



Kaikorai PBL Plan : Focus -

Project Name: Voyages

Duration: 10 weeks

Teachers: John Bish, Megan Day, Jill Kumar, Amy McBeath

Middle Syndicate

Driving Question:

How can we as chroniclers (storytellers) tell the amazing story of Pacific migration?

Project Summary (including client)

Gold Standard PBL

Seven Essential Project Design Elements



In this project, students create an interactive book (using Book Creator) to celebrate and commemorate Māori voyaging and voyagers. Each class chooses a navigational tool, skill or knowledge needed by a Pacific navigator and analyzes the key understandings necessary for a successful voyage. Students create an interactive book with information and accompanying images, audio, or video that enhance the important ideas they need to share.

Teams collaborate to produce an interactive book that ties the ideas together around a common theme. Finally, students work together as a class (and school) to create a community exhibition featuring their interactive books.

Clients:

- *Our parent community*
- *Experts who we have worked together with during the project*

Key Competencies	<u>KAIK Values</u> - give examples
<ul style="list-style-type: none"> ● Thinking ● Using Language, Symbols & Text ● Managing Self ● Relating to Others ● Participating & Contributing 	Kind Aspiring Independent Keen
Curriculum area and achievement objectives	
<p>From <u>Aotearoa New Zealand's Histories in the New Zealand Curriculum</u> (Draft for Consultation):</p> <p>UNDERSTAND:</p> <ul style="list-style-type: none"> ● Māori history is the foundational and continuous history of Aotearoa New Zealand. <ul style="list-style-type: none"> - Māori have been settling, storying, shaping, and have been shaped by these lands and waters for centuries. Māori history forms a continuous thread, directly linking the contemporary world to the past. It is characterised by diverse experiences for individuals, hapū, and iwi within underlying and enduring cultural similarities. <p>KNOW:</p> <ul style="list-style-type: none"> ● Migration and Mobility (Years 1-3) <ul style="list-style-type: none"> - Māori voyaged across the Pacific and became tangata whenua: the indigenous people of this place. Māori navigation to Aotearoa New Zealand was deliberate and skilful. - Migrant connections with the Pacific have been important and continue to be so. ● Migration and Mobility (Years 4-6) <ul style="list-style-type: none"> - Polynesian peoples arriving in Aotearoa New Zealand had already explored vast areas of the Pacific Ocean, creating island settlements from Hawaii in the North to Easter Island in the East to Aotearoa New Zealand in the South. - The stories of iwi and migrants from different periods in our history convey their reasons for and experiences of migration. Sometimes these experiences were negative because of the way migrants were treated. <p>DO:</p> <ul style="list-style-type: none"> ● Identifying and using sequence (Years 1-3) I can retell a story from the past using an appropriate frame of reference. ● Identifying and using sequence (Years 4-6) I can construct an historical sequence of related events and changes and recognise that others might sequence it differently. 	

Technology in the New Zealand Curriculum

TECHNOLOGICAL PRACTICE

- **Planning for practice**
 - Develop a plan that identifies the key stages and the resources required to complete an outcome.
- **Brief development**
 - Explain the outcome they are developing and describe the attributes it should have, taking account of the need or opportunity and the resources available.
- **Outcome development and evaluation**
 - Investigate a context to develop ideas for potential outcomes. Evaluate these against the identified attributes, select, and develop an outcome. Evaluate the outcome in terms of the need or opportunity.

DESIGNING AND DEVELOPING DIGITAL OUTCOMES (Progress outcome 1):

- In authentic contexts and taking account of end- users, students participate in teacher-led activities to develop, manipulate, store, retrieve and share digital content in order to meet technological challenges.
In doing so, they identify digital devices and their purposes and understand that humans make them. They know how to use some applications, they can identify the inputs and outputs of a system, and they understand that digital devices store content, which can be retrieved later.

Science in the New Zealand Curriculum

UNDERSTANDING ABOUT SCIENCE

- Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation.

**KĀPEHU WHETŪ
SCIENCE**

Astronomical Systems (L3)

- Investigate the components of the solar system, developing an appreciation of the distances between them.

**BIRD MIGRATION
SCIENCE**

Ecology

- Recognise that living things are suited to their particular habitat.

