

# Where No Boat Could Live

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Noun frequency level: 10–12  
Years 5–6



## Overview

When Moriori arrived in Rēkohu hundreds of years ago, they needed to source food from the sea. The boats they built looked primitive to visiting European eyes, but the clever design meant the boats stayed afloat in the very harsh conditions around Rēkohu. This article describes the design and uses text and diagrams to show how it met local needs and conditions. The article gives opportunities for students to appreciate the key test of any technology: successful function.

Consider the difficulty level of this article, taking into account the expected increases in reading independence as students move from year 5 to 6. See the notes that accompany the reading standards (from page 28) for these years.

Journals related by theme

*School Journal* Part 2 Number 2, 2010 | *School Journal* Part 4 Number 3, 2010  
(See also “Basket Boats” SJ 2.1.09)

## Text characteristics from the year 5 and 6 reading standards

a significant amount of vocabulary that is unfamiliar to the students (including academic and content-specific words and phrases), which is generally explained in the text by words or illustrations

some ideas and information that are conveyed indirectly and require students to infer by drawing on several related pieces of information in the text

abstract ideas, in greater numbers than in texts at earlier levels, accompanied by concrete examples in the text that help support the students' understanding

Buoyant and seaworthy, the Moriori wasm-through waka could carry heavy loads and a large number of people. They varied in size from the small waka kōrari (one- or two-person canoes about 3 metres long) to the waka pahi. These larger sea-going craft were up to 15 metres long and could hold a crew of twelve or more. Both the waka kōrari and the waka pahi were perfectly suited to the local conditions, even though visiting European sailors thought the smaller waka looked like wheelbarrows!

In shape they were not unlike the body of a common Wheelbarrow ... The paddles were a rough piece of wood crudely made into a flat form without the least neatness. The whole of the construction made it pretty evident that they would never be employ'd upon any distant embarkation, but were most probably used merely in the bay amongst the rocks for fishing ...  
James Johnstone, clerk on board the HMS Chatham, 1791

What made the waka kōrari and the waka pahi so special was their simple yet clever design. Each waka had a rectangular shape and a steeply rising bow (similar to modern military landing craft). Two parallel runners on the bottom of the hull formed the backbone of the waka and helped to support the framework. The floor and sides were made of reeds. Some waka had a base of inflated kelp, while others contained bundles of dried flower stems from the flax plant (known as kōiri). Both kelp and kōiri helped the waka to float, no matter how choppy the sea.

figurative and/or ambiguous language that the context helps students to understand

The two runners were made from wood. They were held in place at the stern by a wooden plank.

Bundles of reeds, which made the floor and sides of the waka, were tied to a framework made from young matipou trees.

Kelp helped the waka to float. It was stuffed into a space at the bottom of the waka.

Waka kōrari

sentences that vary in length and in structure (for example, sentences that begin in different ways and different kinds of complex sentences with a number of subordinate clauses)

some information that is irrelevant to the identified purpose for reading (that is, some competing information), which students need to identify and reject as they integrate pieces of information in order to answer questions

illustrations, photographs, text boxes, diagrams, maps, charts, and graphs that clarify or extend the text and may require some interpretation

Reading standards: by the end of years 5 and 6

# Possible curriculum contexts

## TECHNOLOGY (Nature of Technology)

LEVEL 3 – Characteristics of technology: Understand how society and environments impact on and are influenced by technology in historical and contemporary contexts and that technological knowledge is validated by successful function.

## ENGLISH (Reading)

LEVEL 3 – Purposes and audiences: Show a developing understanding of how texts are shaped for different purposes and audiences.

## ENGLISH (Writing)

LEVEL 3 – Structure: Organise texts, using a range of appropriate structures.

## Possible reading purposes

- To find out about Moriori wash-through waka
- To find out how Moriori solved the problem of fishing in rough seas
- To explore and describe the features of the Moriori wash-through waka
- To compare ideas about design and construction of ocean-going vessels.

## Possible writing purposes

- To describe or explain how a problem was solved through technology
- To describe a technology in detail
- To compare different designs of sea-going vessels.

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

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

# Text and language challenges

## VOCABULARY:

- The names of people, places, and materials specific to Rēkohu
- Possible unfamiliar words and concepts, including “double-hulled”, “vastly”, “options”, “kernels”, “capsized”, “buoyant”, “seaworthy”, “evident”, “embarkation”, “merely”, “inflated”, “kelp”, “unstable”, “hull”, “wash”, “natural ballast”, “appreciate”, “clumsy”, “primitive”, “backward”, “innovators”, “adapt”
- The use of connectives (words that connect ideas), including “In fact”, “even though”, “Because”, “Luckily”, “yet”, “Some ... while others”, “However”, “actually”, “But”, “of course”
- Figurative language, including “the craft’s backbone”, “arms of kelp”.

## Possible supporting strategies

List and preteach Moriori and Māori names and words that may be unfamiliar to the students.

