



The Deeper Secrets of Rotomahana

Activity for Intermediate – Lower Secondary Students

Curriculum: NoS, Investigating in Science, Levels 2 – 4

Introduction:

In January 2011 a GNS science team investigated Lake Rotomahana near Rotorua, and made some exciting discoveries that had been hidden under the lake for 125 years. In early March 2012 the scientists will be back, hoping to extend their knowledge with more detailed investigations.

Instructions for Students:

1. **Through your own research**, find out what these 2011 discoveries were, and list the steps that were taken by the scientists that led to these new discoveries.
You might find this link useful, (you will find further links to the blog and videos):
<http://www.gns.cri.nz/Home/Learning/Science-Topics/Volcanoes/Secrets-of-Rotomahana/Background-Info>
2. Next **make a model** of one of the key findings that lies on the floor of Lake Rotomahana. Think carefully also about what we still do not know as well as what we do.
3. Now **think creatively** about what you as a scientist investigator would do as a next step to increase our knowledge of the original discoveries. What practical methods can you think of to do this follow up research? Illustrate your ideas with diagrams, models and other information like a scientist would when planning a research project.

For Teachers:

You may wish to send a photo of some of the students' best work to Julian Thomson at GNS Science. Include the name and age of the student(s), year level and school, to:

j.thomson@gns.cri.nz

A selection of the most intriguing, well researched and creative entries will be posted on [Julian's Blog](http://juliansrockandiceblog.blogspot.co.nz/) (<http://juliansrockandiceblog.blogspot.co.nz/>). The scientists will be interested to see what ideas you can come up with!

