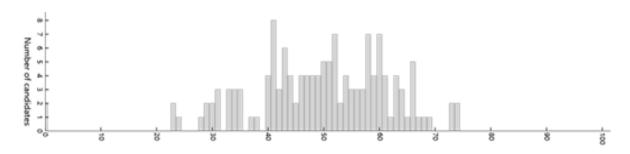![Government of Western Australia - School Curriculum and Standards Authority](logo)

Summary report of the 2021 ATAR course examination report:
Earth and Environmental Science

Year	Number who sat	Number of absentees
2021	142	1
2020	165	2
2019	185	1
2018	233	4

The number of candidates sitting and the number attempting each section of the examination can differ as a result of non-attempts across sections of the examination.

Examination score distribution–Written

Summary

The low mean mark of 49.13% represents a continuing point of concern. This mean arrests a decreasing trend noted over the previous three years, but remains lower than desired.

Attempted by 142 candidates   Mean 49.13% Max 74.00% Min 0.00%

Section means were:
Section One: Multiple-choice	Mean 64.74%		
Attempted by 142 candidates	Mean 9.71(/15)	Max 15.00	Min 0.00
Section Two: Short answer	Mean 47.69%		
Attempted by 140 candidates	Mean 26.23(/55)	Max 44.00	Min 0.00
Section Three: Extended answer	Mean 43.97%		
Attempted by 136 candidates	Mean 13.19(/30)	Max 26.00	Min 0.00

General comments

Engagement appears to have remained high throughout the examination. Individual response patterns largely seem to conform with expectations, both between sections (with candidates progressively more challenged through the sections) and within individual questions. Higher marks were typically achieved in the early parts of each Short answer and Extended answer question, with later parts designed to elicit synthesis and higher-order thinking proving a greater challenge and differentiating stronger candidates.

Advice for candidates
- When answering questions, you need to demonstrate insight and understanding of the syllabus content, and relevant skills alongside the recall of specific facts.
- Ensure your answers are well-structured, logical, and supported by examples where appropriate.
- The examination is constructed to accommodate different styles of thinking and expression. In some circumstances, annotated illustrations, dot points and tables can provide an effective approach to presenting an answer, even when not explicitly called for in a question.
- Identification and discussion of real examples can be a valuable element of your response, but only insofar as the example(s) are used to demonstrate knowledge and understanding of specific scientific principles or knowledge relevant to the question.

Advice for teachers
- The syllabus for this course is largely geared towards practical insight and understanding of processes as they affect the real world, rather than in-depth knowledge of formal scientific theories. Students need to be exposed to this type of questioning.
- Refer students to current events that have relevance to the syllabus content wherever possible.
- Ensure that students are provided with questions that test the practical understanding of constructing and interpreting representative diagrams.
- Case studies and examples do not need to be drawn from a specific geographic region. Use diverse examples with students, where these illuminate the syllabus content in an informative fashion.

Comments on specific sections and questions
Section One: Multiple-choice (15 Marks)
Candidates performed well in this section. The range of question difficulty is reflected in the mean marks, which ranged from 20% to 82%. Although more challenging questions such as Questions 3 and 5 received fewer correct responses (with mean marks of 43% and 37%, respectively), results were still positively correlated against candidate performance, indicating more able candidates were less likely to choose one of the plausible distractors.

Section Two: Short answer (110 Marks)
The mean of 47.69% for the section represents a slight increase from the mean of 45.24% achieved in 2020. Candidate performance year-on-year has improved overall, particularly in questions seeking development of understanding from basic principles and interpretation of data (with best performances on Questions 23 and 22), but this is masked by poor performance on Question 17 on iron ore development**.**

Section Three: Extended answer (30 Marks)
Candidates were required to complete Question 24 and then choose to answer one of the other questions (Question 25 or 26). Candidate performance in this section was notably below expectation, with the mean mark of 43.97%. Only approximately one quarter of the cohort chose to attempt Question 25, and candidate performance on this question was notably poor, with a mean mark of 4.22 out of 15 compared to 7.31 out of 15 for Question 26.