

# Promoting kaitiakitanga using picturebooks

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Kaitiakitanga is promoted in the revised curriculum document *Tē Whāriki—He Whāriki Mātauranga mō ngā Mokopuna o Aotearoa: Early Childhood Curriculum* (Ministry of Education, 2017). The authors give primacy to the Māori world-view of sustainable living through engaging with, and protecting, the natural environment. This article reports on a picturebook research project designed to support teachers to explore kaitiakitanga with young children in early childhood education settings. Two Aotearoa New Zealand picturebooks are featured, curriculum links are proposed, and feedback from a small sample of teachers about the picturebooks and curriculum links is reported. Picturebooks are powerful teaching tools and can provoke learning across the curriculum, as this research highlights.

## Introduction

### Kaitiakitanga

In *Tē Whāriki*, the bicultural early childhood curriculum, kaitiakitanga is defined as “guardianship, environmental stewardship” (Ministry of Education, 2017, p. 66). Within mātauranga Māori<sup>1</sup> kaitiakitanga is about being caretakers or guardians of the natural world (Paul-Burke & Rameka, 2015). Rameka (2021) also describes kaitiakitanga as the roles and responsibilities we have, and the ability for one to give, nurture, save and contribute to the collective of looking after places and things.

Kaitiakitanga envelops the relationship between people and the environment. In a creation pūrākau Hineahuone, the ancestor of humanity, was formed from red clay by Tāne Mahuta, the atua of the forest and birds. This pūrākau depicts the strong kinship that exists between the earth and Māori.

In the revised (2017) version of *Tē Whāriki*, kaiako are encouraged to “support mokopuna to engage respectfully with, and to have aroha for, Papatūānuku. The authors have drawn on indigenous Māori cultural views of sustainable living and “encourage an understanding of kaitiakitanga and the responsibilities of being a kaitiaki by, for example, caring for rivers, native forest, and birds” (Ministry of Education, 2017, p. 33).

Kaiako also provide children “with regular opportunities to connect with the wider natural environment and with materials drawn from nature” to encourage a sense of kaitiakitanga (p. 50).

### Background

The effects of pollution, global warming, and deforestation are increasingly being felt in Aotearoa New Zealand and globally. Because of human action influencing the earth’s habitat and environments in an irreversible manner, this geologic epoch has been called the Anthropocene (National Geographic Society, 2019). Local environmental problems caused by humans have now evolved into global issues, and scientists and researchers are urging us all to consider how we act in the world.

The United Nations Decade of Education for Sustainable Development (DESD) (2005–2014) promoted education as a means of advancing a more sustainable future. Many countries were persuaded to sign up to sustainable development goals (SDGs) and targets. The aim was for countries to integrate the principles, values, and practices of education for sustainable development (ESD) in all education and learning systems (UNESCO, 2021). The New Zealand Government signed up to 17 SDGs and 169 targets in 2015 (UNESCO New Zealand, 2021) meaning we are obliged to promote education for a sustainable future in all areas of education and learning. 1008 (41%) schools and 445 (13%) kindergartens participating in the

1 Te reo Māori is glossed at the end of the article.

Enviroschools programme in New Zealand is a step forward, especially as participation rose after additional funding was made available in 2015 (Toimata Foundation, 2022).

Heightened awareness of the issues and these initiatives have led an increasing number of people to practise living in a manner that promotes sustainability and conservation. Sustainable living and having an ethic of care for the environment are some of the solutions for global warming and climate change proposed by the Ministry for the Environment (2022) along with education for a sustainable future (UNESCO, 2005).

Teaching and learning about sustainable living, including indigenous worldviews, has led to numerous research studies including in the early childhood education (ECE) sector in Aotearoa New Zealand, Australia and beyond (Kelly & White et al., 2013; Ritchie et al., 2010; Davis & Elliott, 2014; Elliott et al., 2020). The 1996 edition of *Te Whāriki* was refreshed during this period of heightened awareness (Ministry of Education, 1996, 2017). According to Te One and Ewens (2019) some of the reasons were the government signing up to the SDGs in 2015 and their commitment to highlighting indigenous Māori practices about caring for the environment.

