

INTRODUCTION

"THE WORLD IS A VAST FAMILY AND HUMANS ARE CHILDREN OF THE EARTH AND SKY AND COUSINS TO ALL LIVING THINGS. SUCH UNITY MEANS THAT NATURE IS THE ULTIMATE TEACHER OF LIFE."
TE ARA

GETTING OUTSIDE TO EXPLORE OUR TAIAO - HOWEVER BIG OR SMALL THAT TAIAO MIGHT BE - IS A JOY.

TAMARIKI HAVE CURIOUS MINDS AND IF WE CAN ENCOURAGE THEM TO KEEP ASKING QUESTIONS AND KEEP STRIVING TO FIND ANSWERS TO THOSE QUESTIONS, WE CAN SUPPORT MEANINGFUL LEARNING FOR LIFE.

IN THIS RESOURCE WE WILL BE UTILIZING ATUA MATUA. THE ATUA MATUA APPROACH TO LEARNING INVOLVES EXPERIENCING OUR ENVIRONMENT AND LEARNING TO UNDERSTAND THE KNOWLEDGE IT HOLDS - PARTICULARLY KNOWLEDGE CONNECTED TO ATUA AND THE TRIBAL INTERPRETATIONS OF THAT KNOWLEDGE.

SO, THE FIRST STEP IS TO GET OUTSIDE. EXPLORE YOUR TAIAO WITH ALL OF YOUR SENSES. SLOW DOWN AND TAKE NOTICE.

- WHAT DO YOU SEE?
- WHAT DO YOU HEAR?
- WHAT DO YOU FEEL ON YOUR FACE OR WITH YOUR HANDS OR FEET?
- WHAT DOES THE AIR SMELL LIKE - OR THAT PARTICULAR PLANT?
- CAN YOU TASTE ANYTHING?
- WHAT CREATURES CAN YOU FIND?
- CAN YOU SPOT A GROWING OR LIVING THING THAT IS NATIVE TO AOTEAROA?

THE QUESTIONS ON THE FOLLOWING PAGES ARE CUES - YOU CAN USE THEM TO EXPLORE THE THINGS THAT YOUR TAMARIKI ARE CURIOUS ABOUT. THEY AREN'T MEANT TO BE PROGRESSED THROUGH OR TICKED OFF, BUT RATHER SEEN AS POSSIBLE STARTING POINTS FOR NEW LEARNING. YOU ARE ENCOURAGED TO HAVE A KORĒRO WITH KAUMĀTUA AND OTHERS WHO MAY BE FAMILIAR WITH PŪRĀKAU AND WHAKAPAPA OF YOUR REGION.

MOST OF ALL, HAVE FUN! BEING ACTIVE IN YOUR TAIAO - QUESTIONING, LEARNING AND PLAYING IS ENRICHING FOR EVERYONE.

TĒNEI TE MANAWA, TĒNEI TE ORA
KO TŌ MANAWA, KO TŌKU MANAWA
KO TE MANAWANUI O RANGI E TŪ NEI
O PAPA E TAKOTO NEI
HAU MAI HEI MANAWAKURA, HE ORA!

TIS BREATH, TIS LIFE
YOUR BREATH AND MINE
THE BREATH INDEED OF
RANGI AND PAPA
LET IT FLOW, LET IT INVIGORATE

DR. WAYNE NGATA





ATUA MATUA

BODIES OF WATER
COMMONLY KNOWN TO
MĀORI ARE:

- AWA (RIVER)
- ROTO (LAKES)
- MOANA (OCEANS).

THESE PLACES HOLD A
SPECIAL SIGNIFICANCE
TO US ALL.

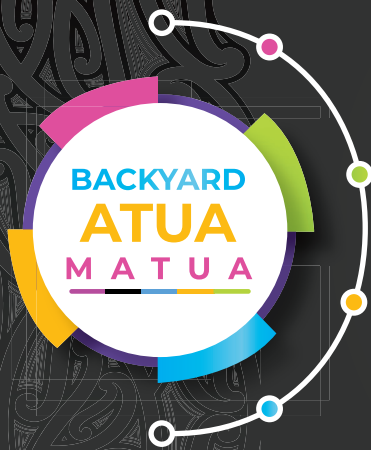


WHAT RIVER, LAKE OR PART OF THE OCEAN
HOLDS SPECIAL SIGNIFICANCE FOR YOU?

DO YOU KNOW OF ANY ATUA OR
TIPUNA THAT ARE ASSOCIATED WITH
THIS WAI?