**PREPARING FOR A JOURNEY
HEALTH & PHYSICAL
EDUCATION**

Safety management

- Identify risk and use safe practices in a range of contexts.

**WAKA HOURUA
SCIENCE**

Physical inquiry and physics concepts

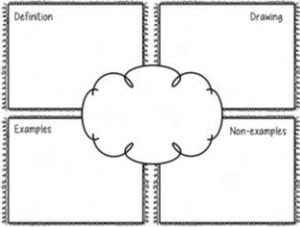


- Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.

Key Milestone 1 Launch	Key Milestone 2 Build Knowledge	Key Milestone 3a Build Knowledge	Key Milestone 3b Build Knowledge	Key Milestone 3c Build Knowledge	Key Milestone 3d Build Knowledge	Key Milestone 4 Develop & Critique	Key Milestone 5 Present
<p>Entry Event</p> <p>Students explore the theme and generate need to know questions.</p>	<p>Research the Issue:</p> <p>Students explore the basics of Pacific migration to Aotearoa New Zealand.</p>	<p>Research the Issue:</p> <p>Students understand the various ways people can use to guide their travels. KĀPEHU WHETŪ</p>	<p>Research the Issue:</p> <p>Students understand the various ways people can use to guide their travels. BIRD MIGRATION</p>	<p>Research the Issue:</p> <p>Students understand the specific knowledge and skills Māori explorers needed. PREPARING FOR A JOURNEY</p>	<p>Research the Issue:</p> <p>Students understand the specific knowledge and skills Māori explorers needed. WAKA HOURUA</p>	<p>Final Product Review and Finalisation:</p> <p>Students identify the best way to share their ideas using Book Creator to meet the needs of their targeted stakeholder group.</p>	<p>Present Final Products:</p> <p>Students share their work with the public audience and reflect on their learning and project experience.</p>
<u>Key Student Questions</u>	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions
<p>* What is human migration?</p> <p>* Where did the first voyagers to New Zealand travel from?</p> <p>* How did the early voyagers know where to go?</p>		<p>* How many stars are part of kāpehu whetū (the Māori star compass)?</p> <p>* How were Māori navigators able to remember and then use kāpehu whetū on their journey?</p>	<p>* How can bird migration be used to help with wayfinding?</p>	<p>* Which foods were Māori voyagers able to take with them?</p> <p>* How did they keep their food safe to eat?</p> <p>* What did they have to drink?</p>	<p>* How are waka hourua different / similar to other vessels people have used for long distance travel on the ocean?</p>	<p>* Which information is the most important to share with</p>	
Key Vocabulary	Key Vocabulary	Key Vocabulary	Key Vocabulary	Key Vocabulary	Key Vocabulary	Key Vocabulary	Key Vocabulary
<p>* migration</p> <p>* voyagers</p> <p>* Pacific</p> <p>* Māori</p>		<p>* kāpehu whetū</p> <p>* compass</p> <p>* navigator</p> <p>* navigation</p> <p>* wayfinding</p>	<p>* migration</p>	<p>* preservation</p>	 <p>https://www.sciencelearn.org.nz/resource/s/2917-puzzling-out-pacific-migrations</p>		

<u>Formative Assessment</u>	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment
* Use the Question Formulation Technique to begin brainstorming questions about Pacific migration to New Zealand.							

Reflection Methods			
<u>Reflection Methods</u> (how individual, team, and/or whole class will reflect during or at end of project)			

Learning Experiences:

