

# Kūaka: The Marathon Bird

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## Overview

Every September, the kūaka, or bar-tailed godwit, flies more than 11 600 kilometres from Alaska to New Zealand, and each March to June it flies back again. This engaging article explores its remarkable migration – its departure and arrival periods, how fast it flies, where and on what it feeds in New Zealand, and how it manages to fly for long distances without eating. The article also offers a traditional Māori perspective on kūaka.

The text guides the reader with features such as subheadings, topic sentences, and time markers, providing a useful model for students. It also offers helpful comparisons to clarify information such as distances and speeds. Technical language is well supported in the text and illustrations. The text complements the story “The Journey” in the same *School Journal*.

Texts related by theme “Pacific Paradise?” SJ 4.2.10 | “Flight of the Albatross” SJ 3.2.09

## Text characteristics from the year 6 reading standard

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

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)

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

Kūaka have been recorded flying at speeds of 80 kilometres an hour with the help of strong tailwinds – that’s as fast as some cars drive on the open road! Of course, it’s impossible to keep going at that speed. Soon the birds are exhausted. They have to slow down to about 45 kilometres an hour, but that’s still faster than any person could run. **No wonder kūaka can make the marathon trip across the world in less than two weeks.**

The birds arrive in September. While they are in New Zealand, most kūaka stay at estuaries around the Kaipara and Manukau harbours, the Firth of Thames, Farewell Spit, the Marlborough Sounds, Invercargill, and the Avon and Heathcote Rivers near Christchurch.

Kūaka are wading birds. They use their long bills to prod the sand and mud as they search for the marine worms, tiny shellfish, and crabs that they love to eat.



Kūaka digging for food in the soft mud of an estuary



Kūaka at Miranda, Firth of Thames



### The Return Journey

As soon as the kūaka sense that summer is coming to an end in New Zealand, they start to get serious about eating. They need to store up energy for their homeward journey to Alaska – and that energy is stored as fat. The birds will eat until they are double their normal weight. The parts of their bodies that help them digest their food – their gut, kidneys, and liver – shrink by up to one-quarter to make room for all the fat the kūaka are carrying. But that doesn’t matter. The birds won’t stop to eat or drink for thousands of kilometres, so they won’t need to digest anything for a while. They will stop to rest and refuel at staging sites along the way, reaching their breeding grounds in Alaska in May or June.

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

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

Reading standard: by the end of year 6

# Possible curriculum contexts

## SCIENCE (Living World)

LEVEL 3 – Life processes: Recognise that there are life processes common to all living things and that these occur in different ways.

## ENGLISH (Reading)

LEVEL 3 – Structure: Show a developing understanding of text structures.

## ENGLISH (Writing)

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

## Possible reading purposes

- To learn about the annual migration of the kākā between Alaska and New Zealand
- To compare the migratory behaviour of various animals, including the kākā
- To learn about different attitudes to the kākā over time.

## Possible writing purposes

- To write a summary of the annual migration of the kākā, perhaps along a timeline of the year
- To write an article using sections, subheadings, topic sentences, and other features modelled in the text
- To practise using comparisons or examples to explain scientific or mathematical expressions.

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 place names (for example, “Cape Rēinga”, “Alaska”, “Kaipara and Manukau harbours”, “Firth of Thames”, “Farewell Spit”, “Marlborough Sounds”, “Avon and Heathcote Rivers near Christchurch”), the technical vocabulary (for example, “kākā, or bar-tailed godwit”, “tailwinds”, “estuaries”, “marine worms”, “homeward journey”, “gut”, “kidneys”, “liver”, “staging sites”, “breeding grounds”), and other possibly unfamiliar words and phrases (for example, “exhausted”, “prod”, “sense”, “digest”, “refuel”)
- The time and sequence markers – “Every year”, “When the first winter storms hit Alaska”, “Soon”, “in September”, “While they are in New Zealand”, “As soon as ...”, “in May or June”, “Over one hundred years ago”, “around the end of summer”, “For months on end”
- The way the writer adds emphasis by using comparisons and language such as “even” and “really”
- The phrases and expressions – “turn their heads south”, “hitch a ride”, “coming to an end”, “get serious about”.