## Rationale for the research—Why picturebooks?

Picturebooks have been used widely by children and educators to explore visual and written language. Kelly-Ware and Daly (2019) highlight how picturebooks can act as a vehicle to deeply engage children with ideas that they may or may not be familiar with “if they are critiqued and analysed with children” (p. 1). Bishop’s (1990) metaphor of mirrors and windows describes the role of picturebooks—when the illustrations and words reflect children’s lives, picturebooks act as mirrors, and when picturebooks open ways to learn about ideas and lives of others they can act as windows. Children are competent to understand complex visual texts and make meaning of various perspectives, while analysing the illustrations (Arizpe & Styles, 2016). Introducing or extending concepts of kaitiakitanga through picturebooks is an idea worth exploring, hence this research study.

## The research

The first stage of this research entailed sourcing picturebooks that met specific criteria followed by content analysis of the selected picturebooks (Johnson et al., 2016). Common themes were derived from the analysis (see Table 1). During the analysis process the researcher (lead author Fernando) also developed curriculum links related to each picturebook as she read and analysed them akin to Daly and McKoy’s (2013) work on the New Zealand Picturebook Collection’s Curriculum Links.1

In the second stage kaiako were invited to participate and surveyed about their perspectives and the selected picturebooks and curriculum links via a Google form questionnaire. This project received ethical approval from the Faculty of Education Ethics Committee and was completed as part of the lead author’s Masters in Education degree at The University of Waikato (UoW).

## Research questions

1. In the past 10 years, what picturebooks have been published written by New Zealand authors that promote themes of sustainability and kaitiakitanga?
2. What common themes were derived from the analysis of the selected picturebooks related to sustainability, conservation and kaitiakitanga?
3. How did kaiako respond to the chosen picturebooks and the related curriculum links developed by the researcher that were shared with them?

Six kaiako from two ECE settings took part in the research. All were aware of the concept of kaitiakitanga, agreed on the importance of embedding the concept into their teaching practice, and offered valuable feedback about the proposed curriculum links. No specific questions were asked of the kaiako about how they integrate the concept of kaitiakitanga in their teaching as this study focused specifically on picturebooks. This is flagged as a topic for further research.

The findings from research questions one and two are presented in relation to the nine selected picturebooks. Two picturebooks will then be profiled in relation to the themes found, their accompanying curriculum links developed by the researcher, and feedback from the kaiako participants.

## The picturebooks—selection and analysis results

Picturebooks were located from Teaching Resources Library (UoW) and the Rotorua Public Library with the assistance of librarians. The range of picturebooks was narrowed to picturebooks written by New Zealand authors. The intention was to gauge the response of authors and publishers to the growing awareness and publicity given to sustainability and kaitiakitanga in Aotearoa New Zealand in the past 10 years.

The keywords “sustainability”, “nature”, “kaitiaki” and “kaitiakitanga” were used to locate the picturebooks from the institutions’ databases. An identification method was discovered at Rotorua Public Library and found to be used elsewhere, including Tauranga and Hamilton public libraries—a kiwi sticker on the spine indicates that the picturebook is written by a New Zealand author.

Thirty-five picturebooks were initially sourced and carefully read. While most of these picturebooks had nature themes, concepts of sustainability and kaitiakitanga were not evident in them all. The selection was reduced to nine picturebooks, chosen because they contained explicit themes of sustainability and kaitiakitanga.

Content analysis (Johnson et al., 2016) was used to analyse the nine selected picturebooks. While reading the chosen picturebooks, categories that existed in each picturebook were listed. The categories were then concentrated into four themes. For example, “issues relating to nature” was combined with “problems human cause”. Finally, four themes were settled on as Table 1 illustrates. Table 2 details each picturebook and the themes found therein.

## Findings

Two award-winning picturebooks are now profiled including their storylines, discussion of the illustrations, appeal to children, themes found in each picturebook and examples of feedback from kaiako via the survey questionnaire. The proposed curriculum links relate to the learning outcomes of *Te Whāriki* (Ministry of Education, 2017) and have not yet been trialled. They could be used by kaiako to explore concepts of kaitiakitanga, sustainability, and conservation practices with tamariki.

