1.2, the differentiation is quantitative, with "some", "majority" and "most" being the command words as the MBs progress. If all organisms are included in the definition, it is unrealistic for Level 2 learners to even achieve "some". Therefore concentrating on a few major taxa would be realistic and achievable (e.g. chordates, angiosperms), and this is an approach that most centres seem to have adopted effectively.

#### L02.1

This LO requires learners to show understanding and undertake research, with the differentiation observed via the research undertaken. In practice, the level of understanding is likely to be a result of the level of research undertaken, so the standard of research can be inferred from the quality of the work produced.

### LO 2.2

Learners are required to demonstrate understanding of potential changes to the environment caused by climate change, with differentiation evident by the detail of the evaluation. As the likely changes as a result of climate change are largely conjecture (e.g. as temperature rises, annual plant growth cycles shorten, but increases in carbon dioxide may compensate), any plausible response is acceptable. Examples could include sea level rise (via thermal expansion or ice sheets melting), or northern migration of species.

#### L03.1

This is a straightforward LO, requiring learners to produce a plan for a habitat survey, with differentiation occurring via the detail presented. To aid internal standardisation, evidence for this LO can be cross-referenced against other subjects requiring a habitat survey. However, as with all assessment foci from LO3, this survey must relate to decision making; if no reference is made to this aspect, then not all of the marks from MB1 can be awarded. This issue was noted within some of the work submitted for this series.

#### LO 3.3

For this LO, learners are required to interpret the data that they collected. Unlike LO3.1, this LO is differentiated by the quantity between MB1 and MB2, with "some" and "detailed" being the active verbs. MBs 2 and 3 are differentiated via "clear" for MB3, therefore there is a quality statement. Any appropriate interpretation of the data collected by the learners is acceptable.

#### LO 3.4

This LO allocates marks for the communication of conclusions derived from the survey. For any given mark band, this communication must include two audiences. The differentiation arises from the level of relevance of the evidence between MBs 1 and 2 (note: irrelevant evidence is not acceptable for MB1). The appropriate active verb differentiating MB2 and MB3 is "clear". Therefore it is difficult to differentiate on purely qualitative or quantitative grounds, so a combination of the two is required. Centres need to ensure that the learners clearly state the nature of the audience that they are addressing, and ensure that the two examples are sufficiently contrasting. This was not evident in some of the work sampled for this series.

Grid B contains two LOs. LO3.2 differentiates via group working, commitment and initiative, and LO 3.5 differentiates in terms of review, and acting on the review. In both cases, the LOs are quantifying practical skills, and it is likely that cohorts will contain individuals for whom there is little correlation between the marks awarded for the A and B grids (as was noted in some cases this series). It is essential, however, that assessors provide sufficient detail within the assessor's observations to justify the award of marks for Grid B.

# Unit 2: Working in Environmental and Land-based Organisations

This unit is designed to allow learners to develop an understanding of the Environmental and Land-based sector, and to report their understanding. There was little systematic misinterpretation between centres, even in the same consortia, so the report will discuss issues under each LO.

#### Report on individual Learning Outcomes

#### L01

To achieve LO1.1, learners are required to identify environmental, land-based and associated industries. Differentiation ("some", Mark Band (MB) 1; "many", MB 2; and "most", MB 3) occurs via quantity, and in most instances, learners have produced lists, with short explanations.

The most effective method of presenting evidence for this assessment focus was observed from learners who presented the data as a spider diagram, and were encouraged to annotate cross-references between different industries in the Environmental and Land-based sector. A common learner mistake was to confuse industries and job titles, for example Agriculture and Farmer.

The title of the qualification, and the word "associated" (in the contents of LO1), take learners well beyond LANTRA's 'footprint' (17 sub sectors), and industries such as recycling, energy production and specialist journalism can be included. Also note that Edexcel classifies Blacksmithing and Metalworking as a Land-based Industry, but LANTRA does not.

#### LO1.2 and LO1.3

For this LO learners have to describe key job roles, qualifications and lifelong learning opportunities in the sector; again, the MBs tend to suggest that marks are awarded for quantitative differences, e.g. "some", "many", and "most" for MBs 1, 2 and 3 respectively. The latter is, in practice, the number of key roles, training opportunities, etc., which are potentially almost endless, therefore evidence from a single sub-sector (such as Horticulture or Countryside Management) is acceptable. Most of the learners usually covered key roles, basic training and entry qualifications, but few cited appropriate life-long learning opportunities, even though the sector has a number of examples, e.g. LANTRA short courses, and professional bodies' CPD. Another problem encountered is that learners download information from careers websites, and do not reference the sources. Features of a learner achieving the upper end of MB 3 would be the provision of a description of a number of key job roles, and of qualifications and training that include appropriate associated life-long learning opportunities. Initial qualifications and training must be appropriate for the sectors cited.