WHAT TRADITIONAL ACTIVITIES DO
YOU KNOW OF THAT HAPPENED OR
STILL HAPPEN HERE?

WHAT ARE SOME THINGS THAT YOU WANT
TO LEARN MORE ABOUT REGARDING THIS
WAI?



INQUIRY PROCESS - WAI

START AN INQUIRY PROCESS OF YOUR WAI AND USE THESE QUESTION STARTERS AND IDEAS TO HELP GUIDE YOU THROUGH

APPROACH YOUR WAI - SEA, RIVER, OR LAKE. WHAT DO YOU FEEL WITH YOUR TOES? ON YOUR FACE? WHAT DO YOU HEAR? SMELL? TASTE?

- PAINT, PHOTOGRAPH, OR DRAW A PICTURE OF YOUR WAI WHEN YOU LIKE IT BEST.
- DO YOU KNOW ANY PŪRĀKAU OR WAIATA ABOUT WAI AND TANGAROA?

EXPLORE THE ORIGIN OF YOUR WAI. USE GEOGRAPHY, STORIES AND SCIENCE.

- ENGAGE WITH YOUR WAI - DIVE, SWIM, SURF, SAIL, SUP, KAYAK, WAKA AMA
- CHOOSE A CREATURE AND OBSERVE HOW IT MOVES THROUGH THE WATER. TRY TO MOVE AS YOUR CREATURE DOES.
- DO YOU KNOW ANY PŪRĀKAU THAT EXPLAIN WAVES, CURRENTS, OR TIDES?
- HOW DO WAVES, CURRENTS, AND TIDES WORK? CHOOSE ONE OF THESE AND MAKE A MODEL THAT HELPS US TO UNDERSTAND.
- HOW DOES WATER AFFECT SIGHT? EXPLORE MAGNIFICATION AND REFRACTION.
- HOW DOES WATER AFFECT SOUND? BOTH ACROSS AND UNDER?
- WHAT CREATURES CAN YOU FIND IN YOUR WAI? DRAW OR PHOTOGRAPH THEM.
- WHAT THINGS GROW IN YOUR WAI? WHAT DO THEY PROVIDE FOR THE CREATURES THAT LIVE THERE?
- WHAT DOES YOUR CREATURE EAT? HOW DOES IT CAPTURE FOOD?
- CAN YOU EAT YOUR CREATURE? WHAT IS THE BEST WAY TO CATCH, CAPTURE, OR GATHER IT?
- WHAT OTHER CREATURES FROM YOUR WAI DID MĀORI TRADITIONALLY EAT?
- HOW WAS THAT KAI MOANA PREPARED? DO WE STILL EAT THOSE THINGS?
- GATHER SOME KAI MOANA AND PREPARE IT TOGETHER.
- LISTEN TO YOUR WAI. WHAT DOES IT SOUND LIKE?
- ARE THERE INSTRUMENTS THAT SOUND LIKE THIS?
- ARE THERE TRADITIONAL INSTRUMENTS THAT COME FROM YOUR WAI?

**HOW ELSE COULD YOU EXPLORE YOUR WAI?
ULTIMATELY, WHAT CAN YOU LEARN FROM WAI?**

WHATUNGARONGARO TE TANGATA TOITŪ TE WHENUA

AS MAN DISAPPEARS
FROM SIGHT, THE LAND
REMAINS

THIS WHAKATAUKI
DEMONSTRATES THE
HOLISTIC VALUES OF THE
MĀORI; THE UTMOST
RESPECT HELD FOR
PAPATŪĀNUKU, THE EARTH
MOTHER, AND ALSO OUR
CONNECTION TO OUR
WHENUA. OUR
MAUNGA (MOUNTAINS)
AND WHENUA (LAND)
HOLD A SPECIAL
SIGNIFICANCE TO US ALL.



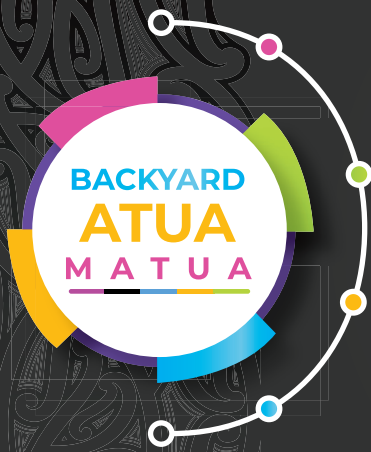
WHAT MAUNGA OR WHENUA HOLDS
SPECIAL SIGNIFICANCE FOR YOU?

