Scholarship

2013 Assessment Report

Earth and Space Science

COMMENTARY

This was the first Earth and Space Science (ESS) New Zealand Scholarship paper so candidates only had the guidance indicated by the sample paper written in 2012. This was also the first time that this examination (which replaced the earlier Science New Zealand Scholarship) used a resource booklet. This booklet was an effective way of providing resources for the context rich questions. The candidates' answers showed good use of the resource material provided in the booklet.

The cohort was small, which was to be expected, for this first year of the subject ESS at Level 3 and New Zealand Scholarship. Also, candidates from the other sciences would not have been as likely to enter for ESS New Zealand Scholarship as they once did the earlier Science New Zealand Scholarship.

The majority of candidates attempted every question although the answers were of variable length and quality. A few students wrote long, rambling often inaccurate answers.

Pleasingly, the marks for each of the three questions were reasonably consistent.

Fewer scholarships were attained than the possible 3% this year because not enough candidates reached the standard described by the new Performance Standard. This is expected to change in the future as candidates are better informed about the expectations of the new subject.

SCHOLARSHIP WITH OUTSTANDING PERFORMANCE

Candidates who were awarded Scholarship with Outstanding Performance typically:

- covered all aspects of the questions
- identified, applied and integrated clearly relevant ESS principles and knowledge with insight and perception, e.g. in Question One by understanding how processes on and around New Zealand contributed towards all aspects of the global carbon cycle
- applied consistently knowledge and skills to unfamiliar and complex contexts
- exhibited a thorough understanding of relevant Nature of Science skills, e.g. in Question Three by showing understanding of how quite different pieces of scientific evidence can be used together to accurately interpret scientific observations
- used well labelled and appropriately drawn diagrams to illustrate key points
- used all of the resource material carefully and thoughtfully with independent reflection and, at times, extrapolation e.g. in Question Two by recognising key tectonic features and inferring past geological history on Mars
- expressed ideas clearly and precisely with confident use of relevant scientific language and the justification of some statements
- logically structured their answers in essay form, using paragraphs to separate distinct aspects of the question.

SCHOLARSHIP

Candidates who were awarded Scholarship but not Scholarship with Outstanding Performance typically:

- covered most aspects of the questions
- identified and applied relevant ESS principles and knowledge, e.g. in Question One by understanding how processes on and around New Zealand contributed towards some aspects of the global carbon cycle
- applied knowledge and skills to unfamiliar and complex contexts
- exhibited relevant Nature of Science skills, e.g. in question three by showing understanding of how scientific evidence can be used to interpret scientific observations
- used labelled and appropriately drawn diagrams to illustrate points
- used all of the resource material carefully e.g. in Question Two by recognising some tectonic features and inferring some geological history of Mars
- expressed ideas clearly with good use of relevant scientific language
- logically structured their answers.

OTHER CANDIDATES

Candidates who were not awarded Scholarship or Scholarship with Outstanding Performance typically:

- read the questions and the resource material incompletely or without good understanding
- wrote their answers in generalisations rather than specifically addressing the requirements of the question
- answered only part of a question
- re-wrote the question or resource material rather than writing an answer e.g. in Question Three only listed the possible geological markers
- identified only some of the ESS principles relevant to each question e.g. in Question Two did not recognise evidence of past tectonic processes on Mars
- answered with insufficient clarity and accuracy
- drew inaccurate or incorrectly labelled diagrams
- applied information and skills inaccurately or incompletely to a new context e.g. in Question One did not apply the Carbon cycle to processes on and around New Zealand.