



EXAMINERS' REPORTS

LEVEL 3 DIPLOMA/EXTENDED DIPLOMA IN ENVIRONMENTAL SCIENCE

JANUARY 2019

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LEVEL 3 DIPLOMA/EXTENDED DIPLOMA IN ENVIRONMENTAL SCIENCE

Level 3

January 2019

UNIT 1 - MANAGING ENERGY FOR A SUSTAINABLE FUTURE

General Comments

Administrative work was correctly submitted, with authentication sheets signed by the candidates. Most of the work was very well annotated and AC's were clearly referenced in the margin but the lack of page numbers made the moderation process more difficult.

Task 1

AC4.1: The planning section of the experiment was generally carried out very well. Achievable time scales were not clearly set.

Task 2

AC4.2: This AC was generally well done by candidates.

AC4.3: To achieve the top band in this criterion, candidates should note the precision of the instruments used (e.g. in the apparatus list the ammeter has a precision of ± 0.001 A).

AC4.4: This AC was generally done well by all candidates. Although there was incidents of non-consistent precision in the recorded results.

Task 3

AC4.5: This AC was generally addressed well.

AC4.6: The graphs that were plotted were of a good quality. The number of graphs plotted was less than in previous sessions. Sankey diagrams were rarely drawn.

AC4.7: Evaluation of procedures were basic.

AC5.1: This AC was generally well done.

AC5.2: To achieve a top-band mark in this criterion, candidates should ensure suitable sizes and scales are consistently used and the plots are connected by an appropriate line of best fit.

Task 4

AC2.1: The majority of candidates achieved bottom band marks. To achieve the higher marks, knowledge and understanding must be above the level expected at GCSE. Candidates also need to apply mathematical formulae to achieve higher band marks. In addition, candidates need to define the quantities that they are going to use in their investigations.

AC2.3: The majority of candidates performed badly in this AC. For higher marks there should be some description of the working of both devices in a reasonable amount of detail.

AC3.2: This criterion was generally poorly attempted with significant omissions.

AC5.3: Very few candidates attempted Sankey diagrams.

AC5.4: In this criterion the candidates should make recommendations from their own work.

AC5.5: Most candidates produced structured reports.

Activity 2

Task 1

AC3.1: This criterion was generally well done by candidates.

AC4.1: Candidates attempted to state what was required but made little effort in time planning.

Task 2

AC4.5: Most candidates made good attempts at calculations involving R- and U-values, and pay-back times.

AC4.6: When this criterion was attempted, candidates generally plotted a bar chart.

AC4.7: Candidates made attempts at evaluating their procedures but these lacked detail and justification of recommendations

AC5.1: Candidates generally did not present/ summarise their results in tables

AC5.2: Lack of line graphs limited candidates to bottom band marks.

Task 3

AC1.1: Candidates need to use the accepted definition of sustainability and then expand on this by giving examples of methods of reducing dependence on non-sustainable fuels.

AC1.2: Candidates seemed to have difficulty with this criterion. There are four areas mentioned in the specification; if only one area is discussed then candidates can achieve the lower band; if two areas are discussed or three areas (but done poorly) candidates can achieve middle band marks; all four areas done well will allow candidates to achieve top band marks.

AC2.2: To get more than bottom band marks, as well as basic conservation of energy, candidates need to explain conduction and convection in terms of particles, what is meant by thermal conductivity, and how texture and colour effect absorption and emission of IR radiation, and relate these things to the house in question.

AC2.3: The working of a solar panel needs to be explained in detail to obtain top band marks for this criterion. Candidates again need demonstrate knowledge and understanding of the points in the specification in the context of the assessment.

AC3.2: Candidates were generally able to explain how energy is lost from the building as a whole.

AC3.3: This criterion was generally well attempted.

AC5.3: Few Sankey diagrams were drawn for this task.

AC5.4: This criterion was generally well done.

AC5.5: Most candidates wrote structured reports using appropriate language, punctuation and grammar.



WJEC
245 Western Avenue
Cardiff CF5 2YX
Tel No 029 2026 5000
Fax 029 2057 5994
E-mail: exams@wjec.co.uk
website: www.wjec.co.uk