

# Save Our Sand Dunes

by Philippa Werry

School Journal  
Part 2 Number 3 2010

Noun frequency level: 8–9  
Year 4



## Overview

When the author's family find they can't use their usual track to the beach, they are annoyed at first. Then they realise they have to think about the dunes they have walked across and taken for granted for years. "Save Our Sand Dunes" is an article that combines a personal recount with explanations about the importance of sand dunes, how they are damaged or lost, and what can be done to save them. Information includes facts about the New Zealand coastline and the plants (native and introduced) that help hold dunes together. A section at the end of the article

gives suggestions for protecting sand dunes. The article has a strong theme of conservation and provides opportunities for exploring the way texts can be written to inform and persuade.

This text connects with the short article that follows on pages 18–21 of the same Journal about a midden that was found in sand dunes.

Texts related  
by theme

"Changing Landscapes" SJ 2.1.07 | "Pest Fish" SJ 2.4.05 | "Seeds for the Birds" SJ 2.4.07

## Text characteristics from the year 4 reading standard

a straightforward text structure, such as a structure that follows a recognisable and clear text form

other visual language features that support the ideas and information, for example, text boxes or maps

some words and phrases that are ambiguous or unfamiliar to the students, the meaning of which is supported by the context or clarified by photographs, illustrations, diagrams, and/or written explanations

New Zealand has a long coastline – about 10 000 kilometres of it. Much of it is rocky shore, but about 1100 kilometres consist of sandy beaches with dunes. Some of these dunes are more than 150 metres high.

Many of New Zealand's dunes haven't been looked after properly, and some have been lost as a result. The dune plants have been grazed by farm animals or nibbled by rabbits. The dunes themselves have been trampled over by people and dogs, driven on by trail bikes and dune buggies, and built on for housing.

Sand dune areas that are a priority for conservation

### Sand Plants

Conditions on the dunes are tough, and not all plants can cope with them. To grow there, plants have to be able to survive wind, hot sun, and salt spray.

Plants that grow in the dunes need long roots that can reach down deep in the sand to find moisture. Their leaves are often long and thin to help them trap grains of sand more easily.

Lyall Bay, 1909

Lyall Bay, 2010

Sand dunes on Whatipu Beach, west Auckland

some abstract ideas that are clearly supported by concrete examples in the text or easily linked to the students' prior knowledge

some compound and complex sentences, which may consist of two or three clauses

# Possible curriculum contexts

## SCIENCE (Living World)

LEVEL 2 – Ecology: Recognise that living things are suited to their particular habitat.

## ENGLISH (Reading)

LEVEL 2 – Structure: Show some understanding of text structures.

## ENGLISH (Writing)

LEVEL 2 – Purposes and audiences: Show some understanding of how to shape texts for different purposes and audiences.

## Possible reading purposes

- To find out why sand dunes need saving
- To explore how particular plants are suited to a sand dune environment
- To identify the risks and supports for species in sand dunes
- To identify what we can do to help the sand dunes survive
- To evaluate the positive and negative aspects of a human activity on sand dunes.

See [Instructional focus – Reading](#) for illustrations of some of these reading purposes.

## Possible writing purposes

- Write to persuade others to protect an environment within your community
- To describe how a chosen species is suited to its environment
- To compare the ways in which two or more plants have adapted to their habitat.

See [Instructional focus – Writing](#) for illustrations of some of these writing purposes.

# Text and language challenges

## VOCABULARY:

- Possible unfamiliar words and/or specialist words, including “dunes”, “access”, “vanish”, “extra-high”, “gradually”, “eroded”, “coastline”, “shore”, “consist”, “grazed”, “nibbled”, “trampled”, “trail bikes”, “dune buggies”, “conditions”, “cope”, “moisture”, “grains”, “introduced”, “century”, “Depression”, “gangs”, “unemployed”, “seedheads”, “re-establish”, “destroys”, “precious”, “recycle”, “compost”, “leash”
- The plant names (“pingao”, “kōwhangatara”, “spinifex”, “marram grass”)
- The word families “protect”, “protection”, “protecting”; “eroded”, “erosion”.

## Possible supporting strategies

Provide opportunities for students to encounter and practise key low-frequency words such as “dunes”, “eroded”, “coastline”, “re-establish”, and the plant names before and after reading.

Some students may need support to understand the specific meanings of some words, such as “track”, “trap”, or “tough”. Allow time and opportunities for them to encounter any unfamiliar usage or expressions through oral and written language. Use a group discussion as suggested below to elicit vocabulary related to the topic. During the discussion, tell the students that some of this vocabulary will be in the text they are going to read and start a vocabulary list of key words. Help the students to make notes about the words and phrases, for example, definitions, translations (if appropriate), example sentences, word families, or words that go together (collocations).

