**ACTIVITY: Watching Rangitoto erupt**

**Activity idea**

In this activity, students read the book *Rangitoto* by Maria Gill and Heather Arnold (ISBN 978 014 350334 7). Using the information, they write their own story of Rangitoto, from the point of view of the Māori who were on Motutapu at the time of the eruption. (This book has been recommended for this activity by Rosemary Tisdall, children’s literature consultant.)

By the end of this activity, students should be able to:

* describe what a volcanic eruption would be like
* connect the last eruption of Rangitoto Island with Māori settlement in New Zealand
* understand some of the hazards associated with volcanic eruptions and what people should do in an emergency situation.

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**Introduction/background**

Rangitoto is a shield volcano found in the Auckland Harbour. It was the most recent of the Auckland volcanoes to erupt, forming only 600 years ago. By this time, Māori had already colonised the area and were living on Motutapu Island next to where Rangitoto would form. People on the island witnessed the eruption, and their footprints are preserved in ash that fell during the eruption.

Volcanoes in Auckland remain a hazard today. It is possible that a new eruption could occur during our lifetime, although it is quite unlikely.

What would it be like to watch a new mountain form, how would people react, and how would people feel?

**What you need**

At least one copy of the book *Rangitoto* by Maria Gill and Heather Arnold. Published by Puffin Books in 2009 (ISBN 978 014 350334 7).

**What to do**

1. As a class, watch the videos [DEVORA](https://www.sciencelearn.org.nz/videos/337-devora) and [Future explosions in Auckland](https://www.sciencelearn.org.nz/videos/344-future-explosions-in-auckland) featuring Dr Jan Lindsay.
2. After watching the videos, read the book *Rangitoto* by Maria Gill and Heather Arnold.
3. Ask the students to use the information in the book and the video to imagine they are one of the Māori settlers on Motutapu Island and what it would be like watching this eruption:
* What is happening?
* What can you see?
* How do you feel?
* How would you react?
1. Ask the students to write their own story about Rangitoto. They need to imagine that they are on neighbouring Motutapu when the eruption starts and tell a story that conveys their thoughts and emotions about what is happening and what they can see.

**Discussion questions**

* For the Rangitoto eruption, how far away were the ash and rocks falling? The book says that people ran to the far side of Motutapu – why did this mean that they were able to survive?
* The people probably didn’t know what was going on in the same way that we understand volcanoes today. How would this have affected their thoughts and reactions?
* Would an eruption in Auckland today be more or less scary? Why?
* What could you do to prepare for an eruption?
* Where might a new eruption occur? Is it likely to be where we already have volcanoes like Rangitoto or somewhere new? Why?

**Extension activity**

Rangitoto talks about the flora and fauna of the island establishing over the years. Use some of the other resource in the Hub ([New Zealand’s unique ecosystems](https://www.sciencelearn.org.nz/resources/1762-new-zealand-s-unique-ecosystems-introduction) and [Saving reptiles and amphibians](https://www.sciencelearn.org.nz/resources/1180-saving-reptiles-and-amphibians-introduction)) to look at the different plants and animals that are establishing themselves on Rangitoto