TE KURA MAREKO CASEBROOK INTERMEDIATE
The School of Opportunity

Adapted from Kaikorai Primary School - Mātauranga Unit

Casebrook Intermediate INQUIRY Learning Plan

PROJECT PLANNER

1. Project Overview

Project Title	Mātauranga - the untold story.	**Public Product(s) (Individual and Team)**	Video evidence of waka floating. Wakas are on display as their artefact. Each class will be responsible for answering one of the key questions in their video of learning which will be running during the expo. They are to share their key knowledge - and video of Sphero in action etc.
Driving Question	How can we as storytellers tell the amazing untold story of Pacific migration?		
Grade Level/ Subject	Year 7 and 8		
Time Frame	9 weeks		
Project Summary	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 a prototype and final product of a waka that will float for a voyage and class an animated educational resource to share their learning with our wider community.		

2. Learning Goals

Standards	LEVEL 3 Social Studies • Understand how early Polynesian and British migrations to New Zealand have continuing significance for tangata whenua and	**Literacy Skills**	• Skimming and scanning for information • Activating prior knowledge • Synthesizing information • Formulating questions • Relating to self and wider world • Persuasive writing • Engage in collaborative conversations • Presentation of ideas with evidence

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communities.
- Understand how the movement of people affects cultural diversity and interaction in New Zealand.

LEVEL 4
Social STudies
- Understand how people pass on and sustain culture and heritage for different reasons and that this has consequences for people.
- Understand how exploration and innovation create opportunities and challenges for people, places, and environments.

Digital Curriculum:
Students can incorporate the digital curriculum through the use of spheros and Minecraft for education. Links to designing and developing digital outcome 1.

Links to computational thinking progress outcome 1 & 2 through creating the coding, manipulation etc.

Cultural inclusiveness:
Te Reo and Tīkanga Māori Inclusiveness:
- Manaakitanga Values – integrity, trust, sincerity, equity
- Tangata Whenuatanga – Place-based, socio-cultural awareness
- Whanaungatanga Relationships (students, school-wide, community) with high expectations
- Wānanga - Communication, problem-solving, innovation
- Ako - Practice in the classroom and beyond

Ka Hikitia:
Te Whānau
Te Tangata
Te Kanorautanga
Te Tuakiritanga - We will support the identity, language and culture of Māori learners and their whānau to strengthen belonging, engagement and achievement as Māori so that Māori learners can actively participate in te ao Māori, Aotearoa and the wider world.
Te Rangatiratanga

Key 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 travelled.
- Pacific
- Bias - inclination or prejudice for or against one person or group, especially in a way considered to be unfair.

Success Skills

Critical thinking, collaboration, self-management.

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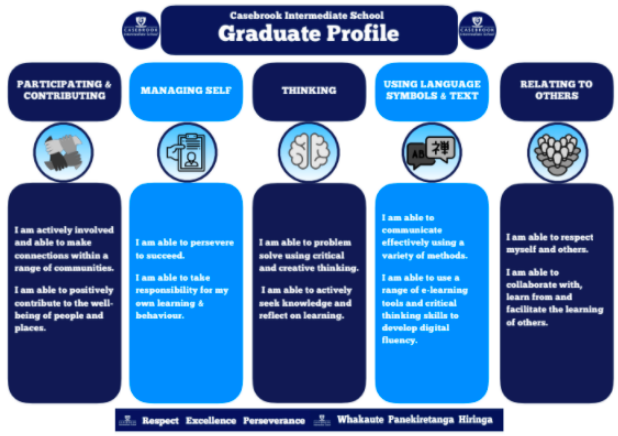
- Perspective - a particular attitude towards or way of regarding something; a point of view.