*The English Language Learning Progressions: Introduction*, pages 39–46, has some useful information about learning vocabulary.

## SPECIFIC KNOWLEDGE REQUIRED:

- Playing or walking on sand dunes
- Knowledge of beaches or oceans
- The concept of changes to the landscape and the habitats within it over time
- The changing values people have placed on sand dunes or other conservation areas
- The concept that some habitats may or may not support certain species
- Knowledge of conservation.

## Possible supporting strategies

Depending on your location, you may be able to visit sand dunes as a way of raising awareness and building background knowledge before reading. If not, pictures such as those on pages 14 and 15 could be used to support knowledge of how natural coast environments are changed.

A day or so before reading, have a group discussion to share experiences and knowledge about sand dunes. Prompt students to talk about the plants they’ve seen on sand dunes and what the habitat would be like. Some students may share knowledge about coastal areas from countries they have come from. Some students may not have any experience of (or much knowledge about) beaches and oceans and their features, so you could begin with pictures of beaches and oceans and discuss their features and then move on to sand dunes.

## TEXT FEATURES AND STRUCTURE:

- The mixed text types include a recount that introduces the article and the instructions – with the added purpose of persuasion
- The use of headings for the sections of the article
- Many complex sentences with a wide variety of relationships between ideas, including time, sequence, consequence, and cause and effect
- Connections between sentences, including through the use of pronouns – “That leaves the land ...” and “This is what ...” [page 13], “Much of it ...” [page 14]
- Language describing location – “at the beach”, “across the road”, “in the sand dunes”
- Multiple time frames and a wide range of verb forms.

## Possible supporting strategies

Support the students to identify the structure of the text, using the headings as a guide to the content of each section. Prompt them to examine the photographs as well as the text.

During and after reading, check the students’ understanding of the explanation of how and why dunes have been destroyed. You may need to break down the complex sentences in order for students to understand the wide variety of relationships between ideas, including time, sequence, consequence, and cause and effect.

# Instructional focus – Reading

Science (Living World, level 2, ecology – Recognise that living things are suited to their particular habitat.)

## Text excerpts from “Save Our Sand Dunes”

## Students (what they might do)

## Teacher (possible deliberate acts of teaching)

This year, something was different. “Our” track was blocked off with a fence, and there were signs saying Keep off the Dunes.

*The students use information from the title and the text to **predict** that the article will explain why and how dunes should be and can be saved.*

**PROMPT** students to identify the information that will support their predictions.

- The title of this article is “Save Our Sand Dunes”. What information do you think this article will contain?
- Why might sand dunes need protecting? How can it be done?

This is what has often happened in the past. Sometimes houses have fallen into the sea when sand dunes have been eroded.

*Students, with support, integrate the information about sand, wind, plants, and erosion to understand the importance of the dunes.*

**ASK QUESTIONS** to help students clarify their understanding.

- What moves the sand? What keeps sand in place?
- What can happen if the dunes disappear?

Many of New Zealand’s dunes haven’t been looked after properly, and some have been lost as a result. The dune plants have been grazed by farm animals or nibbled by rabbits. The dunes themselves have been trampled over by people and dogs, driven on by trail bikes and dune buggies, and built on for housing.

*Students draw on related pieces of information in the text to understand that a combination of human activity and tough conditions contribute to the loss of dune plants. They use this information to **evaluate** human actions and express opinions about what needs to change.*

**ASK QUESTIONS** to support students to bring information together.

- How would you describe the habitat of dune plants?
- What are the risks to their survival?

**MODEL** how a reader brings together information from within the text to be able to infer.

- I wonder what “tough” means here. When I read on, I see that not all plants can cope with the conditions. This tells me that conditions are bad enough to kill some plants. So “tough” must refer to the ways the wind, sun, and salt spray make survival very difficult for plants.

**PROMPT** the students to identify that the first sentence is the topic sentence of the paragraph.

- What do you think the rest of the paragraph will say?

**EXPLAIN** the term Depression, which may be unfamiliar to students.

- The Depression was a period when many countries faced very hard times. The government created work programmes to give groups or “gangs” of men a way to earn money.

Conditions on the dunes are tough, and not all plants can cope with them.

*Students work out how to say the plant names, using what they know about Māori and English pronunciation.*

**ASK QUESTIONS** to help students make connections between parts of the text.

- Why do you think the government chose to plant marram grass?
- Why do you think marram grass was able to do so well on the dunes?
- What did this mean for the survival of the native plants? Why?

