

## Episode Overview

In this episode we look at kaitiakitanga (guardianship and protection) through the perspective of our moana (oceans). We visit the Tangata o le Moana exhibition in Te Papa and see a model of a waka hourua (double hulled waka), and use computer assisted design to create a model waka. This episode is designed for students working at levels 3-5 of the NZ curriculum.

## Resources to Support Whānau with Learning from Home

*Digital technology is now a compulsory part of the New Zealand Curriculum that can be woven across other learning areas to create authentic future focused learning.*

This resource will support you and your child to extend their learning with links to support materials for our digital tools and unplugged activities, further research and print resources that you can use at home.

### Unplugged Activity – Paper craft, make a double hulled waka

Use paper craft to construct a waka hourua. [Instructions available here.](#)

### Digital Tool Tips and Tricks - Tinkercad

[Tinkercad.com](https://www.tinkercad.com) is a free, online tool for 3D design. 'CAD' stands for Computer Assisted Design. This sort of design app is what an architect uses to draw 3D designs. Watch our introductory video: [Introducing Tinkercad](#) or [Ko Tinkercad Tēnei](#). [View the Educator guides](#). Episode 6 shows you how you can use Tinkercad to create a model waka.

## Curriculum Links for Teachers

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| <b>Technology Progress Outcomes</b>                | <a href="#">Designing and Developing Digital Outcomes</a><br>PO3: In authentic contexts, students follow a defined process to design, develop, store, test and evaluate digital content to address given contexts or issues, taking into account immediate social, ethical and end-user considerations.   |
| <b>NZC Learning Areas</b>                          | <a href="#">Technology</a> - <b>Nature of Technology</b> - Students develop an understanding of technology as a discipline and of how it differs from other disciplines. They learn to critique the impact of technology on societies and the environment and to explore how developments and outcomes are valued by different peoples in different times. As they do so, they come to appreciate the socially embedded nature of technology and become increasingly able to engage with current and historical issues and to explore future scenarios.<br><a href="#">Social Sciences</a> - <b>Place and Environment</b> – Students learn about how people perceive, represent, interpret, and interact with places and environments. They come to understand the relationships that exist between people and the environment. |
| <b>Learning Intentions</b>                         | Understand that there is a reciprocal relationship between the ocean and human life.<br>Explore how our tupuna may have planned for a long journey across the ocean using the technologies and resources that they had available.<br>Design a waka hourua replica using Tinkercad.  |
| <b>Success Criteria - Students will be able to</b> | Identify essential design aspects of a waka hourua, and navigation methods that were used by our tupuna.<br>Resize and group basic shapes in Tinkercad to produce a digital replica of a waka hourua that includes essential design elements needed for a journey across the ocean.   |

# Ngā Hononga ki te Marautanga

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|------------------------------------|--|
| <b>Te Aho Hangarau Matihiko</b>    | <b>Whakaaro Rorohiko (Whakatupuranga 2):</b> Ko te hanga hātepe -Ka mārama ko tēnei mea te hātepe, he tukanga tohutohu ki te whakaoti hopanga, ka taea hoki te whakamahi i ēnei ki te tuhi papatono rorohiko, ā, me tika, me hāngai ngā tohutohu kia taea ai e te rorohiko te whai. Ka hoatu, ka whai hoki i ngā hātepe patuiro ngāwari i roto i ngā taiao rorohiko, rorohiko-kore hoki. Ka taea ēnei hātepe te whakamahi ki te hanga papatono māmā mā te whakauru i ngā mea pēnei i te tāuru, i te tāputa me ngā raupapanga i tēnei taiao hanga papatono. |
| <b>Te Marautanga Wahanga Ako 1</b> | <b>Tikanga ā Iwi:</b> Te Whakaritenga Pāpori me te Ahurea - Ka whakawhanake mōhiotanga te ākongā ki: ngā take me ngā huarahi e whakarite ai te tangata i a ia anō ki te whakatutuki i ōna matea; ngā motika, ngā tūranga me ngā haepapa o te tangata i a ia e pāhekoheko ana i waenga rōpū; te hononga o te ahurea ki te tuakiri o te tangata me ngā putanga iho o te pāhekohekotanga ahurea.  |
| <b>Te Marautanga Wahanga Ako 2</b> | <b>Hāngarau (Te Whakaharatau Hangarau):</b> Ētahi Pūkenga Hangarau - te whakaraupapa i nga mahi hei hātepe; te arotake i ngā hātepe me te otinga i runga i te aro nui ki te take; te tīpako me te whakamahi i ngā mātāpono hangarau me ngā pūkenga ā-ringa, ngā pūkenga auaha e puta ai he otinga.   |
| <b>Ngā Whainga Ako</b>             | Te tautuhi, te whakarite he waka hei oranga mo te whānau, hāpū, iwi. Whakarite ngā whakaaro hātepe ka waihanga he waka hourua. Ka whakamātau, ka aromātai i te hoahoa. Ka kōwhiritia tētahi huarahi kia tika rawa.   |
| <b>Ngā Putanga Ako</b>             | E mōhio ana te waihanga he waka hourua.<br>E mōhio ana he aha ai ngā hātepe kia hangahanga he ahuahanga matihiko<br>E mōhio ana te tini ngā ahua matihiko ki te rahi.<br>Ka whakaraupapatia he mahere hoahoa whaitake.   |

## Learning Links and Reading Lists for Whānau and Teachers

### Extension Activities

[Navigating by the stars](#) (Science Learning Hub)  
[Constellations in the night sky](#) (Science Learning Hub)  
[Learnz Matariki and Navigation – Kupe, Cook and Today](#)  
[Tinkercad He Wero Hoahoa: Challenge](#)

### Research Links

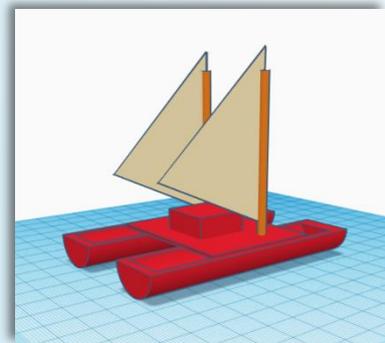
[Land of Voyagers](#)  
[He Whenua Rangatira. A Māori land](#) (YouTube)  
[Stellarium](#)  
[Te Papa Tongarewa Museum of New Zealand](#)

### Print Resources

[Paper craft – waka hourua instructions](#)  
[Tinkercad printable instructions](#)

### Literacy Resources

Journal series: [Journey on the Sea](#) (August 2018, Level 3)  
[Iris and Dogstar](#) (May 2019, Level 3)  
[Tupaia: Master Navigator](#) (August 2019, Level 3)  
[Captain Cook Charting Our Islands](#) (May 2016, Level 4)  
[Explorers of the Sunrise](#) (School Journal Story Library, Level 4)



mtg Hawke's Bay

WAITANGI  
TREATY GROUNDS

Waikato Museum  
TE WHARE TAONGA O WAIKATO

The Raranga Matihiko programme is funded by the Ministry of Education Digital Technologies for All Equity Fund. [www.rarangamatihiko.com](http://www.rarangamatihiko.com)

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Matihiko tv  
weaving museum taonga and digital learning together