DO YOU KNOW OF ANY ATUA THAT
ARE ASSOCIATED WITH THIS
MAUNGA OR WHENUA?

ARE THERE ANY TIPUNA
(ANCESTORS) THAT ARE ASSOCIATED
WITH THIS MAUNGA OR WHENUA?

WHAT TRADITIONAL ACTIVITIES DO
YOU KNOW OF THAT HAPPENED OR
STILL HAPPEN HERE?

WHAT ARE SOME THINGS THAT YOU WANT
TO LEARN MORE ABOUT REGARDING THIS
PLACE?



INQUIRY PROCESS - **WHENUA**

START AN INQUIRY PROCESS OF YOUR **MAUNGA** OR **WHENUA** AND USE THESE QUESTION STARTERS AND IDEAS TO HELP GUIDE YOU THROUGH

MĀ TE WHENUA KA ORA

- WHAT IS THE NAME OF THIS LIVING THING IN MĀORI? EXPLORE ITS WHAKAPAPA.
- WHAT IS IT CALLED IN ENGLISH? RESEARCH ITS TAXONOMY.
- FIND A WAIATA OR PŪRĀKAU ABOUT YOUR LIVING THING.

NGĀ KIREHE ME NGĀ NGANGARA

- CAN YOU MOVE YOUR BODY LIKE YOUR CREATURE?
- DOES YOUR CREATURE MAKE SOUNDS? CAN YOU IMITATE THEM?
- TAKE A PHOTO OR DRAW A PICTURE FROM THE PERSPECTIVE OF YOUR CREATURE
- WHAT DOES YOUR CREATURE EAT? HOW DOES IT GET IT?
- DOES IT GET EATEN BY SOMETHING ELSE? HOW DOES IT ESCAPE?
- DOES YOUR CREATURE MAKE ANYTHING? CAN YOU MAKE ONE TOO?
- IS THIS LIVING THING USED TRADITIONALLY BY MĀORI?
- CREATE A MODEL OF YOUR CREATURE.

NGĀ RĀKAU

- IS THIS LIVING THING USED TRADITIONALLY BY MĀORI?
- WAS THIS PLANT USED AS A TOHU FOR SOMETHING ELSE?
- USE YOUR PLANT IN A TRADITIONAL MANNER. KEEP A RECORD OF THE PROCESS.
- EXPLORE YOUR OUTSIDE SPACE. MAKE A MAP OF WHERE TO FIND YOUR PLANT.
- LOOK AT A MAP AND FIGURE OUT WHERE YOUR PLANT MIGHT GROW. GO FIND IT.
- ARE THERE DIFFERENT NAMES FOR THIS PLANT AT DIFFERENT STAGES? CAN YOU DRAW THEM?

**HOW ELSE COULD YOU EXPLORE YOUR WHENUA AND MAUNGA?
ULTIMATELY, WHAT CAN YOUR MAUNGA AND YOUR WHENUA TEACH YOU?**

KEI HOPU TŌU RINGA KI
TE AKA TAEPA, ENGARI
KIA MAU KI TE AKA
MATUA.

DO NOT GRASP THE VINE
THAT HANGS LOOSE, BUT
HOLD TIGHT TO THE
PARENT VINE.

ANCHORED FIRMLY
BELOW TO PAPA THE
EARTH AND ABOVE TO
RANGI THE SKY.



RANGI S K Y

KEI HOPU TŌU RINGA KI TE
AKA TAEPA, ENGARI KIA MAU
KI TE AKA MATUA.

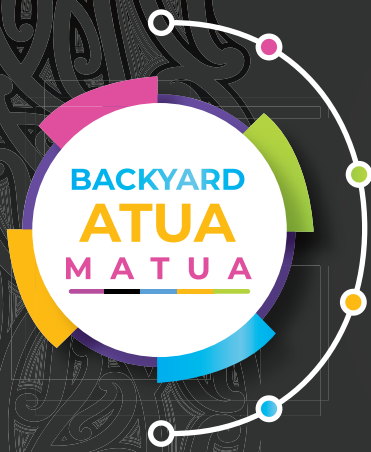
IS THERE ANYTHING IN THE SKY - SUN,
MOON, STARS - OR A PARTICULAR TYPE OF
WEATHER - CLOUDS, WIND, RAIN - THAT
HOLDS SPECIAL SIGNIFICANCE FOR YOU?