#### L01.4

Where a description of the changing nature of Environmental and Land-based products and/or services in the last 10 years is required, it is also useful for differentiating grades, as the mark bands suggest that qualitative differences are sought (the mark bands being "detail" and "comprehensively" for MB2 and 3 respectively). As the learners are not writing a lengthy discourse, it would be unreasonable to expect the whole sector to be covered, and a representative sector

should be sufficient. Evidence must be from the last 10 years, and should contain references to specific legislation, events or market requirements from this timescale, therefore the major Foot and Mouth Disease outbreak of 2001 is acceptable for the 2010 series, whereas removal of hedges (Hedgerow Regulations 1997) is not (to cite an Agriculture context.) MB3 learners will be able to cite a particular event, describe the effect on the appropriate part of the sector, and accurately describe more general trends. Learners at the top of MB1 are likely to cite specific examples, but not describe the effects, or alternatively, be able to describe trends, but not the reasons behind the changes. The learners who produced the best evidence in this series tended to be those who reported evidence relating to a specific site or business they had visited, and who were able to relate to at least two sectors, e.g. Agriculture and Countryside Management in the case of Natural England Stewardship schemes.

#### LO 2.1 and LO2.2

This outcome requires learners to complete a job application. The evidence should include an assessment of the learner's skills, a CV, a covering letter and a job application form. The MBs attempt to differentiate via the detail of the CV. It is difficult for a 14-16 year old to provide much information in a CV ("detailed" and "thorough" for MBs 2 and 3 respectively), so the difference is likely to be achieved in terms of citing interests, hobbies, etc., and in the "professional" nature of the learning response. As a rough guide for internal standardisation, MB3 learners are likely to have CVs that would impress a potential employer and result in an interview, whereas learners at the top of MB1 are likely to produce all the required evidence, but not necessarily in a form that would guarantee an interview. In exceptional cases, and where stated, if a learner provides a CV alone it may be acceptable without disadvantaging the learner; for example, replying to a job advert requesting that applicants send a "CV and covering letter", which is sometimes seen in the industry trade press.

#### L03.1

This LO requires learners to discuss duties of care towards the environment, plants, animals and other people, with differentiation being achieved as a result of the quality of the discussion, so MB1 is "briefly", MB2 is "in detail" and MB3 is "thoroughly". This LO was not answered particularly well by the majority of the learners this series, with a bias towards lower marks. The better evidence was achieved in work where learners had cited evidence of a site or enterprise known to them, with MB3 learners interpreting the mark band in a known context. Borderline C learners were much more likely to make broad, sweeping, but plausible answers. Evidence considered necessary for learners at the top of MB1 encompasses the 5 needs for animal welfare, the only specific example cited in the contents.

#### L03.2

This LO requires learners to explain employer and employee Health and Safety responsibilities, with the MB descriptors being "some", "many" and "most". The starting point for evidence for this LO is the Health and Safety at Work Act (1974), and in many cases, learners have copied this (or more specifically, interpretations of the Act and specific requirements for a known workplace). The active verb for the LO is "explain", so differentiation can be made regarding the quality of the explanations offered by the learners. Where downloads are used with little explanation, not all the marks from MB 1 can be awarded. The requirement of LO 3.3 is for learners to

discuss legal and ethical obligations, and the information in the unit summary guides assessors towards expecting "other legal and ethical" obligations, therefore evidence cited against LO 3.1 and 3.2 cannot be used for this LO as well. The contents include a list preceded by "e.g.", citing "pay", "reduced packaging", etc., suggesting that any plausible examples could be acceptable, for example "pay the minimum wage", as cited by some learners. The active verbs in the mark bands are: MB1, "discusses", MB2, "discusses in detail" and MB3, "comprehensively discusses"; all mark bands require examples to be cited.

