

2025 rauemi akoraka

2025 learning resource

Puanga-nui-ā-rangi is the first star of the New Māori Lunar Year.

He guides Matariki, his sister, who comes later.

****Note the southern dialect is used in the document where the generic ng is replaced by a k, such as Raki /Rangi or Puaka/Puanga.*

To assist the user a papakupu / glossary is provided for highlighted words at the end of each subject.

Within Te Ao Māori, the rising of the stars **Puaka** (*Kāi Tahu dialect for Puanga*) and **Matariki** herald the end and the start of a year. Both are viewed as the time to farewell those who have passed in the previous year, celebrate the arrival of the New Year and prepare for the coming year in the custom of the local people. While both stars are celebrated differently by various Iwi Māori throughout the country the reasons remain the same, reflection, celebration and preparation.

2025 Christchurch City Libraries introduces a refreshed Puaka / Matariki framework based on the teachings of Ahorangi Rangi Mātāmua, NZOM, Victoria Campbell, and Che Wilson – Te Tau Toru o Matariki. Thus, Ngā Ratonga Māori / Māori Library Services provide this refreshed lens to this resource ensuring that information is current and relevant. Based around the maramataka – Māori Lunar-solar calendar, Puaka and Matariki play integral roles within the framework.

The aim of this resource is to raise students' awareness of Mātauranga Māori, and the proactive solution pathway focuses it provides for present day issues. In the words of Tā Tipene O'Regan, "this is not a conversation we started, rather it is one we have joined." (Sherwood-O'Regan, 2022) Put simply climate change, food sovereignty food security and wellbeing are not new topics for Māori, they are issues our tipuna faced, not in the complexity of today's conditions, but they were a real concern then as they are now. Understanding and connecting to our environment through aligning to the maramataka was the key. The rejuvenation of this knowledge is leading to not only a greater understanding of our natural world but more importantly helping us to reconnect to it.

Within this resource is information and ideas about Puaka and Matariki to help your students identify, learn about and celebrate the New Māori Lunar Year.

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Te tātai aroraki – Māori astronomy

The stars have always been a large part of Māori life. Planting, hunting, harvesting, gathering and navigation were all guided by the stars. Over the past thirty years there has been a rejuvenation in these practices. Māori have turned back to traditional practices guided by the stars. Two important stars are **Puaka** and **Matariki**.

Location and position are the key to what you can see. Puaka sits higher in the sky than Matariki, so it is easier to see for those inland and unable to see the horizon where Matariki sits during the time of the Māori New Year.

Traditionally the first sighting of Puaka on **Te Pātaka a Rakaihautū** was an indication of what the coming year might bring. Kāti Irakehu **tipuna** told of when Puaka rose from the ocean, he gave off unmistakable flashes. If the flashes are to the north and the star was low down and dim, then the coming year would be a year of plenty. If the flashes were to the south and the star was bright and twinkling, then it would be a bad year for crops. Matariki usually rises within three days of Puaka returning to its normal position, and its appearance confirms the **tohu** that Puaka showed. Both rise on the horizon on the same spot as the rising sun approximately an hour before the sun breaks the horizon.

The **Hautapu** ceremony to welcome Matariki usually takes place on a high vantage point or where you can view the horizon. After arriving the whānau prepare the hautapu while they wait for Matariki to rise. The first sighting of Matariki is greeted with the **Pūtātara** sounding then **karakia**. **Karakia** to each star follows, then calling out the names of those who had passed away and then the **Tohunga Kōkōrangi** would read the tohu. A fire would then be lit and those that had passed the previous year appropriately acknowledged. The conclusion of the ceremony would be the opening of the hāngī allowing the steam to rise up and give sustenance to those who had become stars. Prior to karakia, the whānau would formally farewell the old Lunisolar Year, then karakia would be said to conclude that part of the ceremony and begin the formal acknowledgement and welcome of the New Māori Lunar Year. (Rangi Matamua, Te Iwa o Matariki presentation 2016)



Image credit: A Review of Māori Astrology in Aotearoa – NZ (Journal of Polynesian Society, 2016)
originally printed in Journal of Astronomical History and Heritage, 16(3), 325-336 (2013)



Tatai Aroraki / Tatai *Māori astronomy*

Arorangi

Puaka / Puanga *The star Rigel – Puaka is the southern dialect / Puanga is the northern dialect*

Matariki *The star cluster Pleiades. Also, the name of the mother of the cluster who sits in the centre of the cluster*