Three of the most common dune plants are pingao, kōwhangatara (spinifex), and marram grass.

*Students use information in the text to **infer** that marram grass is even better suited to the sand dune habitat than the native plants. With prompting, they **evaluate** the long-term survival of native plants.*

**GIVE FEEDBACK**

- I noticed how you used information from different parts of the text to help understand why sand dunes need protecting and how we can protect them. Well done! Now read the next story to see how this knowledge can help you to learn about one particular dune project.

During the Depression in the 1930s, gangs of unemployed men planted marram grass to help protect the dunes. It grew so well that it often forced out the native plants

## METACOGNITION

**ASK QUESTIONS** to develop students’ awareness of the strategies they used as they read and responded to the text.

- What did the author mean by the words “People often take sand dunes for granted”? How did you know that? What helped you?
- What helped you to work out the word “re-establish”? How did your knowledge of prefixes help you?
- How did you make the inference that marram grass is better suited to the dunes than native plants? What parts of the text helped you?

Reading standard: by the end of year 4

The Literacy Learning Progressions

Assessment Resource Banks



# Instructional focus – Writing

Science (Living World, level 2, ecology – Recognise that living things are suited to their particular habitat.)

## Text excerpts from “Save Our Sand Dunes”

Every year, our whole family spends our summer holidays at the beach. Day after hot, sunny day, we walk across the road, through the dunes, over the sand, and down to the sea.

New Zealand has a long coastline – about 10 000 kilometres of it. Much of it is rocky shore, but about 1100 kilometres consist of sandy beaches with dunes. Some of these dunes are more than 150 metres high.

Coast Care groups in many areas are now trying to re-establish pīngao and kōwhangātara in sand dunes.

- Look for the Beach Access signs and keep to those paths.

## Examples of text characteristics

### AUDIENCE

*Use of first person and a familiar event is an excellent way to engage reader interest or “buy in”. The author addresses the reader directly in a conversational tone to lead into the article.*

### FACTS AND FIGURES

*Using facts can make a persuasive argument more compelling. This makes it more likely that the audience will agree with you.*

### IMPLICATION

*In order for a reader to infer, a writer needs to imply ideas in their writing. Students need to learn to imply in their writing if this fits in with their purpose.*

### DIRECTING

*When the purpose is to persuade the audience to do something, it is sometimes appropriate to give explicit directions. A list of actions gives the reader a quick and easy-to-manage set of choices. Directions use imperative verbs (“look”, “keep”, “recycle”).*

## Teacher

(possible deliberate acts of teaching)

### ASK QUESTIONS

to help students form intentions for writing.

- What is your purpose for writing?
- What writing features are best suited to this science topic?
- What is the best way of getting your information and ideas across to the reader?
- If you are writing to clarify your own thinking, what sort of structure will help you?

### PROMPT

students to identify the persuasive aspects of the text.

### ASK QUESTIONS

to help students focus their research.

- What facts and figures can you find to support your argument?
- How can you make them clear and interesting?
- What is the best way of getting them across?

### EXPLAIN

how facts can be used to imply meaning.

- The use of facts and figures, supported by the map and the photographs, implies that there are many kilometres of dunes and that many dune areas have already been lost.
- Why is it sometimes better to imply than tell the reader directly?
- What do you want your readers to infer from the information you use?
- Reread to make sure you’re implying or showing the audience something, not telling them directly.

### MODEL

- Let’s reread page 17 in “Save Our Sand Dunes”. This list of actions shows me, as the audience, that there are some things I can do to protect the dunes. That’s great – I’ll certainly try to do these things now I know the reasons.

### GIVE FEEDBACK

to affirm students’ writing decisions and guide their learning.

- You’ve planned and researched carefully. From the facts you’ve chosen, which ones are most likely to influence your audience?
- I like the way you’ve used photos and the Māori and English names for the plants. Your readers will be able to identify these in the bush.
- The labelled diagram shows me exactly how human actions cause problems. That’s a great help to your audience.

## METACOGNITION

**ASK QUESTIONS** to help the students think more deeply about the strategies they use to convey ideas in their writing.

- What guided your thinking as you decided on the audience? What would you do differently for a much younger or older audience? Why?
- How did you shape your writing to engage your readers’ interest? Do you think you’ll succeed in getting them to protect the environment? Why or why not?
- How will you know that your writing has made readers think about their actions?



Writing standard: by the end of year 4

The Literacy Learning Progressions