

Kaikorai PBL Plan : Focus -				
Project Name: Voyagers - the untold s	tory	Duration: T1 W7 - T2 W4		
Teachers: Beth, Rosie, Mark, Anya		Senior syndicate		
	Driving (	Question		
How can we as storytellers/chroniclers tell the amazing story of Pacific migration				
	Project Summary	(including client)		
<b>Gold Standard PBL</b> Seven Essential Project Design Elements	Each class adopts an aspect of the STEM basis of the pacific migration story. Waka design and why. Natural navigation elements (bird migration, swells, clouds indicating land, star compass). Role of each person, what and why (navigator, planner, coloniser), significant people in the Pacific migration story and the role of myths and legends in our understanding (Kupe, Tupaia).			
P         Challenging Problem or Question         Public Product	The true history of New Zealand is largely unknown and there is a call for accurate information about how New Zealand came to be. Many students only know of Cook and Tasman when considering the origins of colonised New Zealand. Our aim for this project is for our students to understand how and why pacific migration occurred, to examine the incredible skills of our Polynesian ancestors in navigation and technology and to have a well rounded understanding of key figures in the Pacific migration story. Students will create an animated educational resource to share their learning with our wider community.			

Community experts:

- Tony's sailor friend (potential)
- Armadeo (Otago museum)

Client:

- Parents and wider school community
- Lisa Matteo-Smith

Key Competencies	KAIK Values - give examples
<ul> <li>Thinking</li> <li>Using Language, Symbols &amp; Text</li> <li>Managing Self</li> <li>Relating to Others</li> <li>Participating &amp; Contributing</li> </ul>	<ul> <li>Kind - Treating new learning of different cultures with respect.</li> <li>Aspiring - Asking myself - is this the best I can do?</li> <li>Independent - managing myself in my learning, taking ownership of my role.</li> <li>Keen - Not being afraid to make mistakes / having a growth mindset while learning.</li> </ul>
Curriculum area and achievement objectives	Learning Outcomes
<ul> <li>Social sciences Understand how early Polynesian and British migrations to New Zealand have continuing significance for tangata whenua and communities. (L3)</li> <li>Understand how exploration and innovation create opportunities and challenges for people, places, and environments. (L4)</li> <li>Science Appreciate that science is a way of explaining the world and that science knowledge changes over time (L3-4)</li> <li>English Construct texts that show a growing awareness of purpose and audience through careful choice of content, language and text form (L3)</li> <li>ideas suggest awareness of a range of dimensions or viewpoints (L3)</li> <li>Technology Understand how society and environments impact on and are influenced by technology in historical and contemporary</li> </ul>	<ul> <li>Success skills <ul> <li>Critical thinking</li> <li>Critical literacy</li> </ul> </li> <li>Literacy skills <ul> <li>Expository writing</li> <li>Reading informational text</li> </ul> </li> </ul>

contexts and that technological knowledge is validated by successful function.

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Important vocabulary

- Storyteller -
- Chronicler a person who writes accounts of important or historical events.
- Migration (from *migrate*) to move from one country, place, or locality to another.
- Navigation the science of getting ships, aircraft, or spacecraft from place to place *especially* : the method of determining position, course, and distance traveled.
- Pacific -
- Bias inclination or prejudice for or against one person or group, especially in a way considered to be unfair.
- Perspective a particular attitude towards or way of regarding something; a point of view.
- Primary source are immediate, first-hand accounts of a topic, from people who had a direct connection with it. Primary sources can include:
  - Texts of laws and other original documents.
  - Newspaper reports, by reporters who witnessed an event or who quote people who did.
  - Speeches, diaries, letters and interviews what the people involved said or wrote.
  - Original research.
  - Datasets, survey data, such as census or economic statistics.
  - Photographs, video, or audio that capture an event.
- Secondary source are one step removed from primary sources, though they often quote or otherwise use primary sources. They can cover the same topic, but add a layer of interpretation and analysis. Secondary sources can include:
  - Most books about a topic.
  - Analysis or interpretation of data.
  - Scholarly or other articles about a topic, especially by people not directly involved.
  - Documentaries (though they often include photos or video portions that can be considered primary sources).
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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
Key Milestone 1	Key Milestone 2	Key Milestone 5	Key Milestone 4	Key Milestone 5	Key Milestone o	Key Milestone /	Key Milestone o