Te Pātaka a Rakaihautū *Banks Peninsula*

Hautapu *Sacred wind - the offering to the stars*

Tipuna *Ancestors*

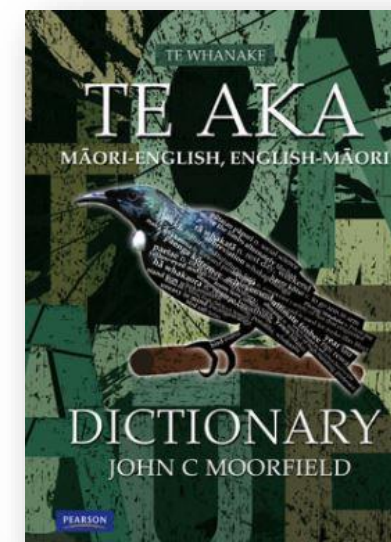
Tohu *Sign/s*

Pūtātara *Conch shell trumpet*

Karakia *Ritual chant, incantation*

Karaka / karanga *Women's call of acknowledgement*

Tohuka Kōkōraki *Astronomer – expert in the study of celestial bodies*
/Tohunga Kōkōrangi



LESSON 1: HE TAU HOU TE TAU - INTRODUCING THE MĀORI NEW YEAR

Puanga-nui-ā-rangi is the first star of the New Māori Lunar Year.

He guides Matariki, his sister, who comes later.

Background Information:

“Time is a measurement system used to sequence events or the intervals between events [such as seasons].” Prof Rangi Mātāmua, Nov 2023. Traditionally Māori never had the western time-based framework we have today. Traditional Māori timeframes were based on astronomical and environmental indicators that used the lunar phase as a baseline. Traditional Māori worldview was from a cultural perspective of place/event-based linked to their environment for example their birth. Rather than 26 September it would be – ‘I whānau au i te wao o te kōwhai – I was born when the kōwhai bloomed’. Similarly, the close of a year and the start of a year was based around the movements of Matariki and Puaka in relationship to the maramataka.

Maramataka

*The cycle of the Māori year is based on the cycle of the maramataka – Māori lunisolar calendar which is based on placement and relationship of star, sun and moon phase. Unlike the Western Calendar year, there are thirteen months in a lunar year. Māori measurement of time was based on nights rather than days hence the term ‘apōpō’ means after the night (tomorrow). The end and beginning of the Māori New Year are always marked in the cold months of the year. This was when the **hauhake** had been completed and the **whare wānaka** opened on Te Pātaka a Rakaihautū.*

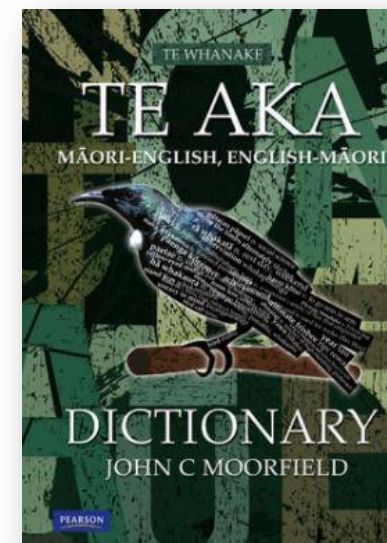
*Traditionally, in some **rohe** in **Te Ika ā Mauī**, the Māori New Year commenced following the first new moon or full moon of the cold months, while in other rohe it commenced following the first new moon after the rise of Puaka and Matariki. With the revival of celebrations in the 21st Century the end of the Māori Lunar Year and beginning of the New Māori Lunar Year coincides with the first new moon following the rise of Puanga and Matariki.*



Image credit: Living by the stars, 2025

Kupu Hou

Maramataka	<i>Māori Luni-solar calendar based on placement of star, sun and moon</i>
Hauhake	<i>Harvest</i>
Whare wānaka / whare wānanga	<i>School of learning</i>
Rohe	<i>region</i>
Te Ika a Māui	<i>North Island</i>