Rubric(s)

Casebrook Graduate Profile (based on the NZC key competencies):

- **Participating and Contributing:** ✓ Actively involved, making connections ✓ Positive contributions & well-being
- **Managing Self:** ☐ Persevere to succeed ✓ Take responsibility for learning & behaviour
- **Thinking:** ✓ Problem solve using critical & creative thinking ✓ Seek knowledge & reflect on learning
- **Using Language Symbols and Text:** ✓ Communicate effectively ✓ Use e-learning tools to develop digital thinking
- **Relating to Others:** ✓ Respect self & others ☐ Collaborate with & learn from others

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3. Project Milestones

Milestone #1	Milestone #2	Milestone #3	Milestone #4	Milestone #5	Milestone #6 Public Product
Understanding the driving question. **Guest speakers** - contacting the museum.	Watch video - Untold Story https://www.youtube.com/watch?v=m8bDCaPhOek&ab_channel=TED-Ed In the beginning... Today we think nothing of travelling to a new country, just jump on a plane and you can go anywhere in the world in only a few hours. But imagine if you lived thousands of years ago, and the only way to travel was a double-hulled waka. Students tell everything they know and think about the origins of New Zealand. "How did New Zealand come to be?"	Significant people in the pacific migration story Who came and how? Who was real and who was myth? *Understand the purpose and parts of waka and what a Wayfinder is* Understand place names in NZ that have dual names or Māori only names. Unpack these ideas and why they have changed or stayed the same. Complete KWL sheet around the origin story of NZ and what they know about explorers to NZ. Complete storyboard of Kupe & the Wheke. Retell the story of Tupaia and understanding fact from fiction. Create a scratch map of Tupaia's journey.	Understand deliberate waka design elements and how to apply these to a concept model. Compare and contrast different types of sea vessel. Label the main parts of a waka and vaka. Identify the similarities and differences. Design something that can withstand high winds that might happen on the open sea Compare traditional boats to modern boats and describe how they would change the navigation of years ago. Using knowledge of research to decide what elements they would need for their boat to be effective to sail from one island to another.	Understand natural phenomenon used in pacific migration. Students are to choose a task card from the series of Minecraft Education Edition built challenges that have been designed to complement the Mātauranga online learning platform. This is to consolidate their earlier learning and links to the digital technologies curriculum. Students provide each other with feedback about their products - 2 things you see, 2 things you think, 2 things you wonder.	Build the first prototype and test (can we test in the river at the back of the school?) - Otherwise test in tubs of water. Refine boats and share waka at the expo.
Key Student Question What I know? What I wonder?	**Key Student Question** Who came? What was here before people? When did people come? How did they come? Where did they come from?	**Key Student Question** How did NZ come to be?	**Key Student Question** What is waka?	**Key Student Question** 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?	**Key Student Question** What will my waka need to float? What suitable materials will I use? What made my waka successful? How will I talk about my final

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				What do swells tell navigators?	product? How will I share this with others?
Formative Assessment(s)	**Formative Assessment(s)**	**Formative Assessment(s)**	**Formative Assessment(s)**	**Formative Assessment(s)**	**Summative Assessment(s)**
Use a Jamboard where students will answer the key student questions.	Use a Jamboard where students will answer the key student questions.			Get feedback from an expert on their first prototype. - Mr Cook? - Invite parent engineer's into class?	Reflection on their Seesaw

4. Project Calendar

Driving Question: How can we as storytellers tell the amazing untold story of Pacific migration?				
Week: Sessions.	**Project Milestone: Milestone #1 & 2**			
Key Student Question(s): • What do I know? • What I wonder?	**Key Student Question(s):** • Who came? • What was here before people? • When did people come? • How did they come? • Where did they come from?			
Session 1: Unpacking the question.	**Session 2: Videos/frontloading**			

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See Section 5: Lesson Planner **LEARNING TARGET/OUTCOME:** • SLO: I can understand the driving question. • SLO: I can formulate questions around what I know and what to know. **LESSON**: **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. Use post it notes to include student voice. Play Moana we know the way - what can we hear? (They sing about how they navigate and how they are storytellers). **FORMATIVE ASSESSMENT:** Use a Jamboard where students will answer the key student questions. What do I know? What I wonder?	See Section 5: Lesson Planner **LEARNING TARGET/OUTCOME:** • SLO: I can formulate questions around what I know and what to know. **LESSON**: 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. **Key questions:** who came? What was here before people? When did people come? How did they come? Where did they come from? Although we cannot check or confirm we can hypothesize what it was like and the attributes were needed in order to be a successful voyager. **Watch** The untold story and brainstorm skills needed and attributes to be successful. **FORMATIVE ASSESSMENT:** Use a Jamboard where students will answer the key student questions.			
Notes:				

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Driving Question: How can we as storytellers tell the amazing untold story of Pacific migration?