#### LO 4

Most of this mark band is practical, and recorded on Grid B. LO4.1 requires learners to assess risks during work, and to act on the outcomes, with "some", "most" and "many" as the MB verbs. A risk assessment is cited in the contents, so this risk assessment is acceptable evidence, supported by a job card, reflective account or some other learner appraisal. As the moderator is not in a position to know exactly what risks were encountered in a particular situation, the assessor's determination of the active verbs is required. As Grid B is entirely practical, it can be expected that some learners will achieve high marks for LOs 4.2 and 4.3, but perform poorly with LOs from Grid A. It is essential, however, that assessors provide sufficient detail within the assessor's observations to justify the award of marks for Grid B.

## Unit 3: Plant Nutrition, Growth and Breeding

This was the first series for the subject. Evidence was presented mostly in the format of written responses to an assignment brief, but there were opportunities for learners to use a variety of ways including, hand scripted, word processed, sketches, diagrams, photographs, spreadsheets, field notes, and oral/group/PowerPoint presentations.

A range of different types of assessment evidence was encouraged and generally annotation of evidence against specific learning outcomes was clear which facilitated moderation. It would be helpful though to break down the marks for each sub-section of an LO i.e. LO1.1, rather than give a total for the whole LO.

There was however a wide variation between centres giving an explanation or justification of grades - at its best not only had the assessor marked in the body of work what LO and mark band had been achieved but also annotated the mark sheet to justify the mark band awarded, at its worst there was only a mark on the mark sheet. In some portfolios it was also difficult to assess individual contribution to group activities.

It is tempting in the practical LOs to use marking grid B evidence for marking grid A as well. However it is important that there should be concrete evidence that can be moderated for grid A to ensure that important criteria are not inadvertently omitted. It is also important that there must be clear evidence of an individual learner's contribution, of where and how marks were awarded, for grid A, which may not always be the case in group work assessed via grid B. Centres are advised to look carefully at the Evidence Structure table on p.185.

A key issue is one of interpreting the wording of the marking criteria and the assignment briefs. Although centres approached the unit with a fairly similar assignment brief there was a wide disparity in the weighting and attention each centre attached to different parts of the assignment and mark scheme. The most successful centres treated the assignment brief as an integrated whole with the theory of LO1 and 2 feeding directly into the practical aspects of LO3 and 4. This tended to ensure that work was 'applied' and relevant. Where each LO was treated as a discrete entity it encouraged an overdependence on the internet for LO1 and 2 (there was some leeway given here as the first running of this unit, but in future no credit will be given for purely downloaded material), and a misinterpretation of LO3 (which should be practical rather than theory) and the mark scheme (which was broken down into small bits and point marked rather than levels marked).

This unit requires learners to undertake a single assignment involving the planning and management of growing plants for commercial and non-commercial objectives. Most centres had delivered and assessed this unit in an appropriate manner. However it is very much an applied practical unit and clearly it is difficult to provide all learners with their own garden or vegetable patch, although it was pleasing to note that this had been done in the majority of cases. However, centres should not take the easy option and provide whole class- and classroom-based activities (as an analogy a whole class observing a science experiment rather than each individual carrying out the experiment), which results in learners being presented with the findings, and very little differentiation between their work.

The practical areas of this unit (LO3 and 4) were approached through a range of methods and activities. Some centres had managed to provide their learners with

plots of land to grow their plants and this had clearly stimulated them - there was a lot of implicit evidence of learners involvement and achievement. However they were not scoring particularly well in marking grid A, where marks were often downgraded during moderation. It is important that explicit evidence is provided - it is suggested that centres look closely at LO4.1 and LO4.3 where a structured approach with outline templates/forms would help learners, who struggle with academic theory, produce assessable material.

Although some learners had evidenced their practical activities in an appropriate manner by including a research log and notes on what was discovered in their portfolios, many simply submitted a presentation of their results. Centres should also note that downloaded material from internet sites e.g. on plant pests and diseases, should not be simply inserted in portfolios without annotating or editing. Although practical-based data was often appropriately presented centres are reminded that learners must be able to summarise and analyse this material and other research findings and apply it to the end objective of the assignment to gain the highest marks.

Particular heed needs to be taken of the following:

- Downloaded internet material in future will be given no credit without learners' personal input in the form of summarising, modification, manipulation, selection, editing, application, being comprehensible to the learner.
- Oral presentations/observed activities if marks for these are to be awarded in marking grid A, concrete, explicit evidence related specifically to an individual learner needs to be provided.
- Maximise marks for less academically inclined learners by supporting practical work with as detailed evidence as possible, in particular for LO3.1, LO4.1 and LO4.3.
- Treat unit as an integrated whole to ensure relevance, applicability and levels marking

### Unit 4: Animal Nutrition, Growth and Breeding

This is a work-related subject which strives to link theory and practice. This approach will always require learners to articulate how animals are used and/or cared for in a wide variety of environmental and land-based industries such as agriculture, food production, wildlife conservation, sport, leisure and recreation.

