

SUPERVISOR'S USE ONLY

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93104



Draw a cross through the box (X) if you have NOT written in this booklet



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Scholarship 2025 Earth and Space Science

Time allowed: Three hours
Total score: 24

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should answer ALL the questions in this booklet.

Pull out Resource Booklet 93104R from the centre of this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–16 in the correct order and that none of these pages is blank.

Do not write in any cross-hatched area (⚡). This area may be cut off when the booklet is marked.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE
END OF THE EXAMINATION.**

Question	Score
ONE	
TWO	
THREE	
TOTAL	

ASSESSOR'S USE ONLY

Explore the stages and features of a glaciovolcanic eruption. As there is considerable ongoing ice loss in the region, consider the long- and short-term implications for volcanism in Antarctica.

Explore how shifts in the Subtropical Front have led to the warming of the ocean by the Chatham Rise. In your answer, consider oceanic and atmospheric processes. Furthermore, discuss what effects a continuation of the shift in the Subtropical Front would have on the marine biodiversity and fisheries on the Chatham Rise.

Analyse how seasons on Mars, Uranus, and Neptune would be different to those on Earth by comparing eccentricity, length of orbit, distance from the Sun, and axial tilt. Additionally, evaluate the role that solar radiation plays in the planets' seasons.

**Extra space if required.
Write the question number(s) if applicable.**

QUESTION
NUMBER

Extra space if required.
Write the question number(s) if applicable.

[illegible]

Extra space if required.
Write the question number(s) if applicable.

QUESTION
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