Pre PBL learning (learn the process before using it to learn the content)				
EduProtocol - Frayer	EduProtocol - Thin Slides	EduProtocol - Mini Report	See, Think, Wonder	Active Listening
<p>Academic Goals:</p> <ul style="list-style-type: none"> Develop understanding of words or concepts. Create a simple graphic organiser that students can replicate on their own. Make learning and memorising attainable when appropriate. <p>Begin with a simple word such as 'apple' or 'dog'. Something that the students know well. Model how to fill in each part of the Frayer together. Students can then try their own Frayer using something that they know well.</p>  <p>The Frayer graphic organizer is a square divided into four quadrants by a central circle. The quadrants are labeled: Definition (top-left), Drawing (top-right), Examples (bottom-left), and Non-examples (bottom-right). The central circle is empty for students to draw or write.</p>	<p>Academic Goals:</p> <ul style="list-style-type: none"> Achieve quick academic concept development. Focus on creativity and visual communication. Support student collaboration and critical thinking. 	<p>Academic Goals:</p> <ul style="list-style-type: none"> Learn to combine facts from more than one source into one report. Distinguish between relevant and non-relevant facts. Build capacity for longer and more detailed reports over the course of the year. 	<p>Intention / Purpose:</p> <ul style="list-style-type: none"> Infer Identify Hypothesize Speak & Listen Collaborate Activate Prior Knowledge Critical Thinking Reflection <p>Begin with a simple picture such as a story starter card with an unusual image. Get the students to look at how to add their thoughts to the See, Think, Wonder template.</p>  <p>The See, Think, Wonder template consists of three vertical columns. The first column is titled 'See' and asks 'What do you see in the image?'. The second column is titled 'Think' and asks 'What are you thinking about as you look at the image?'. The third column is titled 'Wonder' and asks 'What wonderings (questions) do you have about this image?'. Each column has a small icon and a space for writing.</p>	<p>Intention / Purpose:</p> <ul style="list-style-type: none"> Focus on the information being shared. Think critically about what is being shared. Students think about the connections that can be made between their own knowledge and experiences and what is being shared. <p>Use the poster whenever children are sharing their ideas or work with others. Talk about the importance of being an 'active listener'.</p>  <p>The Active Listening poster features a central yellow cloud with the text 'Be an ACTIVE listener!'. Surrounding it are several colorful icons with instructions: 'Wait for the speaker to stop BEFORE SPEAKING', 'FOCUS ON what is being said', 'IGNORE distractions', 'REPEAT BACK what you heard', 'ASK questions', 'NOD your head', 'TELL THE SPEAKER if you understand or don't understand', 'FACE the speaker', 'Keep HANDS and FEET STILL', and 'Make EYE CONTACT'.</p>

Milestone 1 - Launch

Day 1	Day 2			
<p><i>* Talk about active listening skills with students prior to watching 'Nau mai ki te Land of Voyagers' video.</i></p> <p><i>* As an entry event, watch 'Nau mai ki te Land of Voyagers'.</i></p> <p><i>* Write down any vocabulary words that children saw or heard from the video. Allow students to watch the video through again and add to the vocabulary list. Explain any Māori vocabulary and the English translation.</i></p> <p><i>* Talk about the difference between questions and statements. Look at ways to begin a question (what, where, who, why, when, how) and get students to write down their own questions after watching the video.</i></p> <p><i>* These can be added to the 'See, Think, Wonder' chart.</i></p>	<p><i>* Address any misconceptions that came through in the students' questions or discussion following the first session.</i></p> <p><i>* Look at the driving question - discuss what a chronicler is and create a simple Frayer for this. Talk about migration and create a simple Frayer for this.</i></p>			

Reading resources you might like to use to help students answer our driving question:

	School Journals	Epic	Readworks	Library / Other
General	<ul style="list-style-type: none"> • <i>The Path Beneath Our Feet</i> (Level 3, May 2016) • <i>Kuri</i> (Level 2, October 2015) • <i>Tupaia</i> (Level 3, ???) 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • <i>Wayfinding: Never Lost</i> • <i>Wayfinding: Finding Land</i> • <i>Wayfinding: Planning the Route</i> • <i>Wayfinding: Holding the Course</i> • <i>Polynesian Mythology</i> • <i>Captain James Cook</i> • <i>Easter Island Statues</i> • <i>Polynesian Voyaging: Why Then, Why Now?</i> 	<ul style="list-style-type: none"> •
Star Navigation -> general navigation	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • <i>Mapping in Navigation</i> (Cynthia Light Brown, Patrick M. McGinty) • <i>Migration</i> (Suzette Toms) • <i>What is Migration?</i> (Bobbie Kalman, John Crossingham) • 	<ul style="list-style-type: none"> • <i>Navigation in the Age of Exploration</i> 	<ul style="list-style-type: none"> •
Bird Migration -> general navigation	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • <i>Birds on the Move</i> • <i>How to Welcome Migrating Birds</i> • <i>Migration: Difficult and Dangerous, But Worth the Trip</i> • <i>Lights Out, Please!</i> • <i>Climate Change and Migration</i> • <i>How do Birds Find Their Way?</i> • <i>Navigation in the Age of Exploration</i> 	<ul style="list-style-type: none"> •
Preparing for a Journey	<ul style="list-style-type: none"> • <i>What Shall I Pack for My Trip?</i> (Cecilia Minden) 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • <i>Polynesian Voyaging: Provisions for Voyaging</i> 	<ul style="list-style-type: none"> •
Waka Hourua	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • <i>Floating and Sinking</i> (Amy S. Hansen) • <i>Floating or Sinking</i> (Julie K. Lundgren) • <i>Floating Origami</i> (Joe Fullman) • <i>What Can Float?</i> (Pam Holden) • <i>Things That Float and Things That Don't</i> (David A. Adler) 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •

Websites and Resources you might find useful:

<p>General</p>	<ul style="list-style-type: none"> ● <u>Tuia Education</u> <ul style="list-style-type: none"> - <u>Tuia Mātauranga Activity Book (Junior)</u> - <u>Tuia Mātauranga Activity Book (Senior)</u> ● <u>Tour Builder</u> 	<ul style="list-style-type: none"> ● This website has some really good resources such as the activity books which could be used in the classroom to support your teaching. ● You could use Tour Builder to show the journey our Polynesian ancestors took to get to New Zealand.
<p>Kāpehu whetū</p>	<ul style="list-style-type: none"> ● <u>Planisphere Printable</u> <ul style="list-style-type: none"> - <u>Planisphere How to Guide</u> 	<ul style="list-style-type: none"> ● You could use the Planisphere to support student understanding about how the Polynesian navigators used the stars for wayfinding.
<p>Bird migration</p>	<ul style="list-style-type: none"> ● <u>Meet the Locals: Godwits / Kuaka</u> ● <u>Kuaka Collaborative Artwork</u> 	<ul style="list-style-type: none"> ● A YouTube clip by the Department of Conservation with information about the migration journey of godwits / kuaka. ● This could be used as inspiration for a collaborative class artwork celebrating the amazing journey of the kuaka. Music could also be created to go with it.
<p>Preparing for a journey</p>		
<p>Waka hourua</p>		

Milestone 2 - Build knowledge

Day 1	Day 2	Day 3	Day 4	Day 5
<p>* Watch the second video in the series 'Migration: The Untold Story'.</p> <p>* List any vocabulary the students come up with relating to the video. Explain any Māori vocabulary and the English translation.</p> <p>* Students can then watch this again at their own pace, taking a screenshot from the video that they feel is important or interesting.</p> <p>* Students add their image to a shared slide and present their thinking in a short statement to the class: "I thought that it was interesting..." "I chose this picture because..."</p> <p>Modifications: * Students who have difficulty sharing their ideas may just like to share their statement from the mat. * Students who have difficulty explaining their thoughts may need to be prompted with a question: "What did you like?" "What did you think was interesting or important?"</p>	<p>* Watch 'Star Compass'.</p> <p>* List any vocabulary the students come up with relating to the video. Explain any Māori vocabulary and the English translation.</p> <p>* Talk about why there was a need for a 'Star Compass' and compare this to the types of navigation that people used today.</p> <p>* Refer back to 'Migration: The Untold Story' and the comparison of the size of Mars and Te moana nui a Kiwa (the Pacific Ocean). Discuss the size of the Pacific and how necessary it was to have a reliable navigation system.</p> <p>Modifications: * Utilise teacher aides during reading or writing sessions to introduce some of the videos. Discuss ideas in smaller focused groups to develop ideas. Write down any ideas so that they are not forgotten.</p>	<p>* Watch the beginning of 'Birds and Navigation'. Pause the video after the statement: "Over 4,000km from here in West Polynesia, across the mighty Pacific to Aotearoa. A land they knew that was there. How? Birds." (Timestamp 0:55)</p> <p>* In groups, ask students to think about the information that birds might give them about there being land across the Pacific. Write down each idea on a Post It ready to share back with the class.</p> <p>* One group places their first Post It note on the board with a brief statement: "We think..." "Maybe..." "We wondered if..." Each group follows, either by placing their Post It in a new column. If they had the same idea as another group, they can put their Post It in the same column: "We also think..."</p> <p>* Continue watching the video and see if any of the students' ideas match up to the information presented.</p> <p>Modifications: * Some students could work with a teacher aide or teacher who can provide prompts as needed.</p>	<p>* Show students the picture of 'The Arrival of Māori in New Zealand'. With partners quickly discuss the painting.</p> <p>* Share ideas in a class discussion, adding to an 'It's OPTIC-al' chart.</p> <p>* Watch 'Mythbusting "The Arrival of Māori in New Zealand"'. * Have a look back at the OPTIC-al chart and talk about which things depicted in the painting were accurate or somewhat accurate, and which things were wrong.</p> <p>* Students then need to think about how they would show a better depiction of the arrival of Māori in New Zealand.</p> <p>Modifications: * Students could create this on a Chromebook with a range of provided images.</p>	<p>* Watch 'Tupaia - Master Navigator'.</p> <p>* Look at the maps created by Captain Cook and Tupaia. Compare these to modern day maps. Have a look at Google Earth and the technology that we can use today.</p> <p>* Use a SW cube to get students talking about the information shared in the video.</p> <p>Modifications: * Students could work with a teacher aide or teacher during a reading or writing session. After they have watched the video, they can be given some basic questions to fit the frame (Who was Captain Cook? Who was Tupaia? Where did they sail from? When did they sail to Aotearoa?). Discuss the answers together so that they are familiar with the knowledge.</p>