TABLE 1. THE FOUR THEMES FOUND IN THE SELECTION OF PICTUREBOOKS (COLOUR-CODED)

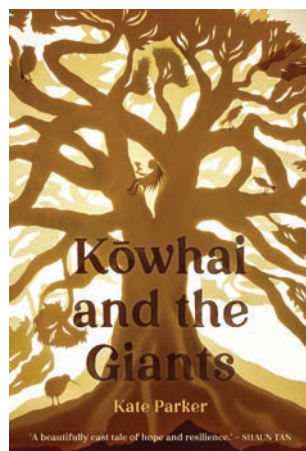
Kaitiaki of Ranginui and Papatūānuku	■
Te ao Māori	■
Problems humans cause	■
Sustainable and conservation practices	■

TABLE 2. THE NINE PICTUREBOOKS AND THE THEMES FOUND IN EACH PICTUREBOOK.

	Citation	Title	
1	Parker, K. (2021).	<i>Kōwhai and the Giants</i>	■ ■ ■ ■
2	Paul, R. (2019).	<i>Little Hector and the Big Idea</i>	■ ■ ■ ■
3	Gill, M. (2017).	<i>Toroa's Journey</i>	■ ■ ■ ■
4	ARRC Wildlife Trust. (2015).	<i>Wiremu and the Cat Gang</i>	■ ■ ■ ■
5	Beyer, R., & Wellington, L. (2015)	<i>Tamanui: The Brave Kōkako of Taranaki</i>	■ ■ ■ ■
6	Begovich, B. (2015)	<i>The Bugs and Me</i>	■ ■ ■ ■
7	Begovich, B. (2014a)	<i>The Sea and Me</i>	■ ■ ■ ■
8	Begovich, B. (2014b)	<i>The Trees and Me</i>	■ ■ ■ ■
9	Mewburn, K. (2013)	<i>Luther and the Cloud-makers</i>	■ ■ ■ ■

## Kōwhai and the Giants

Written and illustrated by Kate Parker  
Published by Little Love, 2021



### Storyline

The key message is how to correct the past wrongs done to the earth by humans. There is also hope that someone small can instigate change and inspire others to join them. Kōwhai is a small person who appeared from the glow of a flower and lived with the giant trees in the forest of Aotearoa. Human settlement accelerated the destruction of native forests. A seed of one of the giant trees, Kōwhai calls out for help. Eventually a few people hear her call and then others join in to restore the forest.

### Illustrations and appeal to children

Kate Parker created the illustrations from hand-cut paper, placed in a glass box, lit from behind. The light coming through the paper darkens and lightens the images creating a sense of past and future. Fine details embedded in the illustrations are not explicitly stated in the text. Kaiako are encouraged to discuss and analyse the illustrations with tamariki. Tamariki will notice the emu and bird on the clouds, and some are likely to question why the birds are there.

### Kaitiaki of Ranginui and Papatūānuku

Reforestation native tree giants, such as kauri and rimu, is the theme of this picturebook. According to te ao Māori beliefs, the trees and forests belong to Tāne Mahuta, the atua of the forest (Royal, 2007). In *Te Whāriki* kaiako are tasked with supporting children to become kaitiaki of the natural world out of respect for Ranginui and Papatūānuku (Ministry of Education, 2017). This picturebook could be a catalyst to support children to become kaitiaki of the

native trees and the bush in their ECE settings, homes, and neighbourhoods.

### Te ao Māori

Te ao Māori themes are evident in the text and in the illustrations in this picturebook starting with Kōwhai, the name of the central character. The illustrations show how Māori came to Aotearoa on waka with the stars to guide them—celestial navigation. The text notes that Māori lifestyle centres on living as one with the land.