Contact Armadeo for an entry event. Understanding the driving question	Understand role of each person in migration journey BETH	Significant people in the pacific migration story Who came and how? Who was real and who was myth? ANYA	Understand deliberate waka design elements and how to apply these to a concept model MARK	Understand natural phenomenon used in pacific migration ROSIE	Develop understanding of storytelling through animation	Craft explorable models using augmented reality software	Presentation of final product - animation/video telling the story
<u>Key Student</u> Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions	Key Student Questions
	How many people are needed for exploration? Who stays behind, who gets to go and why? What does a navigator do? How are they chosen? What does a coloniser do?	What makes a story true? What is a myth? Can the two be intertwined? How can we use made up stories to inform our truthful understanding of how NZ came to be? Who was Tupaia? Who was Kupe?	Why were waka built the way they were? What is the significance of the shape of the sails? The shape of the hull? If it is a catamaran - where do they sleep? How to build a waka hourua TKI - Making a waka kōrari	What is wayfinding? How can the sun be used to determine direction? How can direction be known at night time? What happens if it's cloudy and you can't see the stars? How can bird migration show us where to go? (birds travel faster than the boats?)	What is story telling? What makes an effective story? How can we make sure we include all necessary elements?		

				What do swells tell navigators?			
<u>Formative</u> <u>Assessment</u>	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment	Formative Assessment
Provide each student with a digital project journal and have them complete the first task 'What I think now' and link in their flipgrid video.	Divide the room into 3 places using cones or hoola hoops as markers. Give statements applicable to each role e.g. "I learn how to read the stars" and then the students physically move to the role they think it applies to. In the project journal have an image of a navigator, a coloniser, and a planner and have students put captions around them of everything they have learned about each role.	A short answer question in their project journal. "What is a myth?" Fact and Fiction Venn diagram for story of Kupe and the Wheke. Draw a picture of Kupe and around it put all the information you have learned about him either in text or picture form with labels. (Do the same for Tupaia) "If this is the question - what is the answer?" Students write statements about Kupe and Tupaia and the rest of the class answers these.			Storyboard on Boords.com		

Reflection Methods						
ReflectionMethods(how individual, team,and/or whole class willreflect during or at end						

of project)		

## Learning experiences

Milestone 1 and 2						
Day 1	Day 2	Day 3	Day 4	Day 5		
Understanding the driving question Break down the driving question as a class. Search definitions of keywords. Begin the classroom 'working wall' of vocab and driving question. Encouraging student agency through allowing their writing, thoughts on display and showing their learning and understanding in progress - does not have to be a beautiful display with your writing . Play <u>Moana</u> we know the way - what can we hear?	Make connections to now and then - brainstorm all the jobs and roles involved in exploring new land via boat in 2021. Consider the technology used in 2021 to aid the process. Assign attributes of characters to the tasks on the boat eg the captain of the ship would have to display leadership qualities. What barriers would there be in 2021?	Interview with myself - https://flipgrid.com/kaikvoyage <u>rs</u> Tell me everything you know and think about the origins of New Zealand. "How did New Zealand come to be?" There is no right or wrong answer. <u>Key questions:</u> who came? What was here before people? When did people come? How did they come? Where did they come from?	Bus stop activity using questions created by students. What we think   What we know now mind map with student question in the middle. Students rotate in groups responding to different questions about navigation, migration, resources as created by them. Put on the display wall and return to later when the topic has been explored and new questions can be made.	Although we cannot check or confirm we can hypothesise what it was like and the attributes were needed in order to be a successful voyager. Watch <u>The untold story</u> and brainstorm skills needed and attributes to be successful.		

Ask your class about a time line to gain an understanding of where their knowledge lies?		
Write 'what I want to know' onto strips of paper for display -explore their questions and categorise		

	Milestone 3						
Day 1	Day 2	Day 3	Day 4	Day 5			
How did New Zealand come to be? As a class look at a map of New Zealand - what can students notice about the names of different places? Think te-ika-a-maui, Cook strait, Tasman sea. Who do these names belong to and what place do they hold in our history? KWL chart - students complete what they know so far about the origins of New Zealand. Come together to discuss what students know already. Challenge ideas of 'when' NZ started - Tasman was the first European to come to NZ, how did the Māori come to live in NZ? Were they here all along? Exit - complete 2 questions on W of KWL chart. Formative - teachers use this W	<ul> <li>What role do myths play in history and how can we tell what's true?</li> <li>WALT: Explain what a myth is in our own words and identify and discuss mythical and potentially factual elements of a story.</li> <li>Discuss: What is a myth? What are some myths that you know? (Māori slowing the sun for example) Myths are stories about how the world was created and why certain things happen.</li> <li>Read Kupe and the giant Wheke as modelled reading on the class screen. Read through once to enjoy the story then read through again to search for facts and fiction within it. Which aspects could be real?</li> </ul>	<ul> <li>Who was Kupe?</li> <li>WALT: Identify places of significance in New Zealand that have origins in myth.</li> <li>Print a copy of NZ map (A5 size) for each student.</li> <li>Reciprocal reading: Kupe and the giant Wheke</li> <li>How many places from that story still exist today and are still called those original names? Have students identify and annotate those places on their maps.</li> <li>Whole class: Read</li> <li>Kupe's travels around Aotearoa / Māori Myths, Legends and Contemporary Stories / Te Reo Māori / Support materials / Home - Mātauranga Māori</li> </ul>	Kupe and modern voyaging WALT: • explain who Kupe was and where he was touted to have travelled • briefly describe the voyage of the Waka Tapu • explain how and why legends such as Kupe may be based on actual events. Kupe and modern voyaging -Science learning hub Follow this lesson sequence.	Who was Tupaia?			