Milestone 3a - Build Knowledge: Kāpehu whetū (AMY)

Day 1	Day 2	Day 3	Day 4	Day 5

Milestone 3b - Build Knowledge: Bird migration (MEGAN)

Day 1	Day 2	Day 3	Day 4	Day 5


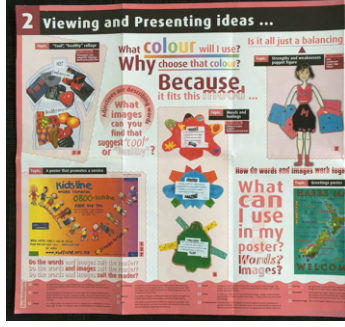
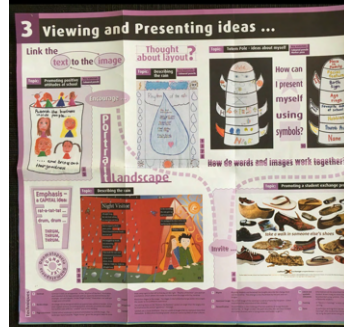

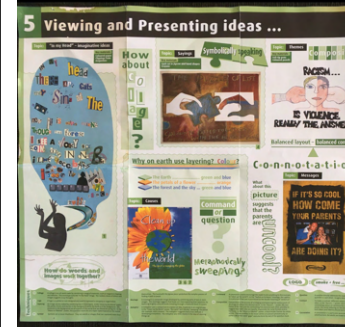
Milestone 3c - Build Knowledge: Preparing for a journey (JILL)

Day 1	Day 2	Day 3	Day 4	Day 5

Milestone 3d - Build Knowledge: Waka hourua (JOHN)

Day 1	Day 2	Day 3	Day 4	Day 5

Look at and discuss the Viewing and Presenting Posters to develop understanding about formatting for their Book Creator project.

				
<ul style="list-style-type: none"> • Focus on the connection between the images and the text. • Start a collection of piece of writing and images that might go into the final book. 	<ul style="list-style-type: none"> • Think carefully about the colours that we want to use that might fit with a journey across the Pacific. How else can we use colour to enhance the message we are trying to share? 	<ul style="list-style-type: none"> • Think about the layout of the images and text on the page. Are there ways that we can enhance the messages we are trying to share? Can we shape text a certain way? 	<ul style="list-style-type: none"> • Think carefully about the colours that will work best - try different font colours on different coloured backgrounds and group them into 'easy to read and effective' and 'difficult to read'. • Think about the colour of the pages that the information and text will sit on. 	<ul style="list-style-type: none"> • Discuss different types of text that can be used for our book. Talk about fonts (size, colour, and type) and how some fonts can actually make it hard for others to read our work.