Week: Sessions	**Project Milestone: Milestone #3 & 4**

Key Student Question(s):

- Who 'found' NZ first?
- Who was Abel Tasman?
- Who was Kupe?
- Who was Tupaia?
- How do we know what a myth or legend is?
- What are the key parts of a waka/vaka?
- What are the differences/similarities between waka, vaka & boats?
- What are key features of a boat to make it move through the water
- How would a waka travel across the ocean?

Session 1:	**Session 2:**	**Session 3:**	**Session 4/5/6**	**Session 7 & 8:**
LEARNING TARGET/OUTCOME SLO *Understand who 'found' NZ first and the connection between Abel Tasman had to the Māori people and also identify the history of place names to New Zealand & Māori* **LESSON**: As a class look at a map of New Zealand - what can the students notice about the different place names **(link this to your Ōtautahi place name inquiry)** List all the places in Aotearoa that have a dual name e.g `Waiharakeke - Blenheim' and list the ones that only have a Māori name e.g Rotorua Unpack who these place names belong to (iwi, hapu etc) What place do they hold in the history of Aotearoa?	**LEARNING TARGET/OUTCOME** *Explain what a myth is in our own words and identify and discuss mythical and potentially factual elements of a story.* **LESSON**: Discuss what a myth and legend is. What do the students already know about them. Can they list any well known myths or legends. Watch "Kupe and the Giant Wheke' students to storyboard the main events using this resource. Print and audio copies here Introduce fact or fiction to the students. Read the story again - students to write down what they think is fact or fiction from the legend.	**LEARNING TARGET/OUTCOME** *Understand who Kupe and Tupaia were and the connections he has to Aotearoa.* *Identify places of significance in NZ that have origins in myth* **LESSON**: **Kupe - Introduction** Students will have a copy of NZ map printed to A5. Copy of story here each too. From the story - identify how many of these places still exist and are still called these original names. On their maps students to find these places and map them - include their English name if they have been renamed **Part 2 Kupe - this will take a couple of sessions** Follow the teaching sequence of "Kupe & Modern Voyaging" you	**LEARNING TARGET/OUTCOME** *Understand natural phenomena used in pacific migration* *Understand the purpose and parts of waka and what a Wayfinder is* **LESSON** Day 1 Students to find images of waka from around the world. Focus specifically on Māori and Pacific Islands - what do they have in common? How do they differ? Pose these questions 1. How would these waka travel across oceans? 2. What would the waka need to travel long distances to find new places? Think/Pair/Share	**LEARNING TARGET/OUTCOME** *Understand the purpose and parts of waka and what a Wayfinder is* *Compare & Contrast different types of boats* **LESSON**: Day 3 Watch Episode 1 of Origins - this episode unpacks the origins of Māori people and where they are first thought to have landed in Aotearoa. Complete this sheet while watching it. **LESSON:** Day 4 Compare and contrast a variety of sea vessels - vikings ships, America's Cup boats, waka and vaka, dragon boats etc Students to identify features that enable a boat to float