The applied purpose of this unit is to enable learners to develop and implement animal care programmes to meet commercial and non-commercial objectives. The goal of this unit was to give learners the knowledge and understanding required to care for, feed and safely handle animals with due regard to current legislation. Learners were required to:

- care for animals, plan care programmes that meet their needs, keep nutritional records and develop their skills in checking animal health and welfare.
- to develop their knowledge of the feeding behaviour and dietary requirements of a range of wild and domesticated animals and of how commercial animal feeds meet their nutritional needs.
- to find out about breeding programmes and the use of genetics in this process.

This meant that it was essential that centres stress to learners the need to adhere to the Learning Outcomes and Assessment Criteria in order to prepare the learners adequately to demonstrate their practical experiences. Failure to do this restricted the amount of credit that learners could score beyond Marking Band 1 (See Marking grid A) for their responses.

Project reports should ensure that learners are aware of the requirements of assessment levels which are used at this level especially designing their own format for keeping nutritional records demonstrating appropriate functional skills. Credit was given for evidence showing signs of animal ill health which was demonstrated through good quality visual records where necessary. Strong learners' reports showed written records and other evidence including diagrams, graphs or charts which were essential to show their ability to correctly care for animals.

Centres should ensure that all the activities included in the project are used as evidence to meet the Learning Objectives according to the Assessment Criteria before learners work is submitted for assessment.

Different types of assessment evidence were encouraged and some centres should be commended for annotation of the evidence against specific learning outcomes which was helpful in facilitating moderation. Nonetheless few portfolios included any explanation or justification of grades awarded by centre assessors. Also in some portfolios it was difficult to assess individual contribution to group activities. This was mainly due to well organised field activities which were followed up with group participation resulting in almost identical projects.

#### Report on individual Learning Objectives

#### LO 1

Learners described Animal Nutrition, Growth and Breeding showing some degree of competence. Appropriate expansions resulted in most learners achieving good marks for this LO. Centres should be commended for using specific examples as evidence of feeding behaviour and nutritional requirements which was very helpful. This LO was the outcome that was generously graded at the lower end of the mark scale but rather harshly at the higher end.

#### LO 2

This was the LO that centres tended to mark harshly at the top end of the mark range. Learners were struggling to give accurate information about animal breeding especially the use of genetics and selection. Centres are advised to follow the learning objectives closely and make sure all areas are covered before the learners hand in their projects.

#### LO 3

This was generally accurately assessed, although in a number of cases, the assessors were rather harsh in assessing LO 3.1. Although most learners were not able to produce plans and nutritional records for animal care programmes, their activities in caring for animals was sufficient evidence. Although this evidence would not score high in this instance some credit should be given and an explanation accompanied in the evidence section. LO 3.6 was not very well covered as learners failed to give a review of animal care. They could have easily scored all the marks if they had gone back to their practical work and present some recommendations. The centres are advised to prepare learners for this higher order skill of being able to review routine work and come up with recommendations.

#### General

- 1. Raw data was used effectively and presented learners with an opportunity for originality.
- 2. There is however a need to improve on data presentation by including different types of graphs and pie charts.
- 3. Learners' work presentation can also be improved by making sure that the page numbers follow, especially when learners include appendices. Including a table of contents is very helpful.

#### Unit 6: The Importance of a Sustainable Environment to Society

This is a work-related subject which strives to link theory and practice. The applied purpose of this unit is to enable learners to develop protection strategies to ensure sustainable land use. Learners were required to:

- study what society can do to preserve the environment.
- study the impact of human activities on a habitat, species or ecosystem and decide on the best way to protect it.

This meant that it was essential that centres stress to learners the need to adhere the Learning Outcomes and Assessment Criteria in order to prepare learners adequately to use their practical experiences. Failure to do this restricted the amount of credit that learners could score beyond Marking Band 1 (See Marking grid A) for their responses.

Project reports should ensure that learners are aware of the requirements of assessment levels which are used at this level especially using appropriate techniques to measure environmental impacts caused by commercial or recreation land use, focused on a specific habitat, species or ecosystem. Credit was given for evidence using findings to develop and organise a protection strategy. Strong learners' reports showed written records and other evidence including diagrams, graphs or charts.