Create a mind map of specialist words related to the seaworthiness of boats, introducing words from the article. Display the mind map and add to it during and after reading.

Have the students scan the text, working in pairs or small groups. Give each pair or small group a category, such as people, animals and plants, people’s actions, the land, sea, climate, or boats. Tell them to find words that belong in their category. They could then share their words (on a poster perhaps), discuss what they think they mean (using the illustrations), and make predictions about the text.

Identify connectives that join ideas. You could start to make a class list, grouping them under different headings according to the type of relationship. Note that it is often not the word or phrase but also the sentence structure that expresses the relationship. Use discussions to identify connectives that join ideas. Discuss how we use these words to signal how ideas are related, for example, in time, by causality, or to express contrast.

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

## SPECIFIC KNOWLEDGE REQUIRED:

- Understanding why people go fishing and the risks involved
- Knowledge (from reading, TV, own experience) of small boats and the ways that they are built to cope with the environments in which they are used
- Experience of being on the sea
- Understanding of changing opinions and values over time, especially concepts of “primitive” and “simple”.

## Possible supporting strategies

Support students who have limited knowledge by providing resources and opportunities to discuss the technology involved.

Use peer support to enable students to share their knowledge. Give students who share knowledge of other cultures and languages opportunities to discuss ideas in their other languages, share their knowledge and ideas, and make connections to their experiences.

Use group discussions to review the previous article and to prepare students to think about how opinions and values change and the impacts this can have.

## TEXT FEATURES AND STRUCTURE:

- Use of sentences that include dashes, parentheses, or ellipses
- Some long, complicated sentences with many clauses and/or phrases, for example, “What they needed was a new type of boat that could safely carry people, and their hard-won cargo of food, without the fear of sinking.”
- Adverbial clauses: “And even though this new place was vastly ...”, “Because the cooler climate prevented the Moriori from ...”
- Inversion of adjectives: “Buoyant and seaworthy, the Moriori wash-through waka ...”.

## Possible supporting strategies

Review other articles students have read that use labelled diagrams and discuss their features.

At year 5, students may need support with some complicated sentence structures. Review how using the punctuation and searching for verbs can help unpack a complicated sentence. If students find complicated sentences difficult, break them down into clauses and phrases and identify when, what, where, and who in each (particularly noting the verb). Then put the clauses and phrases back together and identify the relationships between them.

# Instructional focus – Reading

**Technology** (Nature of Technology, level 3, characteristics of technology – Understand how society and environments impact on and are influenced by technology in historical and contemporary contexts and that technological knowledge is validated by successful function.)

## Text excerpts from “Where No Boat Could Live”

## Students (what they might do)

## Teacher (possible deliberate acts of teaching)

Buoyant and seaworthy, the Moriori wash-through waka could carry heavy loads and a large number of people.

*Students use their knowledge of sentence structure to work out that these adjectives describe the waka.*

**PROMPT** students to notice the two adjectives at the beginning of this sentence.

- I wonder what the words “buoyant” and “seaworthy” refer to? How do we know?

This is an unusual sentence structure, so some students might not be able to use prior knowledge. You could help them by identifying the subject and the meaning of the rest of the sentence, then coming back to the adjectives. You could also talk about the implied causal link (that is, because they are buoyant and seaworthy ...).

**MODEL** your thinking if students need support to make an inference.

- The words “even though” are a signal that the second part of the sentence is going to say something that contradicts the first part.

### ASK QUESTIONS

- Why do you think military landing craft have a bow like this? Which word tells you that?
- How would the shape of the bow of the waka help in rough seas?
- What are runners? Where else might you find runners? Using the explanation in the text, the illustration, and what you know about runners, what double purpose do you think they had for the waka?

To provide sufficient support for understanding the design, you may need to enlarge the text on pages 14–15 and use a shared reading approach. Work through the design piece by piece.

**PROMPT** students to integrate information within the text.

- Look at the text and see if you can locate information about why the Moriori designed the waka the way they did.
- What were the reasons for the design? What can you infer about the design?

**EXPLAIN** the use of connectives.

- The phrase “One of the tricks of their design” is a way of connecting ideas. This sentence gives more information about the design of the boat, connecting it to the previous sentence with words that let us know we’re going to get more design facts.

Some students will need more support with the complex sentences, relationships between ideas, and technical vocabulary. Work through each sentence, perhaps each phrase or clause, making connections to the illustrations. You could draw a diagram and make notes around it as you read and discuss pages 14–16.

### GIVE FEEDBACK

- You’ve made useful connections between these two articles to build on your knowledge about how the Moriori lived and thrived. Checking backwards and forwards between articles is a good way of clarifying information.
- I noticed the way you’ve formed your own opinions of Moriori technology based on what you’ve read and what you already know about modern technology.

Both the waka kōrari and the waka pahī were perfectly suited to the local conditions, even though visiting European sailors thought the smaller waka looked like wheelbarrows!