## Possible supporting strategies

Remind the students of strategies to work out the meanings of unfamiliar words when reading, for example, using picture and text clues or looking for an explanation nearby.

For students who need support with the vocabulary, introduce and record challenging vocabulary during the pre-reading tasks and discussions (see below). After reading, ensure that you provide multiple opportunities for students to use and encounter vocabulary they are learning. Identify new vocabulary that the students should prioritise for learning. *The English Language Learning Progressions: Introduction*, pages 39–46, has useful information about learning vocabulary.

Prompt the students to identify words that might indicate time or sequence in order to help them to keep track of the text.

For students who need support with following time and sequence, you could scan the text to identify time and sequence markers. After reading page 9, prompt the students to identify “Every year” and “When the first winter storms hit Alaska” and discuss their function in the text. Have the students scan the text and find other examples of time and sequence markers. Then ask them to work in pairs, sharing what they found and putting them on a timeline. You could also put the timeline into a table and use it as a graphic organiser to take notes. As they read, the students could add notes on the main events beside each time or sequence marker. As a class, you could revisit the timeline after reading and explore the sentence structures used with the different markers.

## SPECIFIC KNOWLEDGE REQUIRED:

- Knowledge of kākā or other animals that migrate
- Knowledge of geography, especially places in New Zealand and the position of New Zealand relative to other countries
- Knowledge of mathematical concepts, including distances and fractions.

## Possible supporting strategies

Before reading, provide images of animals migrating. (Many are available on the Internet.) Have the students think, pair, and share about what is going on in the images. Clarify the concept of migration. “Can you think of other animals that migrate? Why might they do so and when?”

Introduce the places in New Zealand that the kākā inhabits. Have the students locate the places on a map. “What might the birds like about these places?” (The students can check their ideas when they read.)

## TEXT FEATURES AND STRUCTURE:

- The organisation of the text into sections, with subheadings that engage and inform, and topic sentences that sum up the information to come
- The comparisons with things familiar to readers, including “Imagine running ...”, “that’s as fast as some cars drive on the open road”
- The information about the Māori relationship with kākā in the past and the associated sayings
- The map with a key and the captioned photographs
- The varied verb forms, including the simple present to talk about routines and other things that are always true and the past simple and habitual past (would) to talk about events and habits in the past.

## Possible supporting strategies

Before reading, review the features of factual articles, prompting the students to think about things that help to organise a text and guide the reader (for example, subheadings).

Prompt the students to preview the illustrations and subheadings to get an idea of the content. For students who are likely to find this text challenging, you could spend some time previewing the content (and the language). Give pairs or individual students copies of the illustrations and/or the headings and ask them to make notes under each one, predicting the content, sharing their knowledge, or simply labelling the illustrations (according to their abilities). To create more genuine information sharing at the end and to make the task quicker, you could give the pairs or individuals different sections. Have all the students share their ideas and record them as a group. During this discussion, also note and introduce key vocabulary and record it, beginning a vocabulary list that the students add to as they read. After this discussion, you could also provide a list of key vocabulary items and ask the students to find or match the definitions. Students could write definitions, find them in dictionaries, and/or match definitions that you have provided.

# Instructional focus – Reading

**Science** (Living World, level 3 – Life processes: Recognise that there are life processes common to all living things and that these occur in different ways.)

**English** (Level 3 – Structure: Show a developing understanding of text structures.)

## Text excerpts from “Kūaka: the Marathon Bird”

Imagine running as fast as you can from Cape Rēinga, at the very top ...

Yet every year, the kūaka, or bar-tailed godwit, flies more than five times as far, often without stopping even once to sleep or eat.

### Flying South

Every year, ...

