



Kaikorai PBL Plan : Focus -

Project Name: Voyages

Duration: 8 Weeks

Teachers: Courtney, Paula, Emma & Felicia

Junior/Middle/Senior

Driving Question

How can we as storytellers/ historians tell the amazing story of the Pacific migration?

Project Summary (including client)

Gold Standard PBL

Seven Essential Project Design Elements



Students will identify:

- **Objects that float and sink**
- **Key elements of a waka**
- **How Maori travelled to Aotearoa using stars, sea currents, birds and the wind.**

Students will create a prototype and final product of a waka that will float for a voyage.



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 	<p>Kind <i>Respectful when giving and taking on feedback.</i> <i>Considerate and inclusive of others by helping group members.</i></p> <p>Aspiring <i>Risk takers and problem solvers when making adjustments to their prototype.</i> <i>Being creative and thinking outside the square when planning their product.</i></p> <p>Independent <i>Team player and co-operative when working with others.</i> <i>Being able to self manage to get work completed in the required timeframe.</i></p> <p>Keen <i>Self managing, collaborative and self motivated.</i></p>
Curriculum area and achievement objectives	Learning Outcomes
<p>Technology Planning for Practice Outline a general plan to support the development of an outcome, identifying appropriate steps and resources.</p> <p>Technological Modelling Understand that functional models are used to represent reality and test design concepts and that prototypes are used to test technological outcomes</p>	<p>Students will:</p> <ul style="list-style-type: none"> ● Know what materials float and sink ● Create a prototype of a waka. ● Test prototypes and make necessary adjustments. ● Know the six key components of a waka. ● Use feedback from peers to alter their prototypes and problem solve issues. ● Create final product - waka



<p>Technological Products Understand that technological products are made from materials that have performance properties.</p> <p>Science Astronomical Systems Share ideas and observations about the Sun and the Moon and their physical effects on the heat and light available to Earth.</p>	
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Key Milestone 1	Key Milestone 2	Key Milestone 3	Key Milestone 4	Key Milestone 5	Key Milestone 6	Key Milestone 7	Key Milestone 8
<p>Entry Event: Visit from Amadeo.</p> <p>Floating and Sinking focus</p>	<p>Floating and sinking stations - experimentation</p> <p>Mini rotation between classes.</p>	<p>What is a voyage?</p> <p>Key word: voyage</p>	<p>Exploring different types of boats.</p> <p>Build boats and test at Kaikorai Common.</p>	<p>Expert: Boat builder or sailor.</p>	<p>Build first prototype and test at Wakari School Pool.</p>	<p>Refine boats and choose best to take to the harbour and follow with a drone.</p>	<p>Share waka at expo</p>
Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions
<p>What is sinking? What is floating?</p>	<p>Why does that float or sink?</p>	<p>Why did they go on a voyage? What did they take? How did they survive?</p>	<p>What kinds of boats are there? Do boats have the same jobs? What materials should we use?</p>	<p>What is the job of a captain? What are different boats made of?</p>	<p>What will my waka need to float? What suitable materials will I use?</p>	<p>What made my waka successful?</p>	<p>How will I talk about my final product? How will I share this with others?</p>



Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment
3 Minute Pause - I felt - I learnt - I was surprised about	Whole Class T Chart Floating/Sinking	K.W.L Chart Fill out what we know and what we want to find out today	Self Assessment of their first boat (Smiley face)	Wondering questions answered by expert	Get feedback from an expert on their first prototype	Shark Tank -Must show boat and explain why their boat deserves to go -Everyone votes	Sharing their waka with the community and be able to talk about it

Reflection Methods			
Reflection Methods (how individual, team, and/or whole class will reflect during or at end of project)	Two stars and a wish - Individual		Think, Peer and Share
	Learning Journal -		
	Gallery Walk		

Learning experiences



Week 1 - Floating and Sinking				
Day 1	Day 2	Day 3	Day 4	Day 5 - Friday Week 7 1.45-2.45
Entry Event: Visit from Amadeo.	Recap on visit from Amadeo. Read floating and sinking book.	Explore floating and sinking in own class.	Explore floating and sinking in own class.	Junior stations - experiment with different materials. Courtney - Predictions Paula - Tinfoil creation that floats Felicia - Boat Challenge

Week 2 -				
Day 1	Day 2	Day 3	Day 4	Day 5
Unpacking the Driving Question Key words - Voyage - Historian - Pacific - Waka	Where are we in the world? - Mapping	Where did our families/classmates come from in the world?	How do people move around the world? - Transport	Recap of the week: What did we find out this week? What are we wondering about now?

Week 3				
Day 1	Day 2	Day 3	Day 4	Day 5



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Week 4				
Day 1	Day 2	Day 3	Day 4	Day 5

<u>Assessment ideas</u>		

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
Resources		



Matauranga website - Ian Taylor, Animation Research:

<https://maatauranga.co.nz/index1.html>

Scotty Morrison:

<https://www.tvnz.co.nz/shows/origins/episodes/s1-e1>

Big Book - "Will They Float?" by Feana Tu'akoi

Reader: "Big Machines At Sea" by Geoff Thompson

Twinkl mapping activities

Project reflections