### Problems humans cause

The main problems that humans have caused are deforestation and the subsequent extinction of animals. This picturebook highlights how native forests were cut down in the (Pākehā) settlement of Aotearoa New Zealand. This is a great example of how picturebooks can be windows to look at other perspectives (Kelly-Ware & Daly, 2019). Children can gain knowledge and understanding of environments that they may not have direct access to. This picturebook could support understanding about why some native plants and birds have become extinct.

### Sustainable and conservation practices

Deforestation is a major cause of global warming, and animal extinction is a result of climate change and human actions (Scheer & Moss, 2012). Through this picturebook these issues can be introduced to tamariki. Planting native seeds is introduced therein to reforest the traditional bush in Aotearoa providing a sustainable solution to the issue of global warming.

### Feedback from kaiako

All six kaiako who participated in the study had read this book. Three of the kaiako specifically mentioned that they would use this picturebook again. One kaiako suggested that this book may be more useful in projects:

It seems much more suited to being part of a project where there has been discussion about conservation and linked to maybe a project involving growing native seeds and then planting them in a bush restoration.

Another kaiako commented on the curriculum links noting how ideas from another person were like “having a virtual collaborator with me”. This kaiako also commented on the usefulness of the link for the *Communication / Mana reo* strand and described how it prompted her thinking:



The [Te Whāriki] Communication strand which I had not thought about included an arts suggestion that would be fantastic to try with children, also the retelling idea—children see Kōwhai as a fairy and them dramatising the story would help me understand if this was really their working theory or if they had a different one, plus rewriting and dramatising would deepen their understanding of the story.

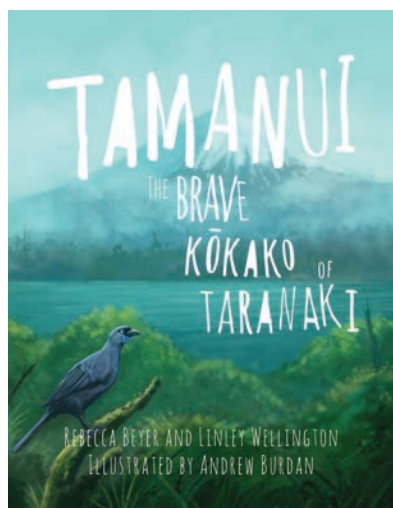
## Curriculum links

Strand	Learning outcome
<i>Belonging / Mana whenua</i>	<p>Making connections between people, places, and things in their world / te waihangā hononga</p> <p><b>Suggestions for kaiako</b></p> <p>Reading <i>Kōwhai and the Giants</i> to tamariki will initiate or reinforce their connections with trees and the bush. Kaiako can ask probing questions about whether tamariki walk in the bush and see native trees as well as arranging excursions to nature settings (Sobel, 2014; 2017). Kaiako may also have <i>The Life-size Guide to Native Trees and other Common Plants of New Zealand's Native Forest</i> (Crowe, 2000) on hand to assist with identification.</p>
	<p>Taking part in caring for this place / te manaaki i te taiao</p> <p><b>Suggestions for kaiako</b></p> <p>After reading <i>Kōwhai and the Giants</i>, kaiako can have conversations with tamariki about how we can look after our native trees. Planting native seeds can also be introduced as a sustainable practice to reforest the traditional bush (World Vision, n.d.).</p> <p>A great starter for a project or an inquiry about exploring how to become a kaitiaki of the environment or adding value to an existing project or inquiry related to the concept of being kaitiaki in the domain of Tāne Mahuta (atua of forests and of birds and insects).</p> <p>Information and a link are available at the back of the picturebook to Forest and Bird's Kiwi Conservation Club – Hakuturi Toa website <a href="http://www.kcc.org.nz">www.kcc.org.nz</a> for inspiring tips.</p>