As soon as the kūaka sense that summer is coming to an end in New Zealand, they start to get serious about eating. They need to store up energy for their homeward journey to Alaska ...

The birds won't stop to eat or drink for thousands of kilometres, so they won't need to digest anything for a while. They will stop to rest and refuel at staging sites along the way ...

Over one hundred years ago, Māori and the early European settlers hunted kūaka when they were plump with fat, around the end of summer. Then the birds would disappear for months ...

When something was impossible to find or do, Māori would say “Ko wai ka kite i te hua o te kūaka?” (Who has seen the egg of the kūaka?)

## Students (what they might do)

*The students visualise the scene, making connections with their prior knowledge of the distance involved. They notice “or”, the commas, and the singular “flies” to understand that the “bar-tailed godwit” is another name for the kūaka rather than another bird.*

*The students ask questions about the text to support their understanding of why the birds migrate and how they do it.*

*The students notice the time marker and integrate and evaluate this with information from earlier in the text to work out that the kūaka always leaves when it gets cold.*

*They clarify the apparent contradiction between “The birds won't stop” and “They will stop”. They make connections between the text and the map to infer what the staging sites are and that there must be thousands of kilometres between them. To infer what “breeding grounds” refers to, they make connections with their prior knowledge and possibly to “homeward” earlier in the paragraph.*

*The students identify a shift away from general information about the kūaka, supported by the time marker and change in tense. They ask questions about why no one could find the eggs. They integrate and evaluate information from the previous page to infer that the kūaka lay them in Alaska. They understand that the experiences of Māori with the kūaka led to an expression used more widely.*

## Teacher (possible deliberate acts of teaching)

**MODEL** your thinking about the text and the questions it raises.

- When I first read this text, I thought the godwit flew between Cape Rēinga and Wellington five times, but that didn't make sense given what I know about animal migration. I reread the text and realised that Cape Rēinga and Wellington are simply used as a comparison of distance – to help me visualise how far the kūaka flies. I confirmed the bird's actual migration path on the next page.

**PROMPT** the students to ask questions to support their understanding.

- Asking questions as we read can help us to find information. So when I've read this, my first question is “How can it travel so far without sleeping or eating?”
- At this point, what questions do you have about kūaka migration?

Prompt the students to notice the time marker “every year” and the simple present verb form “flies” and to use these to understand that the text is talking about routines that the birds always follow. Explain that this is one use of this type of verb form – to express routines and things that are always true. Tell the students to pay attention to the time and sequence markers and verb forms in order to identify the stages in the routine and the changes in time frames.

**PROMPT** the students to think, pair, and share to clarify their understanding.

- Turn to your partner. Clarify what time of year the kūaka leave New Zealand and Alaska.
- Discuss what you think staging sites are.

**MODEL** your approach to challenges and implicit information.

- The sentences that start “They won't stop” and “They will stop” confused me. At first I thought the kūaka didn't stop at all, but then I reread the added detail “for thousands of kilometres”. I checked the map and realised that they do stop at the orange areas, which must be thousands of kilometres apart.
- I've noticed something that suggests what the kūaka do when they're back in Alaska. Have you?

**PROMPT** the students to think, pair, and share to clarify their understanding.

- How does this information differ from what we've read so far? What evidence in the text indicates a shift to the past? (Remind the students of your earlier discussion.)
- Where did the birds go? Why couldn't anyone find the eggs? (If necessary, reread the end of page 11.)
- Can you think of any other sayings that are based on animal behaviour (for example, “You can't teach an old dog new tricks”, “Curiosity killed the cat”, “A fish out of water”)? English language learners may be able to share examples from their first languages.

### GIVE FEEDBACK

- I notice that you reread that text to check your understanding. That's a very useful strategy that even very experienced readers need to use, especially when there is a lot of information to manage.
- You checked the illustration for help with the word “estuaries”, and you noticed a caption that helped too – great use of clues for working out an unfamiliar word.

### METACOGNITION

- How did rereading the text support your understanding? Were there things you missed the first time?
- What questions did this text raise for you, and how did you – or could you – go about answering them?

