

Assessment Report

New Zealand Scholarship Earth & Space Science 2017

Standard 93104

Part A: Commentary

Successful candidates used skills and information from both Earth and Space Science and the Nature of Science NZC Achievement Objectives in their answers and exhibited higher level critical thinking and analysis. They had carefully read each question plus the relevant resource material and had taken time to understand the context of the question. Some drew accurate and correctly labelled diagrams.

Some candidates wrote very long answers that only partially answered the questions. Repetition of resource material and class notes only will not enable candidates to reach scholarship standard.

It is important that candidates prepare themselves for the Earth and Space Science Scholarship examination by reading the relevant examination specifications and by making sure that they can apply knowledge to unfamiliar contexts. Gaps in knowledge were obvious in 2017. For example, many candidates did not recognise how shallow, strong earthquakes could affect the position and functioning of moorings and their instruments.

Part B: Report on performance standard

Candidates who were awarded Scholarship with **Outstanding Performance** commonly:

- understood and answered all aspects of each question, making few to no errors
- used prior knowledge of Earth and Space Science (ESS) to expand and enhance answers
- made insightful use of the resources provided
- linked all aspects of their answer into a comprehensive, literate essay
- applied knowledge to unique contexts
- understood the extent of geological time, especially as it applied to the carbon and rock cycles
- understood the challenges of scientific monitoring, especially under hazardous conditions
- qualified general statements, for example the suitability of an exoplanet for life, with more specific information such as the evidence for the possible presence of a water cycle.

Candidates who were awarded **Scholarship** commonly:

- answered most aspects of each question, making only a few errors
- linked the resource material with their own earth and space science knowledge to answer each question
- wrote clearly and coherently

- constructed well-developed points, for example, on the long-term consequences of a warming ocean and ocean acidification
- recognised the effects of hazards such shallow, strong earthquakes on monitoring equipment
- made valid comparisons, for example, between the albedo of exoplanets and known planets and moons.

Other candidates

Candidates who were **not** awarded Scholarship commonly:

- only partially answered questions
- made errors which showed a lack of understanding
- repeated or paraphrased the resources provided
- repeated class material only, for example, on the carbon and rock cycles
- deduced that strong earthquakes affected the flow of the Antarctic Circumpolar Current rather than the monitoring of the ACC
- made simple interpretations of data and photos from the resource booklet only.

Standard specific comments

Earth and Space Science (ESS) Scholarship assesses the Planet Earth and Beyond and the Nature of Science Achievement Objectives (AOs) at Level 8 of the curriculum.

Candidates need to familiarise themselves with the ESS Scholarship specifications which help to clarify the knowledge required.

Aspects of the Nature of Science AOs are assessed as part of a question only. For example, in 2017 Question Two assessed the importance and challenges of scientific research under potentially hazardous conditions. Other Nature of Science skills, such as effective communication, are implicit in the standard.

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Previous years' reports

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