*Students make connections within the text to understand the meaning of “perfectly suited”. They use the clause “even though ...” to infer that the Europeans had a low opinion of the waka.*

Each waka had a rectangular shape and a steeply rising bow (similar to modern military landing craft). Two parallel runners on the bottom of the hull formed the backbone of the waka and helped to support the framework.

*Students make connections with what they know about shapes, boats, and construction methods and materials (and the illustrations in the text) to understand the waka design.*

The men, who did almost all of the hunting and fishing, soon discovered that their dugout canoes capsized in the big seas around Rēkohu.

*Students locate, evaluate, and integrate the information about the sea conditions around Rēkohu, the capsizing of original Moriori waka, and the change in waka design to build their understanding of the waka.*

What made the waka kōrari and the waka pahī so special was their simple yet clever design.

*They use the punctuation and knowledge of quotes to infer that the author used a witness account to add authenticity. The students use the quote to help visualise the waka in action.*

One of the tricks of their design was allowing waves to simply wash straight through (“the water going through the canoe as much as the canoe through the water,” wrote Edward Chudleigh, a Pākehā settler on Rēkohu).

### METACOGNITION

**PROMPT** students to articulate their use of strategies.

- Think about how you unpacked that sentence to understand it. How did you do it? How will that help next time you come across a complicated sentence?
- How did the images, along with the text, help you to understand the technical explanations in this article?

### DIRECT

- Now that we’ve read this text a couple of times, read it to yourself once or twice and see if you can improve on your fluency.

Reading standards: by the end of years 5 and 6

The Literacy Learning Progressions

Assessment Resource Banks

# Instructional focus – Writing

English (Level 3 – Structure: Organise texts, using a range of appropriate structures.)

## Text excerpts from “Where No Boat Could Live”

The men ... soon discovered that their dugout canoes capsized in the big seas around Rēkohu. What they needed was a new type of boat that could safely carry people, and their hard-won cargo of food, without the fear of sinking. The answer was wash-through waka.

Some waka had a base of inflated kelp, while others contained bundles of dried flower stems from the flax plant (known as kōrari). Both kelp and kōrari helped the waka to float, no matter how choppy the sea.

Kelp helped the waka to float. It was stuffed into a space at the bottom of the waka.

And even though this new place was vastly different from their homeland, they decided to stay.

Buoyant and seaworthy, the Moriori wash-through waka could carry heavy loads and a large number of people.

## Examples of text characteristics

### PROBLEM–SOLUTION CONSTRUCTION

*A text that explains or describes something often uses a problem–solution construction as a framework. The explanation describes what was done to solve a problem.*

### ADDING DETAILS

*Carefully selected, relevant details help the reader to understand and visualise. Details can give information to support the solution to a problem.*

### LABELLED DIAGRAM

*A labelled diagram relates to the text. It can be used to add detail, to show a feature in close-up, and to help the reader understand a specific aspect of a description.*

### SENTENCE STRUCTURE

*Changing the expected order of words, phrases, or clauses within a sentence can highlight an important idea or give the sentence more impact. The sentence must still make sense.*

## METACOGNITION

**ASK QUESTIONS** to encourage the students to think more deeply about their writing.

- What problem does the technology you've described solve? Ask a partner to read your writing to check that readers will understand it. Partners, what kind of feedback will be most useful to the writer?
- How did you select vocabulary, illustrations, and details to best match your audience?
- Where have you experimented with making your sentences more interesting? How have you done this?

## Teacher

(possible deliberate acts of teaching)

**ASK QUESTIONS** to help students form their intentions for writing.

- What is the problem that your chosen technology solves?
- What kind of audience would find this interesting?
- How will you introduce the problem?
- How will you explain the problem and the solution?

**PROMPT** students to consider the level of detail their readers will need.

- How much detail is needed to make your description or explanation clear? How will you decide which details to include? How can you include the details?
- If you use very technical language, will your audience understand it? How can you add supports for your audience?
- Do you need to add a diagram? If so, what will it show?
- How do your details (including diagrams) add to the reader's understanding?

**MODEL** the less emphatic effect of changing the word order by rewriting a sentence, for example, “They decided to stay even though this new place was vastly different from their homeland.”

- When the subordinate clause comes at the start, it draws my attention to the impact of “even though”. It makes me realise what a huge decision this was for those first visitors.
- Look at your own writing and see if any of your sentences could be stronger if you changed the order of the words, phrases, or clauses.

Some students may need support with identifying the clauses in complex sentences and swapping them around. Find several examples in the text and work through them together. You may want to note that the order may be determined by which part connects to the previous sentence and which is the new information.

You might choose not to put the adjectives first, as in the second example, because it's less common, and some students may find the language too challenging to take into their writing.

### GIVE FEEDBACK

- Your explanation of how this technology solved a problem is clear and precise. The details all help to build my understanding.
- I can see that you've added a diagram and labelled it to help your readers understand how a ... works. It's much clearer to me now.
- Putting those adjectives at the start focused my attention on the important qualities of the ... Well done.



Writing standards: by the end of years 5 and 6



The Literacy Learning Progressions