

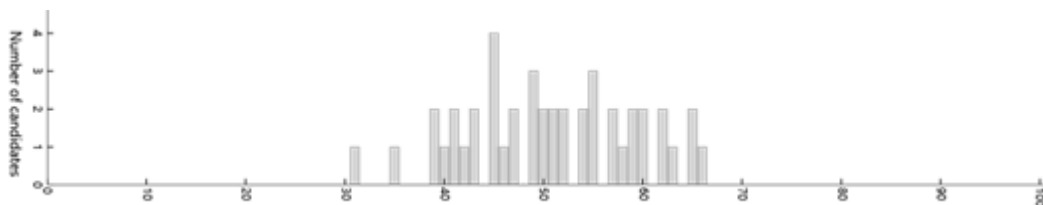


## Summary report of the 2021 ATAR course examination report: Integrated Science

Year	Number who sat	Number of absentees
2021	44	1
2020	42	0
2019	68	3
2018	79	0

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 examination provided questions assessing a wide variety of points in the syllabus. It provided opportunities for candidates of different abilities to demonstrate their knowledge and understanding of the syllabus content. The examination appeared to have been of appropriate length, with almost all candidates attempting every question across the three sections of the examination.

Attempted by 44 candidates                      Mean 50.82%                      Max 66.32%    Min 31.39%

Section means were:

Section One: Multiple-choice	Mean 68.52%		
Attempted by 44 candidates	Mean 13.70(/20)	Max 18.00	Min 9.00
Section Two: Short response	Mean 47.05%		
Attempted by 44 candidates	Mean 23.53(/50)	Max 34.07	Min 12.39
Section Three: Extended response	Mean 45.30%		
Attempted by 44 candidates	Mean 13.59(/30)	Max 19.25	Min 6.50

### General comments

Candidates demonstrated understanding of core syllabus content from Science Understanding and Science Inquiry Skills in both Unit 3 and Unit 4. Overall, candidates achieved higher results in the Multiple-choice section compared to the Short answer and Extended response sections, with some non-attempts seen. In questions requiring explanations, candidates generally did not achieve as highly.

### Advice for candidates

- Read questions carefully and ensure you understand what the question is asking, and provide answers that specifically address each question.
- When asked to provide two or more points about a particular aspect, ensure each point is distinctively different.
- Ensure answers to questions are succinct and to the point.

### *Advice for teachers*

- Examine past examination papers to assist in understanding the extent to which each syllabus point should be taught.
- Direct your students to the Glossary of terms included with the syllabus document to familiarise them with the specific scientific terms used in the examination.
- Expose students to past examinations and marking keys, modelling exemplary answers in comparison to satisfactory answers.

### **Comments on specific sections and questions**

#### **Section One: Multiple-choice (20 Marks)**

The Multiple-choice section of the examination was the most successfully answered section of the examination. All candidates completed every question in this section, with a mean of 68.52%. All candidates answered Question 4 correctly and most answered Questions 2, 5, 9, 12 and 19 correctly (means of at least 80%). Questions 1, 6, 15, 17 and 18 were more challenging questions, with at most 50% of candidates answering each correctly.

#### **Section Two: Short response (113 Marks)**

With a mean of 47.05%, results for this section were lower than last year (mean of 55.03%), while being close to the 2019 mean of 48.77%. Most candidates attempted parts of all questions throughout this section. Although challenged by some questions, opportunities were provided to score marks in question parts throughout the section. The highest mean was achieved on Question 25 (58.8%), with candidates demonstrating a sound understanding of data representation in a graph, and calculation of heat energy using specific heat capacity. Question 21 was done poorly by candidates, who generally showed limited understanding of the effect of changing rainfall patterns on the water cycle and water resources.

#### **Section Three: Extended response (60 Marks)**

All candidates attempted the two questions in this section. Candidates were less successful with this section compared to Section Two. The mean of 45.30% was lower than the mean in 2020 (57.97%) but similar to the 2019 mean (49.28%). Section Three offered candidates the opportunity to demonstrate their skills in interpreting text, diagrams (including a graph) and data. Generally, while candidates were able to identify and name features, causes, strategies, processes etc., across both questions, they struggled with providing sufficient detail to receive full marks for their descriptions and explanations.