

91193



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD  
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

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SUPERVISOR'S USE ONLY

# Level 2 Earth and Space Science, 2016

## 91193 Demonstrate understanding of physical principles related to the Earth System

2.00 p.m. Thursday 10 November 2016  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of physical principles related to the Earth System.	Demonstrate in-depth understanding of physical principles related to the Earth System.	Demonstrate comprehensive understanding of physical principles related to the Earth System.

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 attempt ALL the questions in this booklet.**

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

Check that this booklet has pages 2–11 in the correct order and that none of these pages is blank.

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

TOTAL

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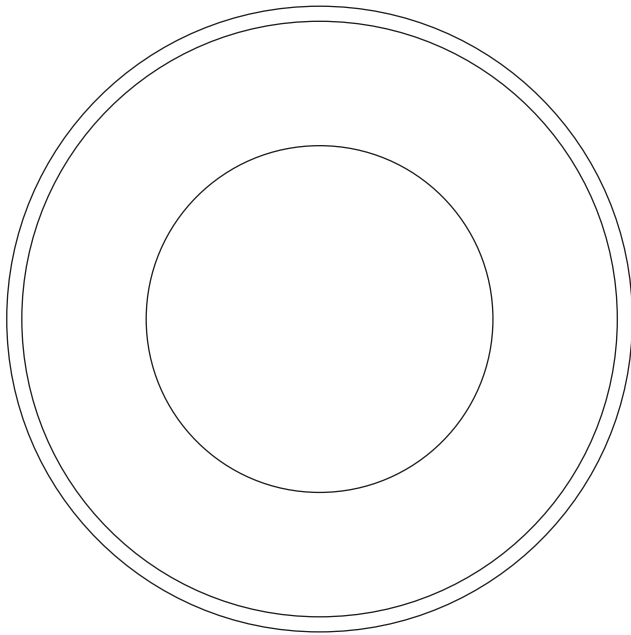


## QUESTION TWO: GEOTHERMAL POOLS

New Zealand is home to geothermal pools such as the world famous champagne pool in Rotorua, pictured on the right. The waters in these pools can reach boiling point.

Explain how geothermal pools form from heat within the Earth, how this heat is transferred through the layers of the Earth, and how this results in heating of groundwater.

An annotated diagram, using the template provided, will assist your answer.



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The examination continues on the following page.**











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