



# Extreme Natural Hazards

**A.S. 90202/ 1.1- Describe an extreme natural event and the human response (3 credits)**

This achievement standard is an external which is ultimately assessed in the NCEA examinations at the end of the year. You are required to **demonstrate knowledge of volcanic eruptions** including processes, sequence of events and effects on people, economy and the environment. You will also need to **describe how people respond to the eruption**.

You will need to refer to **specific case studies** to support your answers.

In this unit you will need to answer the following focusing questions:

Overview

- ☐ **Why do volcanoes erupt?** - processes
- ☐ **What happens before, during and after the eruption?** - sequence of events and the human response
- ☐ **How do volcanic eruptions affect people and the economy?** - effects
- ☐ **How do volcanic eruptions affect the environment?** - effects
- ☐ **How do people respond to these events?** - human response, increasing & decreasing effects



## PROCESSES - Describe & Explain why volcanoes erupt.

Part 1

1. **INTERNAL STRUCTURE OF EARTH** By the end of this part I should be able to:

| Success Criteria   | Done | Teacher check |
|--|------|---------------|
| 1. Use a diagram to describe the internal structure of the earth.  |      |               |
| 2. Label the 4 main layers and give a brief description of each one  |      |               |
| 3. Describe what convection currents are   |      |               |
| 4. Draw a diagram showing convection currents in the mantle  |      |               |
| 5. Explain how convection currents operate   |      |               |
| 6. Provide a world map showing the main plate boundaries & movements   |      |               |
| 7. Describe the 3 main types of plate boundaries (constructive, destructive & transform)   |      |               |
| 8. Draw a diagram to explain what happens during subduction  |      |               |
| 9. Provide a diagram that identifies and labels the main physical features of a volcano (vent, crater, magma chamber, lahar, lava flow etc.) |      |               |
| 10. Find information from case studies to support my answers   |      |               |

Final Task

**Write a paragraph describing (& explaining) the processes that are required for a volcano to erupt. Refer to specific case studies.**

