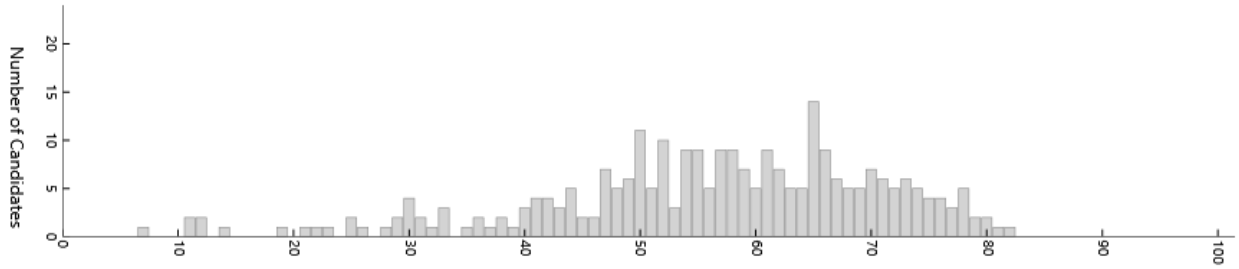
Government of **Western Australia**
School Curriculum and Standards Authority

Summary report of the 2016 ATAR course examination: Earth and Environmental Science

Year	Number who sat	Number of absentees
2016	272	11

Examination score distribution



Summary

Attempted by 272 candidates	Mean 55.83%	Max 81.25%	Min 7.00%
Section means were:			
Section One: Multiple-choice	Mean 11.04(/15)	Max 15.00	Min 2.00
Section Two: Short answer	Mean 29.49(/55)	Max 45.25	Min 2.75
Section Three: Extended answer	Mean 15.64(/30)	Max 26.50	Min 0.50

General comments

Overall, candidate performance was good, with examiners reporting an improved structural quality of answers with fewer candidates failing to attempt questions than in previous years. Most candidates demonstrated a good understanding of the concepts and skills laid out in the course curriculum. Areas of relative strength included non-renewable resources (particularly the understanding of mineral exploration methodology), the production and interpretation of cross-sections and the geological record of climate change. Areas of relative weakness included metamorphic geology and renewable resources, in particular the distinction between energy and harvestable natural resources. Over 97% of candidates attempted one of the final optional questions, indicating the examination was of appropriate length.

Advice for candidates

- It is important that you read questions fully before beginning your response, paying particular attention to the key verbs used in the question (list, describe, explain etc.).
- Ensure that your answer addresses the actual question as posed in the written paper, rather than simply presenting all the information you can recall around a particular topic, or laying out a pre-prepared answer on the general subject of the question. Markers cannot award credit for information provided outside the contextual framing of the question.
- Where possible, provide specific real examples in support of your answer, particularly in longer-form responses.
- Your examination preparation should cover the entire syllabus. The examination is written with the express intention of providing a fair and balanced coverage of the syllabus, and it is unlikely that there will be any substantive areas on which questions are not posed.
- To gain full marks in a question, you must address all required parts in your response, paying particular attention to specific instructions. If a question calls for a labelled

diagram, for example, specific marks will be allocated to the quality and relevance of both the diagram and the accompanying labelling.

Advice for teachers

- Production of informative diagrams recurs as a common point of weakness in students. This may be a skill worth practicing in class.
- Ensure that students have had sufficient practise of the more complex skills (such as geological cross-sections) as these require substantial repetition for mastery.
- While the core subject matter remains unchanged, the examining panels will continue to consider new ways in which candidates might be asked to express their knowledge and skills.

Comments on specific sections and questions

Section One: Multiple-choice

Attempted by 272 candidates	Mean 11.04(/15)	Max 15.00	Min 2.00

Section One produced an overall mean of 74%. The highest raw means were achieved in questions 3, 4, 5, 9, 12 and 14, with results over 0.80. Question 2 produced the poorest raw mean of 0.35 (the only question below 0.5). All candidates attempted all questions.

Section Two: Short answer

Attempted by 272 candidates	Mean 29.49(/55)	Max 45.25	Min 2.75

Section Two produced an overall mean of 54% with individual question means ranging from 36% to 71%. Questions 17 and 19 had means of 65% or higher. Questions 18, 21 and 24 had means below 50%. Over 93% of candidates attempted each question.

Section Three: Extended answer

Attempted by 266 candidates	Mean 15.64(/30)	Max 26.50	Min 0.50

Section Three produced an overall mean of 52%, with individual question means ranging from 51% to 57%. Nearly equal numbers of candidates attempted the two optional questions (136 against 130). Mean marks were higher for question 27 (57% against the 51% of question 28). The principle point of difference in responses to the two lay in a structurally poor answer to part (b) of question 28, with many candidates failing to link statements on the fundamental properties of magma back to the contextual framing of the question around potential hazard.