



## Waiora Stream Study

### Introduction

*Waiora* is a Maori word that means the purest form of water, the source of life and wellbeing. It describes water not only as we can see and feel it, but also its quality and health. Water has many different dimensions and uses. It is a resource, a place to play, and is essential for spiritual renewal. Care and celebration of our water resources is one of the most important tasks we have as guardians of this land.

### Education Programme Overview

**Introduction:** The Waiora programme aims to encourage positive involvement in environmental issues by providing opportunities for schools to investigate and plan action for the environment. Using an action oriented approach, based on learning in the environment, for the environment and about the environment.

### Our Objectives for your class:

- Learn about the way rivers and people depend on each other through activities linked to the national curriculum.
- Enjoy a positive, fun experience on the banks of a local stream.

- See and touch a stream, discover its physical make up and the life it supports
- Take part in monitoring and streamside restoration projects.

**Experience:** Taking part in Waiora offers your class the opportunity for a guided stream visit. The programme investigates water quality issues, aquatic habitats and the impacts of land management.

We will tailor your visit to suit your class' needs and supply all the necessary equipment. The visit can include work in the following three areas:

1. Habitat Assessment
2. Measuring the physical attributes of the stream:
  - Water Flow
  - Stream cross-section
  - Clarity
  - Temperature
3. Biological indicators of stream health (invertebrate diversity and identification).

The Waiora programme takes approximately 2 hours at the stream. Ideally a class size of about 30 is ideal, being split into four smaller groups. Plenty of parent and teacher help is also required.

**Reflection:** Students reflect on the results from stream testing and identify things that they could do to improve or enhance the stream or river they tested.

### Concepts

Catchments, water cycle, water quality.

### Key Competencies

**Thinking:** Students will develop their understanding of the properties of water through experiments and make sense of and question their experiences and ideas.

**[investigate / infer / explain]**

### Using language, symbols and texts:

Students will learn and become familiar with the specialist language associated with water.

**[inquire / describe / report]**

**Managing self:** Students will organise and focus on activities to provide answers to their questions.

**[question / organise / focus on tasks]**

**Relating to others:** Students will be encouraged to listen actively, share ideas with each other and justify their ideas during the course of the activities.

**[contribute / discuss / justify]**

**Participating and contributing:** Students will connect learnings from the activities to how these impact on them and the choices they can make.

**[connect / respond / make choices]**

### Curriculum Links

#### Science Level 3 and Level 4

*Planet Earth and Beyond:* Earth Systems, Interacting Systems

*Nature of Science:* Investigating in Science, Participating and Contributing

*Living World:* Life Processes, Ecology

#### Social Sciences Level 3 and Level 4

- Understand how people view and use places differently

- Understand how people make decisions about access to and use of resources

#### Mathematics Level 3 and Level 4

*Statistics:* Statistical Investigation

*Geometry and Measurement:* Measurement

*Number and Algebra:* Number Strategies and Knowledge

#### Health Level 3 and Level 4

*Personal Health and Development:* Safety Management

*Healthy Communities and Environments:* People and the Environment

#### English Level 3 and Level 4

*Listening, Reading and Viewing:* Process and Strategies, Ideas

### Resources

Waiora handbook and kit is supplied by Horizons Regional Council, along with monitoring sheets for students to fill out and activity sheets for teacher and parent help to follow.