Explore examples on 'Book Creator' (look at the content created by others to identify high and low quality)

Images	Audio Recordings	Timelines	Videos	Writing
<ul style="list-style-type: none"> • Look at the types of images used by others - photographs, sketches, collage, paintings. • Which images are selected for each part and why? 	<ul style="list-style-type: none"> • Listen to an audio recording and the different things that students have recorded. 	<ul style="list-style-type: none"> • Look at how they have set out the timeline to make it easy for others to read. 	<ul style="list-style-type: none"> • Have a look through the videos in the books. What have students created through video to share their learning? 	<ul style="list-style-type: none"> • Read through the texts created by others and think about the genres that will best suit our purpose.

Explore 'Book Creator' (learn how to use the tools before using them to share the content)

Images	Audio Recordings	Timelines	Videos	Writing
<ul style="list-style-type: none"> Look at how to add images onto the page. Talk about how to take screenshots / photos to make sure that the image is not distorted or missing parts. Once an image has been added, show students how to adjust the size so that it is not distorted (drag from the corner) 	<ul style="list-style-type: none"> Talk about the need to be clear when speaking. Think about pace, background noise (make sure you are in a quiet space, the Chromebook / iPad is in a place that doesn't need to be moved around). 	<ul style="list-style-type: none"> Look at how to use shape tools to create a timeline. Teach students how to align these so that the timeline is easy to read. 	<ul style="list-style-type: none"> Watch some KPSTV to look at what makes a good presenter. Watch some short animations to see how they can share their work. 	<ul style="list-style-type: none"> Discuss different types of text that can be used for our book. Talk about fonts (size, colour, and type) and how some fonts can actually make it hard for others to read our work.

Milestone 4 - Develop and Critique

Day 1	Day 2	Day 3	Day 4	Day 5
<ul style="list-style-type: none"> Make a plan for all of the items students deem important enough to include in their book. Make links to our driving question - is there anything else that needs to be included? 	<ul style="list-style-type: none"> Look at each item that needs to be included. Identify the best way to share the item - writing, images, animation, video, audio recording. Assign different tasks to different students / groups of students. 	<ul style="list-style-type: none"> Work on creating each item. Use a range of resources, and check for accuracy once completed. 	<ul style="list-style-type: none"> Work on formatting fonts, colours, image sizes etc. Read through the book and check to make sure that everything makes sense and is in a logical order. 	<ul style="list-style-type: none"> Share the book with a range of people - students, teachers, parents. Identify any parts of the book that need further editing / modifications.

Milestone 5 - Present

Expo

- Interactive Book (each class to create 1 book on a particular topic in the series 'Celebrating and Commemorating Māori Voyaging and Voyagers').

Assessment ideas

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Steam Toolbox

<ul style="list-style-type: none">-Animation-Doink Green Screen-Edison robots-Bee-bots-Makey Makey-Scratch Junior-Tinkercad-Scratch	<ul style="list-style-type: none">-Augmented reality-Gravit-VR-Taleblazer-3D printer-Cardboard -construction-Google slides-Videos-Photos	<ul style="list-style-type: none">-PicCollage-Stop Motion-Seesaw-QR codes-Robotics-Binary Digits-Graphic design-App making
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Resources Needed

<u>KĀPEHU WHETŪ</u>	<u>BIRD MIGRATION</u> I Know/ I Wonder T chart How to make a magnetic Compass Ocean Currents PE Compass Games How do birds know E3 Call Home-Janet Hunt Godwit's Journey-Sandra Morris Live Bird Tracker SJL3 The Journey	<u>PREPARING FOR A JOURNEY</u>	<u>WAKA HOURUA</u> <ul style="list-style-type: none">• https://eng.keitemohiokoe.tki.org.nz/Overview-of-Physics/Canoes-1/Different-waka-for-different-roles
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WHO WAS KUPE?- https://docs.google.com/document/d/1qSLIJ719U-quplfzifB_mx-oLgiuwg8tEziJr8DfRcs/edit

Project reflections

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