DO YOU KNOW OF ANY ATUA OR
TIPUNA THAT ARE ASSOCIATED WITH
THE SKY AND WEATHER?

WHAT TRADITIONAL ACTIVITIES DO
STARS INFLUENCE?

DO YOU KNOW OF ANY TRADITIONAL
ACTIVITIES THAT HAPPENED OR
STILL HAPPEN DURING A
PARTICULAR TYPE OF WEATHER?

WHAT ARE SOME MORE THINGS THAT YOU
WANT TO LEARN ABOUT RANGI?



INQUIRY PROCESS - RANGI

START AN INQUIRY PROCESS ON **RANGINUI**, THE STARS, THE CLOUDS AND THE WEATHER. USE THESE QUESTION STARTERS AND IDEAS TO HELP GUIDE YOU THROUGH LEARNING MORE ABOUT EVERYTHING ABOVE US.

RANGINUI

GO OUTSIDE ON A CLEAR NIGHT. GET COMFORTABLE AND WATCH THE SKY FOR A WHILE. WHAT DO YOU SEE? WHAT DO YOU NOTICE?

- DO YOU RECOGNIZE ANY SPECIFIC STARS? WHAT ARE THEIR NAMES? HOW DO STARS WHAKAPAPA? HOW DO OTHER CELESTIAL BODIES WHAKAPAPA?
- WHAT WAIATA AND PŪRĀKAU DO YOU KNOW ABOUT STARS? THE SUN? THE MOON? PLANETS?
- WHAT ELSE DO YOU KNOW ABOUT THE STARS? ABOUT THE MOON? WHAT ARE THEY MADE OF? WHAT MAKES THEM SHINE?
- WHAT TOHU ARE FOUND IN THE STARS?
- OTHER THAN TOHU, HOW WAS THE NIGHT SKY USED TRADITIONALLY BY MĀORI?
- CAN YOU IMAGINE FINDING YOUR WAY USING STARS? HOW DO YOU THINK IT MIGHT HAVE BEEN DONE? CAN YOU FIND OUT HOW IT WORKS?

HUARERE

DO YOU KNOW ANY WAIATA AND PŪRĀKAU ABOUT THE ATUA INVOLVED IN WEATHER - TUKAPUA, TĀWHIRIMĀTEA, I HORANGI?

- ARE THERE WAIATA AND PŪRĀKAU ABOUT THIS TYPE OF WEATHER?
- WHAT IS THE NAME OF THIS SPECIFIC WEATHER IN MĀORI? ARE THERE DIFFERENT NAMES FOR SIMILAR TYPES OF THIS WEATHER?
- WEATHER AND WHAKAPAPA - EXPLORE THE CONNECTION
- ARE THERE TOHU THAT LET YOU KNOW THIS WEATHER IS COMING?
- IS THIS WEATHER A TOHU FOR SOMETHING ELSE?
- FIND OUT HOW THE ATUA OF WEATHER ARE PORTRAYED IN MĀORI ARTWORK
- TAKE A PHOTO, PAINT A PICTURE, WRITE A POEM, CREATE A SONG THAT EXPRESSES HOW THIS WEATHER MAKES YOU FEEL.
- HOW ARE THE CREATURES, PLANTS, AND TREES IN YOUR TAIAO AFFECTED BY THIS WEATHER?
- WHAT DO YOU KNOW ABOUT CLOUDS? WHAT ARE THEY MADE OF? HOW ARE THEY FORMED?
- THERE ARE INSTRUMENTS THAT MEASURE ASPECTS OF WEATHER. MAKE ONE (OR FIND ONE) AND USE IT TO MEASURE THAT ASPECT OF YOUR WEATHER.
- DOES THIS TYPE OF WEATHER HAVE A SOUND? CAN YOU IMITATE IT?
- CAN YOU MOVE YOUR BODY IN A WAY THAT COULD REPRESENT THIS WEATHER?
- GET OUTSIDE IN YOUR WEATHER - RIDE YOUR BIKE ON A MUDDY TRAIL, RUN WITH AND AGAINST THE WIND, PLAY IN PUDDLES, ROLL AROUND IN THE SNOW.