<i>Communication / Mana reo</i>	<p>Using gesture and movement to express themselves / he kōrero ā-tinana</p> <p><b>Suggestions for kaiako</b></p> <p>Tamariki can tell and retell stories about how they look after living creatures. Additionally, kaiako could support children to create their own literacy artefacts in the form of picturebooks that they have written and illustrated. The story could also be dramatised and a new ending could possibly be created.</p>
	<p>Enjoying hearing stories and retelling and creating them / he kōrero paki</p> <p><b>Suggestions for kaiako</b></p> <p>Tamariki can be encouraged to represent the story of <i>Kōwhai and the Giants</i> through the arts.</p> <p>Kaiako could support tamariki to imitate the techniques used by the illustrator of <i>Kōwhai and the Giants</i>, e.g., making artworks in lightboxes to tell their own stories of being kaitiaki</p>

## Tamanui: The Brave Kōkako of Taranaki

Written by Rebecca Beyer and Linley Wellington. Illustrated by Andrew Burdon. Published by Huia Publishers, 2015. This is also available as a Māori-language edition, *Tamanui: Te Kōkako Mōrehu o Taranaki*.



## Storyline

*Tamanui: The Brave Kōkako of Taranaki* is based on the true story of a kōkako who lived in the Taranaki Forest. Tamanui and his family faced many challenges as rats and possums were introduced. At the start of the story Tamanui has a big

family. However, as rats and possums raid the nests, taking eggs, chicks and kōkako, Tamanui loses his family at a rapid rate until only he and his younger brother survive. People who care for birds take Tamanui to a wildlife sanctuary on Mount Bruce, where there are only a few other rescued kōkako (along with other endangered wildlife). The story ends on a high note when Tamanui has chicks of his own and a promise to return to a safe Taranaki Forest one day.

## Appeal to children

The predatory behaviour of rats and possums is highlighted. Children would likely be keen to follow what happens to Tamanui. The kōkako family engage in special events such as storytelling times making it relatable for tamariki who can connect with Tamanui and his brothers.

## Kaitiaki of Ranginui and Papatūānuku

Manu are the tamariki of Tāne Mahuta the atua of the forest. The illustrations show a pōwhiri held for the manu when they were rescued and relocated, highlighting connections with te ao Māori, and amplifying the ethic of care and being kaitiaki of the tamariki of atua Māori.

## Te ao Māori

The main character's Māori name connects with Tamanui-te-rā, the sun, and suggests that as the sun rises so too will the population of kōkako as a result of efforts to protect them. Te ao Māori themes are also evident in the illustration of the pōwhiri ceremony for Tamanui when he was taken to Pūkaha on Mount Bruce, a restored forest and captive breeding site, home to endangered wildlife.<sup>2</sup>

## Problems humans cause

Rats and possums were introduced to Aotearoa many years ago and have caused problems ever since. The story does not specify this as a problem that humans cause, however this could be a topic for discussion with tamariki while reading this picturebook.

## Sustainable and conservation practices

The highlight is an ethic of care for birds. People can make a difference protecting wildlife including kōkako manu. The importance of looking after native birds is explained in a fact sheet. This is a great example to introduce knowledge of conservation practices to tamariki.

## Feedback from kaiako

One kaiako described this picturebook as a “wonderful retelling of a true conservation story”. Two kaiako had heard of this book and four kaiako had read this book. Two kaiako specifically commented that they would use this book again. One kaiako shared some other ways of using this picturebook.

Include it in a project about birds and the environment. While it is about native birds, you could even talk about how to look after the birds that come to the centre, for example protection from cats based on where we put our bird feeders, what we feed birds, what plants we plant in the garden. While this is not really what the story is about it could be used to help children understand that they can be kaitiaki wherever they are.

## Curriculum Links

Strand	Learning outcome
<i>Wellbeing / Mana atua</i>	<p>Keeping themselves and others safe from harm / te noho haumarua</p> <p><b>Suggestions for kaiako</b></p> <p>This is a great resource to start conversations about keeping manu and other living creatures safe from harm. Kaiako could talk about what actions humans take that can protect or cause harm to birds. For example, how to respect bird nests and bird eggs when we find them.</p>
<i>Belonging / Mana whenua</i>	<p>Making connections between people, places, and things in their world / te waihanga hononga</p> <p><b>Suggestions for kaiako</b></p> <p>In collaboration with whānau and the community, kaiako may find local places where wildlife is being supported. Visiting these places regularly would support local curriculum by enabling tamariki to build connections to local places and learn about local fauna and flora.</p>
	<p>Taking part in caring for this place / te manaaki i te taiao</p> <p><b>Suggestions for kaiako</b></p> <p>Making bird baths, bird feeders and keeping an eye out for nests after storms are ways that kaiako can promote care for the living creatures found in their place/space.</p>