Centres should ensure that all the activities included in the project are used as evidence to meet the Learning Objectives according to the Assessment Criteria before learners work is submitted for assessment.

Centres should also be commended for meeting all administrative requirements as identified during this moderation series:

- submission deadlines were generally met
- correct learner record sheets and authentication statements were included, and
- marks were correctly entered on paperwork

Nevertheless, some centres still need to improve on meeting deadlines and the inclusion of accurate paperwork facilitated smooth moderation.

# Report on individual Learning Objectives

#### LO 1

Most learners were able to describe the meaning and value of sustainability drawing on local, national and international examples. Descriptions of the approach of key stakeholders to environmental sustainability were satisfactory. Aims and consequences of legislation that protects the environment were identified.

#### LO 2

Most learners were able to explain some environmental, economic and social factors that affect the way in which communities and business use and manage their resources. Explanations of how sustainable management of resources can support economic stability and environmental sustainability were satisfactory but could be better. Centres need to develop this area further in order to prepare the learner adequately for this LO.

#### LO 3

This learning objective, addressing environmental protection strategies proved more problematic. This acted as a discriminator with too many learners not reaching the mark band 1 descriptors. The material submitted for environmental protection strategy planning saw most learner performances tailing off with some producing no work. Planning management strategies is a key feature of the diploma and centres are advised to address this issue and the way in which learner marks for this LO tailed off this year in their preparations for 2010/11.

#### General

The design of the assignment brief would have benefitted from greater clarity in the form of more structure and guidance within each task. Level 2 learners would gain from this, especially when faced by the challenge of strategy planning. This latter learner outcome is where teacher attention in 2010/11 needs to be focussed e.g. few made any real in-roads into the matter of concluding and reflecting on strategies for LO3.3.

#### Unit 7: Environmental Monitoring

A key issue in this unit was one of interpreting the wording of the marking criteria and the assignment briefs. Although centres approached the unit with a fairly similar assignment brief—there was a wide disparity in the weighting and attention each centre attached to different parts of the assignment and mark scheme. The most successful centres treated the assignment brief as an integrated whole with the theory of LO1 feeding directly into the practical aspects of LO2. This tended to ensure that work was 'applied' and relevant. Where each LO was treated as a discrete entity it encouraged an overdependence on the internet for LO1 (there was some leeway given here as the first running of this unit, but in future no credit will be given for purely downloaded material).

LO3 is demanding and although centres had provided their learners with structured guidance only a few learners were able or inclined to tackle this area fully. It will be a challenge to centres to find how they can maximise marks for their less academically-inclined learners in this LO. Although mark band 3 and top of mark band 2 might be precluded by the amount of support centres give their learners this might be better than getting 0 marks. For instance MOT testers use a format to enable very detailed analysis of a vehicle, but it is little more than a tick sheet, even down to the recommendations (though there is room for additional comment).

Learners are required to undertake a single assignment surveying an environment to determine the impact of Environmental and Land-based enterprises in order to support decision making. Centres had delivered and assessed this in an appropriate manner. It was pleasing the effort they had gone to access interesting and relevant environments for their learners. As a result learners achieved better in the practical, applied LOs than for some other units undertaken. Of particular value was that learners could achieve the highest marks succinctly while still maintaining clear discrimination between the other mark bands i.e. quality really was the key criterion.

The research area of this unit, LO2, was approached through a range of survey methods and activities with learners undertaking visits to a variety of environments. Although some learners had evidenced their research activities in an appropriate manner by including a research log and notes on what was discovered in their portfolios, many simply submitted a presentation of their results. Centres should also note that downloaded material from internet sites, should not be simply inserted in portfolios without annotating or editing. Although survey data was often appropriately presented, centres are reminded that learners must be able to summarise and analyse this material for the purpose of making a recommendation to gain the highest marks.

The outcomes of research activities were presented in a number of ways. With the PowerPoint presentations some centres had allowed learners to work in pairs or small groups for this activity. Whilst this is not inappropriate centres must ensure that each learner's individual contribution to the outcome is clearly evidenced. Furthermore, if parts of this presentation are to be assessed by marking grid A, there must be clear evidence of the learner's contribution, of where and how the marks were awarded. This could be done through a detailed and structured observation schedule.