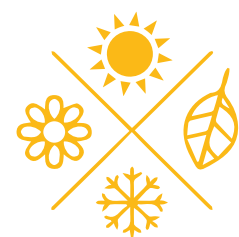
**HOW ELSE COULD YOU EXPLORE RANGI?
ULTIMATELY, WHAT CAN YOU LEARN FROM RANGI?**



ATUA MATUA

KA TANGI TE KĀREAREA
KI WAENGA O TE RANGI
PAI, KA UA ĀPŌPŌ
KA TANGI KI WAENGA O
TE RANGI UA, KA PAKI
ĀPŌPŌ

WHEN A
KĀREAREA SCREAMS IN
FINE WEATHER,
THE NEXT DAY THERE'LL
BE RAIN
WHEN IT SCREAMS IN
THE RAIN, THE NEXT DAY
WILL BE FINE.



TOHU
S I G N S

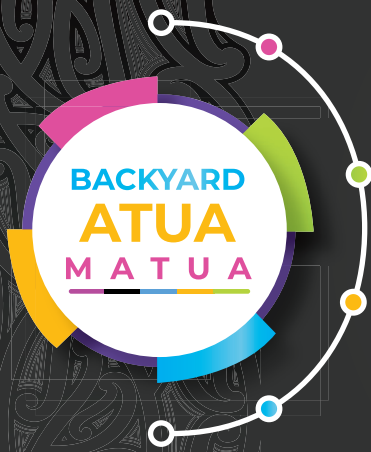
NGĀ TOHU O TE TAIAO

ARE THERE ANY TOHU THAT HOLD SPECIAL
RELEVANCE FOR YOU?

DO YOU KNOW OF ANY ATUA OR
TIPUNA THAT ARE ASSOCIATED WITH
TOHU?

WHAT ARE SOME THINGS THAT YOU
WANT TO LEARN MORE ABOUT
REGARDING TOHU?

WHAT TRADITIONAL ACTIVITIES DO YOU
KNOW OF THAT HAPPENED OR STILL
HAPPEN ACCORDING TO TOHU?



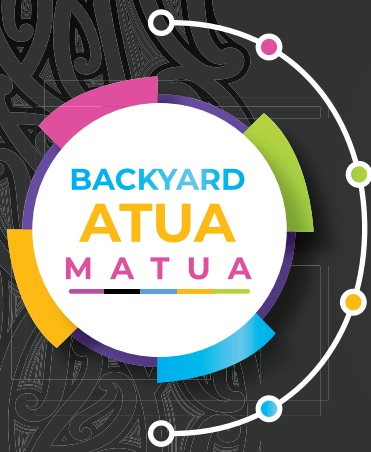
INQUIRY PROCESS - **TOHU**

START AN INQUIRY PROCESS OF **TOHU** AND USE THESE QUESTION STARTERS AND IDEAS TO HELP GUIDE YOU THROUGH.

WITHIN OUR TAIAO THERE ARE NUMEROUS NATURAL SIGNS, SIGNS THAT TEACH US HOW WE CAN INTERACT AND MORE IMPORTANTLY WHEN WE SHOULD ENGAGE WITH OUR ENVIRONMENT. NATURAL SIGNS COME FROM THE WIND, THE TREES, THE BIRDS AND THE MANY CREATURES THAT LIVE WITHIN OUR NATURAL ENVIRONMENT.

- ARE THERE ANY TOHU THAT HOLD SPECIAL RELEVANCE FOR YOU?
- DO YOU KNOW OF ANY ATUA OR TIPUNA THAT ARE ASSOCIATED WITH TOHU?
- WHAT ARE SOME THINGS THAT YOU WANT TO LEARN MORE ABOUT REGARDING TOHU?
- WHAT TRADITIONAL ACTIVITIES DO YOU KNOW OF THAT HAPPENED OR STILL HAPPEN ACCORDING TO TOHU?
- WHAT ARE THE STARS DOING? HOW DOES THE MOON AFFECT OUR TAIAO?
- WHAT EXACTLY IS MATARIKI? WHAT IS PUANGA?
- HOW CAN WE BETTER UNDERSTAND THE MARAMATAKA?
- CHOOSE A TOHU AND EXPLORE THE WHAKAPAPA THAT RELATE TO IT. WHAT IS CAUSING THIS EVENT OR TOHU?
- WHAT WAIATA AND PŪRĀKAU HAVE TOHU IN THEM?
- WHAT CHANGES DO YOU NOTICE IN THE TREES AND PLANTS IN YOUR TAIAO?
- WHAT CAUSES THESE CHANGES?
- ARE THERE NEW THINGS GROWING? THINGS YOU HAVEN'T SEEN IN A WHILE?
- WHEN IS THE SUN RISING AND SETTING? WHERE IS IT RISING AND SETTING?
- WHAT BIRDS DO YOU SEE? WHAT ARE THEY DOING?
- WHAT CREATURES CAN YOU FIND? WHAT ARE THEY DOING?
- CHOOSE A CREATURE OR A PLANT AND CREATE A PHYSICAL MOVEMENT THAT REPRESENTS IT FOR EACH SEASON AND LINK THEM TOGETHER.
- KEEP TRACK OF A CHANGE YOU ARE NOTICING. RECORD IT USING PHOTOS, WORDS, OR PICTURES.
- CHOOSE A PHYSICAL ACTIVITY YOU WOULD LIKE TO DO. THINK OF TOHU THAT INDICATE IT IS A GOOD TIME TO DO THIS ACTIVITY. WHEN THE TOHU ARE POSITIVE - DO THE ACTIVITY.

