2015 NZ Scholarship Assessment Report

NZQA
NEW ZEALAND QUALIFICATIONS AUTHORITY
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Earth and Space Science

Part A: Commentary

Comment on the overall response of candidates to the 2015 examination.
The cohort sitting Earth and Space Science scholarship was larger in 2015 than in previous years and contained a higher proportion of well-prepared candidates who were at or near the standard required for New Zealand Scholarship. Candidates who were familiar with the curriculum and could use their knowledge and skills to analyse and evaluate information in unfamiliar contexts were able to demonstrate high level critical thinking. Successful candidates were able to integrate skills and information from both Earth and Space Science and Nature of Science Achievement Objectives in their responses. They carefully read each question and the relevant resource material and took time to understand the context of the question. Many drew accurate and correctly labelled diagrams to support their responses. Although every effort is made to construct three questions of equal difficulty Question 2 proved to be harder to answer compared with Questions 1 and 3. However candidates who read and considered in depth the resource booklet wrote well thought out answers.

Part B: Report on performance standard

Scholarship with Outstanding Performance	Candidates who were awarded Scholarship with Outstanding Performance commonly: • covered all aspects of the questions and provided sophisticated answers showing perception and insight • linked multiple ideas and consistently applied knowledge and skills to unfamiliar and complex contexts e.g. in the question about the distribution of a marine species they recognised that several cores needed to be examined both vertically within a core, and horizontally between cores • made few to no factual errors and wrote clear, logical and literate answers with confident use of relevant scientific language • used all of the resource material carefully and thoughtfully with independent reflection and, at times, extrapolation • identified, applied and integrated relevant Earth and Space Science and Nature of Science principles and knowledge with insight and perception e.g. as the red dwarf star aged considered the effect on both habitable zones • demonstrated, and used effectively, relevant knowledge outside the immediate scope of the question to enhance an answer • used well labelled and accurately drawn diagrams to illustrate key points • justified statements where relevant linking in supporting evidence • logically structured their answers in essay form, using paragraphs to separate distinct aspects of the question.
Scholarship	Candidates who were awarded Scholarship commonly: • covered most aspects of the questions, using the resource material thoughtfully • linked ideas and reasoning in logical ways making made few errors • identified and applied relevant ESS principles and knowledge e.g. candidates were able to show the relationship between convection cells, climate belts and the consequences of the expansion of the troposphere • applied knowledge and skills to unfamiliar and complex contexts e.g. considered another habitable zone around a red dwarf based on methane • exhibited relevant Nature of Science skills • used labelled and appropriately drawn diagrams to illustrate points

	• expressed ideas clearly with good use of relevant scientific language • logically structured their answers in paragraphs.
Other candidates	Candidates who were not awarded Scholarship commonly: • exhibited incomplete knowledge and understanding of the Earth and Space Science needed to answer the questions • read the questions and the resource material incompletely and without good understanding • wrote their answers in generalisations rather than specifically addressing the requirements of the question • answered only part of a question e.g. considering habitable zones but not considering how the habitable zones would change as the star aged • reworded the resource material rather than writing an answer to the question • identified only some of the ESS principles relevant in each question • drew inaccurate, incomplete or inaccurately labelled diagrams • applied information and skills inaccurately or incompletely to a new context eg discussed events that may happen rather than considering the analysis of a sediment core.