

# WHAT CAN WE STUDY ON RANGITOTO?

Your visit to Rangitoto linked to the curriculum

## GENERAL SKILLS

| SCIENCE   |   | SOCIAL STUDIES   |
|---|---|--|
| <p><b>SKILLS</b></p> <ul style="list-style-type: none"> <li>Investigation</li> <li>Experiencing phenomena</li> <li>Problem solving</li> </ul> | <p><b>ATTITUDES</b></p> <ul style="list-style-type: none"> <li>Curiosity</li> <li>Honesty in recording</li> <li>Flexibility</li> <li>Persistence</li> </ul> | <p><b>PROCESSES</b></p> <ul style="list-style-type: none"> <li>Collect, process and communicate information</li> <li>Values exploration</li> </ul> |

## PRIMARY AND INTERMEDIATE TOPICS

### SCIENCE

|   |   |
|---|---|
| <p><b>LIVING WORLD</b></p> <ul style="list-style-type: none"> <li>Bees and pollen</li> <li>Birds, especially Black-backed gull</li> <li>Bugs, insects and spiders</li> <li>Caring for places</li> <li>Down by the sea, including shellfish, crabs, seaweed</li> <li>Fishing</li> <li>Food webs in native forest</li> <li>Introduced plants and animals</li> <li>Leaves and seeds</li> <li>Medicinal plants</li> <li>Native forests</li> <li>Plants and change – plant succession</li> <li>Plant reproduction</li> <li>Plants, trees and ferns, especially native</li> </ul> | <p><b>PLANET EARTH</b></p> <ul style="list-style-type: none"> <li>A visit to the beach</li> <li>Building materials</li> <li>Conservation</li> <li>Change in a natural environment</li> <li>Clouds</li> <li>Geological history</li> <li>Landscape features – islands, volcanic cones</li> <li>Maori legends</li> <li>Plate tectonics</li> <li>Rocks</li> <li>Sea level change</li> <li>Soil</li> <li>Tidal patterns</li> <li>Volcanoes</li> <li>Water and recreation</li> <li>Water cycle</li> <li>Wind</li> </ul> |
| <p><b>PHYSICAL WORLD</b></p> <ul style="list-style-type: none"> <li>Floating and sinking</li> <li>Wind and water</li> </ul>   |   |

## PRIMARY AND INTERMEDIATE TOPICS *continued...*

### SOCIAL STUDIES

#### UNITS

- Conservation
- Crime and consequences – visiting the construction done by convicts
- Landmarks
- Maori culture
- Natural landscapes, volcanoes, islands
- NZ history
- Our place: Auckland
- Rocks
- Tourism
- Transport
- Water safety

#### IDENTITY, CULTURE AND ORGANISATION

- Community activities and features of historic bach communities
- Culture of bach communities
- Government decisions about buildings affect bach holders, visitors
- Interaction of historic bach communities with other communities
- Maori life on Motutapu
- Myths and legends associated with Rangitoto
- Roles people hold on Rangitoto
- Roles held in the self-sufficient bach communities
- Rules on Rangitoto, why these rules are needed, what happens when the rules are broken

#### PLACE AND ENVIRONMENT

- Activities on Rangitoto
- How people change/damage/enhance Rangitoto
- Influence of physical location and natural features on people's activities
- Meaning of the name Rangitoto
- Natural features of Rangitoto
- People living in isolated places
- Poetry, diary entries, art showing Rangitoto and recording people's visits
- Rangitoto as an important place, to Aucklanders, for conservation, to bach holders, and what factors influence this
- Views different groups hold about Rangitoto
- Why some features resulting from past interactions between people and the environment endure while others disappear

#### CONTINUITY AND CHANGE

- Historic baches show differences between 1930s and today
- How people's actions influenced the lives of others, especially with regard to historic baches

#### THE ECONOMIC WORLD

- Perspectives on the resources at different times, by different groups
- Resources available on Rangitoto and how they are managed/conserved
- What work is done by people on Rangitoto

### SECONDARY STUDIES

#### BIOLOGY

- Adaptations
- Ecosystems

#### GEOGRAPHY

- Extreme natural events
- Interaction between people and environments
- Volcanic landscapes

## SECONDARY STUDIES *continued...*

### SCIENCE

#### LIVING WORLD

- Adaptive features to survival, especially on rocky shore
- Ants and division of labour in a colony
- Bugs and beetles
- Ecosystems and energy pyramids, carbon transfer
- Factors that affect a living process
- Fishing
- Food chains
- Impact of people on natural environment
- Introduced plants and animals
- Medicinal plants
- Native forests
- Plant classification
- Plant reproduction
- Plant survival
- Producers, consumers, decomposers
- Seed dispersal, fern spores
- Special characteristics of native plants and animals
- Variation within species and adaptation

#### PHYSICAL WORLD

- Earth's moving crust
- Weather and climate

#### PLANET EARTH

- Building materials, roading materials
- Conservation
- Cross section of a geological feature
- Formation of natural features
- Geological history
- Maori legends
- Mapping skills, including topographical maps, geological maps
- Natural resource extraction
- Plate tectonics
- Rocks, rock cycle
- Satellite imaging
- Sea level change
- Soils
- Volcanoes

### SOCIAL STUDIES

#### UNITS

- Conservation
- Landmarks
- Maori culture
- Marketing of New Zealand
- Natural landscapes, volcanoes, islands
- NZ history
- Our place: Auckland
- Rocks
- Tourism