Particular heed needs to be taken of the following:

- Oral presentations/observed activities if marks for these are to be awarded in marking grid A, concrete, explicit evidence related specifically to an individual learner needs to be provided.
- Maximise marks for less academically inclined learners by supporting practical work with as detailed evidence as possible, in particular for LO2.4, and providing structured templates for high order skills in LO3.1 and LO3.2
- The assessment criteria in marking grid A are levels marked and centres need to carefully apply the discriminating factor at each band to ensure that marks are not downgraded at moderation e.g. LO1.1, mark band 1requires an 'explanation' therefore 'description' is insufficient, and for mark band 2 this needs to be 'in detail' therefore a general outline or generic explanation is also insufficient.

#### Unit 8: Sources and Uses of Energy

A key issue in this unit is one of interpreting the wording of the marking criteria and the assignment briefs. Although there was a similar assignment brief across a number of centres there was a wide disparity in the weighting and attention each centre attached to different parts of the assignment and mark scheme.

The unit requires learners to undertake a single assignment to show they know the different sources of energy, understand the importance of using energy efficiently and ways of improving energy efficiency, carry out an energy audit and recommend energy efficiency improvements.

Centres had delivered and assessed this unit in a realistic and achievable manner, with an applied approach enabling most LOs to be achieved. However centres need to check carefully that a task can meet the LO criteria fully and that work is not too brief or limited in coverage.

The research area of this unit LO 3 was undertaken using appropriate methods and activities. It is tempting in the practical LOs to use marking grid B evidence for marking grid A as well. However it is important that there should be concrete evidence that can be moderated for grid A to ensure that important criteria are not inadvertently omitted. It is also important that there must be clear evidence of an individual learner's contribution, of where and how marks were awarded, for grid A, which may not always be the case in group work assessed via grid B. Centres are advised to look carefully at the Evidence Structure table on p.286.

Although some learners had evidenced their audit in an appropriate manner by including a log and notes on what was discovered, many simply submitted a presentation of their results. Although this may have been appropriately presented, centres are reminded that throughout the Diploma 'application' is the key concept, and learners need to be able to summarise and analyse their findings for a useable purpose, in order to gain the highest marks.

Areas that need attention are:

- LO1 Tended to be too brief and poorly represented in evidence.
- LO2 Tended to be brief and generic. Assignment brief would benefit from having assessment criteria signposted within it to guide learners to higher levels and reduce the risk that items may be omitted. Also specific examples would go towards meeting the 'applied' ideal.
- LO3 Centres should use this section to maximise marks for their learners who are proficient at practical work, but less so with theory. A structured approach with supporting resources will help ensure learners (i) complete a plan for the audit in as much detail as possible (ii) log and record their results, again in as much detail as possible. It must be demoralising for these learners and centres to score well in marking grid B, but have their marks in grid A downgraded at moderation. However the two key points are:
- there must be concrete evidence of a learner's individual achievement
- the criteria which are 'levels-based' must be strictly met

# **Grade Boundaries**

Level 2 Unit 1: Environmental Influences Upon Ecosystems and Production Zones

	Max. Mark	Α*	Α	В	С
Raw boundary mark	75	67	54	42	30
Points Score	10	8	6	4	2

Level 2 Unit 2: Working in Environmental and Land-based Organisations

	Max. Mark	A*	Α	В	С
Raw boundary mark	75	66	53	40	28
Points Score	10	8	6	4	2

Level 2 Unit 3: Plant Nutrition, Growth and Breeding

	Max. Mark	Α*	Α	В	С
Raw boundary mark	75	69	55	42	29
Points Score	10	8	6	4	2

Level 2 Unit 4: Animal Nutrition, Growth and Breeding

	Max. Mark	Α*	Α	В	С
Raw boundary mark	90	81	66	51	36
Points Score	10	8	6	4	2

Level 2 Unit 6: The Importance of a Sustainable Environment to Society

	Max. Mark	Α*	Α	В	С
Raw boundary mark	75	66	53	40	28
Points Score	10	8	6	4	2

Level 2 Unit 7: Environmental Monitoring

	Max. Mark	A*	Α	В	С
Raw boundary mark	75	65	52	40	28
Points Score	5	4	3	2	1

Level 2 Unit 8: Sources and Uses of Energy

	Max. Mark	A*	Α	В	С
Raw boundary mark	75	69	56	43	30
Points Score	5	4	3	2	1

#### Notes

**Maximum Mark (raw)**: the mark corresponding to the sum total of the marks shown on the mark scheme or mark grids.

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

Please note: Principal Learning qualifications are new qualifications, and grade boundaries for Controlled Assessment units should not be considered as stable. These grade boundaries may differ from series to series.

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