to inform choices of information to seek out.	Formative assessment: Students categorise aspects of the story as fact or fiction.	as you read have students identify places on their map (and on class promethean where possible) that are mentioned in the story.	
		Exit ticket colored post-its: 1 thing you have learned and 1 thing you are wondering now.	

Milestone 4						
Day 1	Day 2	Day 3	Day 4	Day 5		
What is a Waka? What is the purpose of a waka? Students can find / use images of a waka. How would this/these waka travel across the pacific ocean for voyages to travel to new destinations to settle? Video of the <u>rough pacific</u> <u>ocean</u> - What can you design that would withstand sailing on this? Create some personal/group	Watch the clip https://youtu.be/FTJfCRECjok Focusing on the different images of the boats. Create a Venn diagram or a different graphic organisers to compare and contrast the different attributes or elements of the boats/boat designs. Using this video https://youtu.be/jqV3ruqWfhg from 1.10 - 1.36 using the visuals of the boats and link to your designs created in your last 2 activities are found in them.	Explore the website https://maatauranga.co.nz/inde x5.html#loaded Using the then and now - looking at the America's Cup - sails vs wings video and look at the developments and connections from the original waka hourua to the boats coming through to now. The Vikings are famous for their incredible voyages across the Atlantic in their longships. But how far did they travel compared to the ancient Polynesian voyagers?				

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Day 1	Day 2	Day 3/4	Day 5	Day 6
Star Compass Brainstorm ideas on how they found their way. Watch 'How did polynesian wayfinders navigate the Pacific Ocean?' Add new ideas to the list. Introduce the star compass. What do we know about constellations? Connect iPad to the smart board and bring up 'Sky View Lite App'. As a class explore what constellations are above you. Conclude with an exit card - one thing you have learnt and one question that has come out of this lesson.	Star Compass Hand out <u>star compass</u> handout. Get students to write instructions using star compass directions to a certain point on a map which they have created using the 'make a map' sheet. Get a partner to follow the instructions to arrive at a destination. Using 1-5 finger evaluation - did your instructions work? Did your partner reach their destination? Do you think you would be able to follow a star compass out at sea?	Bird Migration Read 'On the move' - Connected, 2016, Level 3 Journal. Discuss what migration is. Split class into partners. Give each partner a different bird which migrates. On google slides partners create a slide including Why do they migrate, how far do they travel, where do they stop for food, how long is their journey, how did polynesian use this information to wayfind? Conclude - In small groups partners present their findings.	<b>Currents</b> What is a current? Complete the Nanogirl ' <u>Easy</u> <u>Ocean Currents science</u> <u>experiment - What are Ocean</u> <u>Currents and how do they</u> <u>work</u> ?' as a class. Use their waka they made from milestone 4 to test this theory that moving on a current is faster and more reliable. Discuss how the polynesian used this system to head back to the island when they were running out of supplies/helped them keep track of where they were going.	Mapping Brainstorm ways on how they kept track of what they had found and where without having cameras or an actual map. Introduce the idea of a stick chart. "Polynesian sailors in the Marshall Islands navigated using a map built from small seashells, wooden sticks, and various parts of a coconut. The curved lines showed the direction and flow of the ocean swell. The shells represented islands." Using pipe cleaners and beads, make your own stick chart. Brainstorm ideas about things you could make a map of: your house, your school, the way water flows in streams into the sea.

		Milestone 6		
Day 1	Day 2	Day 3	Day 4	Day 5

Milestone 7
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Day 1	Day 2	Day 3	Day 4	Day 5

		Milestone 8		
Day 1Day 2Day 3Day 4Day 5				

Assessment ideas		
Single point rubric		

Steam Toolbox				
-Animation -Doink Green Screen -Edison robots -Bee-bots -Makey Makey -Scratch Junior -Tinkercad -Scratch	-Augmented reality -Gravit -VR -Taleblazer -3D printer -Cardboard -construction -Google slides -Videos -Photos	-PicCollage -Stop Motion -Seesaw -QR codes -Robotics -Binary Digits -Graphic design -App making		
Resources Needed				
Mātauranga https://mch.govt.nz/tuia250				

https://learn.aucklandmuseum.com/programme/archaeology-of-the-pacific
Project reflections