#### IDENTITY, CULTURE AND ORGANISATION

- Adaptation and change in the bach communities
- Government decisions about buildings affect bach holders, visitors
- How changes have strengthened the identity of bach holders
- Perspectives on regulations regarding Rangitoto, especially building regulations, conservation
- Reforms and changes to rules affect people's rights, roles and responsibilities
- Social organisation in the self-sufficient bach communities

#### PLACE AND ENVIRONMENT

- Changes to maps of Rangitoto over time
- Differences in views of the use of Rangitoto and how these have been resolved
- Effects of population change on Rangitoto
- Implications of changes to people and the island environment
- Influence of technology on Rangitoto
- Poetry, diary entries, art showing Rangitoto and recording people's visits
- Rangitoto as an important place, to Aucklanders, for conservation, to bach holders, and what factors influence this
- Regulations on the use of Rangitoto

#### CONTINUITY AND CHANGE

- History of Rangitoto through different sources – legends, poetry, diary entries, art
- How people's actions influenced the lives of others, especially with regard to historic baches

#### THE ECONOMIC WORLD

- Resources on Rangitoto are valued differently by different groups

## ACHIEVEMENT STANDARDS – INTERNAL

### INTERNALLY ASSESSED

#### BIOLOGY

##### > LEVEL 1

**90161 Biology 1.1**

Carry out a practical biological investigation with direction, e.g. a pattern seeking investigation.

**90164 Biology 1.4**

Describe ecological characteristics found in two biological communities, eg. a forest environment, rocky shore, insect communities.

**90165 Biology 1.5**

Describe the control of all introduced species that affect native species, e.g. possums, wallabies, introduced plants.

##### > LEVEL 2

**90457 Biology 2.1**

Carry out a practical biological investigation with supervision.

**90769 Biology 2.2**

Research the interaction between humans and an aspect of biology, e.g. ecosystem change due to humans such as Wilson's Park, possum control.

**90460 Biology 2.4**

Investigate an interrelationship or pattern in an ecological population or community, e.g. collecting field data about a plant or animal species on a shore or in a forest.

##### > LEVEL 3

**90713 Biology 3.1**

Carry out a practical investigation into an aspect of an organism's ecological niche with guidance, e.g. investigating an interaction or relationship.

#### GEOGRAPHY

##### > LEVEL 1

**90206 Geography 1.5**

Carry out and present directed geographic research, e.g. changes in management and use of Rangitoto by people, elimination of pests, ecosystems.

**90207 Geography 1.6**

Describe a contemporary geographic issue and evaluate courses of action, e.g. changes in management and use of Rangitoto by people, elimination of pests, changes to ecosystems.

##### > LEVEL 2

**90335 Geography 2.5**

Carry out and present guided geographic research, e.g. changes in management and use of Rangitoto by people, elimination of pests, ecosystems.

**90336 Geography 2.6**

Explain a contemporary geographic issue and evaluate courses of action, e.g. changes in management and use of Rangitoto by people, elimination of pests, changes to ecosystems.

##### > LEVEL 3

**90705 Geography 3.5**

Carry out and present geographic research with consultation, e.g. focus on changes in management and use of Rangitoto by people, elimination of pests, ecosystems.

**90706 Geography 3.6**

Analyse a contemporary geographic issue and evaluate courses of action, eg. focus on changes in management and use of Rangitoto by people, elimination of pests, changes to ecosystems.

#### SCIENCE

##### > LEVEL 1

**90186 SCIENCE 1.1**

Carry out a practical scientific investigation with direction, e.g. pattern finding.

##### > LEVEL 2

**90312 SCIENCE 2.1**

Carry out a practical scientific investigation with supervision, e.g. pattern finding in distribution of molluscs, distribution of plants

**90771 SCIENCE 2.2**

Research information to present a scientific report, e.g. pest control, plate tectonics.

##### > LEVEL 3

**90727 Science 3.1**

Carry out a practical scientific investigation with guidance, e.g. pattern finding in stratification/zonation in a biological community, distribution of molluscs, sea level or tidal change, soil composition, plant succession, microclimates and plant distribution.

#### SOCIAL STUDIES

##### > LEVEL 1

**90217 SOCIAL STUDIES 1.3**

Conduct a social studies inquiry to communicate conceptual understandings about society, e.g. historical bach communities and changes in management and use of Rangitoto by people.

**90218 Social Studies 1.4**

Explain differing values positions, e.g. changes in management and use of Rangitoto by people and perspectives such as Maori, lease holders, conservationists, government.

##### > LEVEL 2

**90273 Social Studies 2.3**

Conduct an advanced social studies inquiry, e.g. conflicts over use, especially between lease holders and government/conservationists.

**90274 Social Studies 2.4**

Describe responses to values position(s), e.g. changes in management and use of Rangitoto by people and perspectives such as Maori, lease holders, conservationists, government.

##### > LEVEL 3

**90691 Social Studies 3.3**

Conduct an advanced social studies inquiry independently, e.g. conservation, changes in management and use of Rangitoto by people.

**90692 Social Studies 3.4**

Explain a values system, e.g. conservation, historical bach communities.

### EXTERNALLY ASSESSED

#### GEOGRAPHY

Rangitoto could provide case study materials or background hands-on experience.

##### LEVEL 1

**AS 90202 Geography 1.1**

Describe an extreme natural event and the human response, focus on volcanism.

##### LEVEL 2

**AS 90331 Geography 2.1**

Explain a natural landscape, focus on Rangitoto or a volcanic landscape.

##### LEVEL 3

**AS 90701 Geography 3.1**

Analyse natural processes in the context of a geographic environment, focus on Rangitoto or a volcanic landscape.