**HOW ELSE COULD YOU EXPLORE USING TOHU?
ULTIMATELY, WHAT CAN YOU LEARN FROM TOHU?**



INQUIRY PROCESS - LINKS

THE LINK BELOW TAKES YOU TO THE TOI TANGATA WEBSITE WHICH PROVIDES A LINK TO THE ATUA MATUA FRAMEWORK WRITTEN BY DR IHIRANGI HEKE.

- <https://toitangata.co.nz/our-mahi/atua-matua/>

THERE ARE SOME INCREDIBLE ATUA MATUA VIDEOS DEMONSTRATING DIFFERENT WAYS OF PHYSICALLY EMBODYING THE LEARNINGS FROM TAIAO. HERE ARE A FEW:

- <https://www.youtube.com/watch?v=A8bNafVkmhQ&list=PLudIUfHI6uRtiMjSmBU3MPNvIH1vo-jGQ&index=2> - Rō Tāne
- <https://www.youtube.com/watch?v=Bk3NN7FfV18&list=PLudIUfHI6uRtiMjSmBU3MPNvIH1vojGQ-&index=3> - Whai
- https://www.youtube.com/watch?v=Gsw-33jf_JQ&t=62s - Parawhenuamea
- <https://www.youtube.com/watch?v=uzjqaQMVAUo> - Tukapua and Tamateuira
- <https://www.youtube.com/watch?v=gu5QI7iedS> - Tāwhirimātea

TIHEI TAIAO IS A SERIES THAT FOCUSES ON DIFFERENT SEEDLINGS AND PLANTS WITHIN OUR TAIAO. IT EXPLORES WHAT OUR TIPUNA USED THEM FOR, THEIR KAI OR RONGOA USES AND HOW TO IDENTIFY THEM.

- <https://www.teamokura.com/online-series/tihe-taiao/?fbclid=IwAR0h7U92qFScNgNlf05ePXcJick-bWPt7-pyvsxA1Gf3ulDb7hXsIfWRPov8>

THE POKAPŪ AKORANGA PŪTAIAO OR SCIENCE LEARNING HUB IS A BRILLIANT SITE. HIGHLIGHTED BELOW IS A VERY HELPFUL ARTICLE ON INSECT TAXONOMY, BUT THERE ARE HEAPS OF EXCELLENT ARTICLES - JUST FOLLOW WHAT YOU ARE INTERESTED IN.

- <https://www.sciencelearn.org.nz/resources/2840-insect-taxonomy> - check out the insect mihi activity for an extra challenge.

IF YOU WANT TO KNOW WHAT BUG YOU'VE FOUND - IN EITHER LANGUAGE -CHECK HERE:

- <https://www.landcareresearch.co.nz/resources/identification/animals/bug-id-maori/te-akaaka>
- <https://www.landcareresearch.co.nz/resources/identification/animals/bug-id/what-is-this-bug>
- <https://www.nzbirds.com/birds/aves.html> - THIS IS AN EASILY LAID OUT TAXONOMY OF BIRDS, WITH THEIR LATIN, MĀORI AND ENGLISH NAMES.

TWO EXCELLENT SITES FOR EXAMPLES OF TRADITIONAL MUSICAL INSTRUMENTS ARE:

- <https://www.tepapa.govt.nz/discover-collections/read-watch-play/maori/maori-musical-instruments>
- <https://teara.govt.nz/en/maori-musical-instruments-taonga-puoro>

A GREAT RESOURCE FOR WEATHER INSTRUMENTS AND HOW TO MAKE THEM

- <https://www.wikihow.com/Make-Weather-Instruments>