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➔ KWL Chart - complete what they know so far about the origins of NZ Come together to discuss what students already know about the origins of NZ. Challenge their ideas of 'when' NZ started. ➔ Unpacking Abel Tasman ➔ Watch this clip 'Aotearoa History - Abel Tasman' - watch this for yourself first to check it is okay for your learners ➔ While students are watching they can take notes around the exploration by Abel Tasman and connections to the Māori history To finish the session get the students to complete two "What Do I want to Learn' on their KWL sheet. **SCAFFOLDS** Teacher to point out examples for those students that are struggling to identify adaptations. **FORMATIVE ASSESSMENT** Complete two "What Do I want to Learn' on their KWL sheet. **REFLECTION** As above	Which aspects have they identified as mythical? What have they identified as potentially true? **SCAFFOLDS:** Students are given a fact sheet at their reading level that they can highlight, or work with TA/teacher. **FORMATIVE ASSESSMENT** Retelling of the story through storyboarding and identifying fact or fiction. Need to explain why they have put it there. **REFLECTION** Upload their storyboard to SeeSaw	won't need to re-read the story; but if you are doing this over two sessions it is a good idea to recap. **Tupaia** Share this website with the students. They will fill in the sheet here to unpack their knowledge of Tupaia Their follow up activity to this learning experience is to code Tupaia's journey to Aotearoa - this is using Scratch **SCAFFOLDS** **Scratch Information** **FORMATIVE ASSESSMENT** Post their code to SeeSaw for commenting with reflection below **REFLECTION** Written reflection: The hardest part of Tepaia's journey would of been.... Tepaia would of felt.....	Watch Rough Seas On the Coral Princess At the end of this clip break the class into groups and get them to design something that they think could withstand these winds. Remind them of being specific with their diagrams - they can research materials that could be used. **LESSON** Day 2 Watch this clip students to complete this worksheet around parts of a Waka Hourua Waka Taua - war waka - another great clip to unpack another type of waka The Vaka - Pacific Island version of the 'waka' students to complete this sheet around the vaka. Students to label a diagram of both waka and vaka - researching for themselves. Good website here and here Templates are here. **SCAFFOLDS** **FORMATIVE ASSESSMENT**	effectively and move through the water. Sketch and begin the design process of their waka for artefact creating. **FORMATIVE ASSESSMENT** **REFLECTION**

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			Individual drawing and creating of waka Compare and Contrast the two boats **REFLECTION** Written reflection on SeeSaw 1. A challenge people would of faced using waka in the old days was.... 2. The feelings and emotions they would of felt were....	

Notes:

Driving Question: How can we as storytellers tell the amazing untold story of Pacific migration?

Week: Sessions	**Project Milestone: Milestone #5 & 6**

Key Student Question(s):	**Key Student Question(s):**
• 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? • What do swells tell navigators?	• What will my waka need to float? • What suitable materials will I use? • What made my waka successful? • How will I talk about my final product? • How will I share this with others?

Session 9 & 10.	**Session 11.**	**Session 12/13.**	**Session 14.**	**Session 14 - 18**

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LEARNING TARGET/OUTCOME • SLO: Students will consolidate their knowledge gained and understand natural phenomena used in pacific migration. **LESSON**: Students are to choose one or more task cards (Part 1, 2 or 4) from the series of Minecraft Education Edition built challenges that have been designed to complement the Mātauranga online learning platform. This is to consolidate their earlier learning and links to the digital technologies curriculum. Minecraft Resource Cards **FORMATIVE ASSESSMENT** Students are to summarise to the class what they have learnt while completing the task cards on Minecraft for Education.	**LEARNING TARGET/OUTCOME** SLO: Students will be introduced to star navigation. **LESSON**: **Star Compass** Brainstorm ideas on how they found their way. (Can use post-it notes). Watch 'How did polynesian wayfinders navigate the Pacific Ocean?' ➔ Add new ideas to the list started above. ➔ Introduce the star compass. Digital Star Compass Te Ara ➔ What do we know about constellations? ➔ Cast iPad to the Apple TV and bring up 'Sky View Lite App'. As a class explore what constellations are above you. **FORMATIVE ASSESSMENT** Conclude with an exit card - one thing you have learnt and one question that has come out of this lesson.	**LEARNING TARGET/OUTCOME** SLO: Students understand how Māori navigated the oceans by using elements of the natural world. **LESSON**: Students will use *Part 3 – How did they find their way?* Of the Minecraft Education Edition built challenges. Minecraft Resource Cards ➔ **Watch**: Navigation, Ocean Currents and Star Compass. ➔ Understand: Māori history is the foundational and continuous history of Aotearoa. Māori navigated the oceans by using elements of the natural world. ➔ **Know**: Māori voyaged across the Pacific using not only the Sun, Moon and Stars but also ocean currents and bird migration. To do this scientifically, a Star Compass was used. ➔ **Do**: Use the attached Ocean Biome World and work in teams of 4 to design and build your own star compass. **REFLECTION** Think/ pair/ share. Screenshot and post to Seesaw.	**LEARNING TARGET/OUTCOME** SLO: Students will identify what is a current. **LESSON**: What is a current? ➔ Watch: Ocean Currents ➔ Complete the Nanogirl 'Easy Ocean Currents science experiment - What are Ocean Currents and how do they work?' as a class. Worksheet - This worksheet is to help support your teaching after your students have watched the 'Ocean Currents' video from Nanogirl Labs, hosted by marine biologist Dr Kate Sparks. 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. **SCAFFOLDS** Conference with the teacher to help with writing. Students could reflect verbally and record. **FORMATIVE ASSESSMENT & REFLECTION** Overall project reflection, to be posted on Seesaw.	**LEARNING TARGET/OUTCOME** SLO: 1. Know what materials float and sink 2. Create a prototype of a waka. 3. Test prototypes and make necessary adjustments. 4. Know the six key components of a waka. 5. Use feedback from peers to alter their prototypes and problem solve issues. 6. Create a final product - waka **LESSON**: **Watch**: Sink or Float? **Watch** The science behind why boats float. Students will plan, construct and test a prototype and test. Students to gather feedback from their peers - Peer Feedback Form Use feedback to refine boats and share waka at the expo. Classes will create an animated educational resource to share their learning with our wider community. ➔ Anna and Trina will explain this concept during the delivery of the unit. **FORMATIVE ASSESSMENT & REFLECTION** Overall project reflection, to be