Reading standard: by the end of year 6

The Literacy Learning Progressions

Assessment Resource Banks

# Instructional focus – Writing

**Science** (Living World, level 3 – Life processes: Recognise that there are life processes common to all living things and that these occur in different ways.)

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

## Text excerpts from “Kūaka: the Marathon Bird”

Every year ...

When the first winter storms hit ...

The birds arrive in September.

## Examples of text characteristics

### TIME MARKERS

*Writers use time markers to clearly set out the order in which events appear. They can use markers such as years, seasons, months, or days. In this text, a time marker often indicates a topic sentence – one that conveys the main message of the section.*

## Flying South

Every year, from 85 000 and to over 100 000 kūaka migrate to New Zealand from Alaska ...

## Flying to the Moon

Most kūaka live for about fifteen years.

### SUBHEADINGS AND TOPIC SENTENCES

*Writers use subheadings to break text up into easy-to-read chunks and to introduce the topic of a section, as in the first example here. The paragraph begins with a topic sentence, which states the main point. A reader can scan topic sentences to get a feeling for the content of an entire article.*

*Writers sometimes also use subheadings to attract attention and inspire questions, as in the second example here.*

Kūaka have been recorded flying at speeds of 80 kilometres an hour with the help of strong tailwinds – that’s as fast as some cars drive on the open road!

### COMPARISONS

*Making comparisons with things that your readers are likely to know about can help them to understand concepts that are abstract, difficult, or unfamiliar.*

## METACOGNITION

- What aspects of this text helped you with your own writing? How?
- How did you decide to use a subheading? What other texts have you written that could benefit from subheadings?
- How did you make your message clear to your reader?

## Teacher

(possible deliberate acts of teaching)

**DIRECT** the students to work in pairs or small groups to summarise the migration of the kūaka along a timeline of a year. The students could share, discuss, and illustrate their timelines afterwards.

- What intervals will you use for your timeline, for example, seasons, months, weeks, days, hours? At what date or period will the timeline begin?
- What are the key events or main messages that you will note along the timeline (for example, departure and arrival periods, breeding, feeding)? What details will you leave out? Why?

For students who need support with using time and sequence markers, provide scaffolded practice with using them in speaking and writing. For example:

- give the students the sentences from the text with the time and sequence markers left out and ask them to fill them in from a bank provided
- give the students illustrations and/or place names as prompts and ask them to retell the migration of the kūaka in pairs, using time and sequence markers
- refer back to the routines of other animals that you have studied and ask the students to describe them to each other
- have the students write a summary of a routine, using time and sequence markers (some students may need sentence starters to do this).

**ASK QUESTIONS** around the purpose of the second subheading.

- Do the kūaka really fly to the Moon? What’s the purpose of this subheading? (Elicit how it attracts attention and makes a comparison.) How can you use the strategy of attracting attention and making a comparison in your writing?
- What else could the subheading say? Which would be more effective and why? Have a go at writing one or two and share them with a partner.

**PROMPT** the students to look for opportunities to divide their own texts into chunks for their readers.

- What are the main topic areas in your article? Where do the topics shift?
- How can you state the main idea of this section in a way that will inform or engage readers – or both?

**PROMPT** the students to experiment with making comparisons as a way to explain concepts (perhaps distances, speeds, or weights).

- Can you think of something that this concept is similar to and that your readers will know about? For example, “The blue whale is about 30 metres long – the length of ...” “A kiwi egg is 14 centimetres long ... x times the size of ...”
- Some students may benefit from exploring the vocabulary and sentence structures used to make comparisons, using the examples in the text, co-constructing further examples, and creating their own in speaking and writing.

## GIVE FEEDBACK

- The comparison you make with the length of a bus really helps me to imagine the size of the whale.
- The heading you’ve chosen signals the content below and also keeps me interested.

 Writing standard: by the end of year 6

 The Literacy Learning Progressions