<i>Communication / Mana reo</i>	<p>Enjoying hearing stories and retelling and creating them / he kōrero paki</p> <p><b>Suggestions for kaiako</b></p> <p>Tamariki can tell and retell stories about how they look after living creatures. Additionally, kaiako could support children to create their own literacy artefacts in the form of picturebooks that they have written and illustrated.</p>
	<p>Expressing their feelings and ideas using a wide range of materials and modes / he kōrero auaha</p> <p><b>Suggestions for kaiako</b></p> <p>The story can be acted out as a dramatisation. The script can be rewritten with ideas from tamariki.</p>
<i>Exploration / Mana aotūroa</i>	<p>Using a range of strategies for reasoning and problem solving / te hīraurau hopanga.</p> <p><b>Suggestions for kaiako</b></p> <p>Kaiako can kōrero with tamariki during or after reading the picturebook about other ways that Tamanui and his whānau could have been helped. The ideas could be documented in a brainstorm and shared with the local conservation groups.</p> <p>Members of a local conservation group could visit the ECE setting and/or they could accompany tamariki on nature-based excursions. This involvement will support local curriculum, build connections with the community, and enable tamariki to have a primary experience with conservation work.</p>

## Conclusion

This research generated new knowledge that is consistent with existing literature and research in the broader field of environmental education, picturebook pedagogy and promoting sustainability and kaitiakitanga in ECE and other education settings. Promoting kaitiakitanga and sustainability in Aotearoa New Zealand is highly topical as the effects of pollution, global warming, and deforestation become increasingly felt, most recently across Aotearoa New Zealand in February 2023. Young children are aware of these issues and can learn how to be agents for positive change.

The Ministry of Education (2017) encourages the promotion of kaitiakitanga with young children. The strands of *Te Whāriki*—*Belonging / Mana whenua* and *Exploration / Mana taiao* explore how teachers could support tamariki to become kaitiaki of the natural world.

When children are exposed to environmental sustainability concepts early on, they will develop skills and knowledge to care for the environment throughout their lives (Ritchie et al., 2010). Thus, the knowledge from the picturebooks could be an essential component in supporting tamariki in the early years to become lifelong kaitiaki of the natural world by following sustainable practices, and practising conservation.

The power of picturebooks should not be underestimated and these stories beautifully crafted by authors and illustrators from Aotearoa New Zealand include rich te ao Māori themes and represent a growing body of children’s literature on kaitiakitanga and sustainability. The kaiako in this research had used most of these picturebooks with tamariki to deepen their understanding of sustainable practices and ways to be a kaitiaki of the natural world. They supported the notion that picturebooks are powerful pedagogical tools to explore important concepts with tamariki.

The findings of this research, including the curriculum links, can support kaiako to reflect on their current pedagogy in terms of developing awareness and understanding of sustainable practices and conservation with tamariki. Kaiako might be provoked to extend their picturebook pedagogy through gaining fresh perspectives on using picturebooks. Furthermore, the responses from the kaiako who participated in this study give insights into the two books. It is hoped kaiako will source and use the picturebooks that form the basis of this research in their teaching practice. They are also encouraged to try out the proposed curriculum links to *Te Whāriki* to explore being kaitiaki of the natural world with tamariki in their education settings.

1. <https://www.picturebooks.co.nz/index-of-nzpb-themes-and-curriculum-areas/>
2. <https://pukaha.org.nz/>

## Glossary

*Tē reo Māori as used in this article.*

<b>atua</b>	a god
<b>kaiako</b>	teacher
<b>manu</b>	bird
<b>pōwhiri</b>	welcome ceremony
<b>pūrākau</b>	traditional story
<b>mātauranga Māori</b>	Māori knowledge

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