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				posted on Seesaw.

Notes:

5. Lesson Planner (Supporting Resource)

How to use the document: This planner offers guidance on how you might plan your daily lessons in the project calendar. Pick and choose what feels necessary to achieve the learning outcome and advance product development for all students.

I. **CHECKING PRIOR KNOWLEDGE** Identify how you will inventory student knowledge ahead of the task, lesson, or activity. (e.g., previous day's exit tickets, warm-up activity, need to know list review, quiz, class discussion, etc.)

II. **LEARNING OUTCOME** These can be related to success skills or standards. If your district uses a graduate profile or career pathway outcomes, include relevant outcomes here as well.

III. **KEY VOCABULARY** Note which terms or academic vocabulary will be essential to this lesson. If you serve English language learners, consider what additional vocabulary might be necessary for them to access the content/skills during the instructional activities.

IV. **FORMATIVE ASSESSMENT** For each lesson, consider which assessment type best measures the learning outcome. For example, a quiz may be the best way to check for understanding of key terms while an annotated sketch might be best for determining student understanding of how the key terms fit together. In some cases, your assessment may be informal, such as an exit ticket, or more formal, as in a rough draft. Finally, when planning your formative assessment, diversify who is doing the assessment. Include self, peer, and teacher assessment opportunities, as appropriate for the age group. When possible, have external partners or end users provide feedback to improve or guide the work.

V. **MAJOR INSTRUCTIONAL ACTIVITIES** This can include lessons, tasks, activities, or learning experiences. Choose the instructional method that will best help students achieve the learning outcome. For example, a direct instruction lesson may be appropriate for introducing the key players in World War II while an artifact inquiry activity during which students examine primary source documents would be better suited for them to understand the impact of those key players on the pivotal events during the war. This would also be the space to include teaching and learning related to classroom culture, student collaboration, and/or project management tools or skills, as appropriate for students or project milestone needs.

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Included links show examples of such activities.

VI. **SCAFFOLDS** Scaffolds are intended to be temporary supports that are removed when students no longer need them. These scaffolds can be used to support either content or the project process (e.g., need to know questions). Leverage "checking prior knowledge" to ensure you are offering the right scaffolds to the students who need them. Be sure to consider a wide range of needs, such as literacy skills, language acquisition levels, auditory/visual processing, building schema, learning style preferences, academic performance levels, etc.

VII. **REFLECTION** How will students reflect on their thinking, process, or learning?

VIII. **STUDENT NEED TO KNOW QUESTIONS ADDRESSED** Which student questions will be answered, or are you aiming to answer, during this instructional activity?

IX. **TOOLS/RESOURCES** Student-facing tools, human resources such as experts or community members, teacher tools, equipment, etc.

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