Activities for students

Activities		
Listen	Y1-3	<p>Listen to Māui – sun catcher</p> <p>In groups identify and discuss why did Māui catch the sun?</p> <p>https://storytime.rnz.co.nz/book/maui-sun-catcher</p>
Watch	Y6-8	<p>Watch ‘How was the Calendar invented?’ https://www.youtube.com/watch?v=SV5g-sZOKIQ ‘How the months got their name’ https://www.youtube.com/watch?v=mjSwRwAqQA4 and “Gods, Planets, and Weekdays” https://www.youtube.com/watch?v=LXgpm-qM9co</p> <p>Key questions:</p> <ul style="list-style-type: none"> • Where did the names of the days & months come from in the Gregorian calendar? • What is the difference between the Julian and Gregorian calendars? • When was the Gregorian created and by who?
Read	Y6-8	<p>Read ‘Waiting’ by Nadine Anne Hura [download via https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-3-August-2020/Waiting]</p> <p>Key questions:</p> <ul style="list-style-type: none"> • How does Bella count the days? • What are the changes she notices?
Write	Y6-8	<p>Using the information gained from the videos and story write a short story about how you keep track of time using nature and not mechanical things like clocks etc</p>
Create	Y3-5	<p>Work together in groups, these can be a mix of teina-tuakana / of mixed age, where the older student supports the younger student</p> <ul style="list-style-type: none"> • Watch https://www.natgeokids.com/uk/home-is-good/make-a-water-clock/ <ul style="list-style-type: none"> - Create your own water clock - Write a list of things you can use your water clock to time

LESSON 2: TE TAU TORU NUI O MATARIKI

Kua haehae ngā hihī o Matariki

Always be grateful for the blessings you receive

Matariki is a time of giving and receiving no matter how big or small, be grateful

(Rangi Matamua, Kura Reo ki Te Waipounamu, 2014)

Background Information:

In recent years Te Mauria Whiritoi, led by Professor Rangi Matamua, has undertaken research into “the sky as a cultural resource”. The traditions relating to the Māori New Year marked by the rise of Matariki is part of this research.

Matariki (Pleiades) is an open star cluster of approximately 500 stars, with only seven to nine stars able to be seen clearly by the naked eye. Appearing on the eastern horizon in the winter months, usually between mid-May to early July, its arrival is foretold by the appearance of Puaka on the eastern horizon. In 2016 Professor Mātāmua reintroduced the two ‘left out’ stars – Pōhutukawa and Hiwa-i-te-Raki, through the kaupapa “Te Iwa o Matariki”. There are various reasons for why these two stars were not included in contemporary times, including the promulgation of the Greek story of Pleiades relating to the fate of seven sisters and from which the star cluster takes its more common western name.

Te Tau toru nui o Matariki

Te Tau Toru nui means the three-year cycle of Matariki. This cycle is preserved in the names of three stars of Tautoru. The rise of Matariki is based on the maramataka, a 354-day Māori lunisolar calendar which is derived from the visibility of certain stars before sunrise, the placement of the sun with the correct lunar phase and month. This means that every year the maramataka loses 11 days compared to the 365-day Gregorian calendar. So, every three years, the 33 missing days are added to the maramataka through intercalation of an extra month. Intercalation is the insertion or addition of something between other things. With time it is the introduction of an extra day, week or month to a calendar and example is a day added every four years to the Gregorian calendar, known as a leap year. Within the maramataka intercalation is known as Tahi wehewehe and the month is Ruhanui. To learn more about this and for more resources visit <https://livingbythestars.co.nz/>



Image credit: Living by the stars, 2025

Matariki-Te Whetū Tapu o te Tau

The rise of Matariki heralds the beginning of the Māori New Year. Ceremonies known as **Te umu-kohukohu whetū** and **Hautapu** are held throughout the **motu** during the period of Matariki to remember those who have passed away, farewell the old year, welcome the new year and plan for the coming year. Traditionally this is done through observing the star cluster.

Each star have an association over a domain: **Pōhutukawa** = Those who have become new stars in the sky, **Tupūānuku** = that which grows in the earth, **Tupūāraki** = that which grows [live] in the air, **Waitī** = that which lives in the fresh water, **Waitā** = that which lives in the ocean, **Waipunārangi** = the rain, **Ururangi** = the winds and **Hiwa-i-te-Rangi** = aspirations and goals. **Matariki** the mother is associated with healing and bringing people together and **Rehua** the father, is associated with **rongoā** – Māori herbal medicine

It is said that during the winter as Matariki rises in the East, Rehua is setting in the West. As they pass the horizon at the same time, “their feet touch the earth and from this the bounty of their children come forth on earth.” (Rangi Mātāmua, Te Tau Toru Nui o Matariki, September 2023)

It is following the Hautapu that Matariki is observed or ‘read’. This is undertaken with the naked eye and no telescope is used. There are five things to consider when reading the stars: position, brightness, colour, clarity and movement. Traditionally it was the Tohuka Kōkōraki who were very skilled in this work having trained from childhood that would observe the star cluster. This could involve several people. Nowadays we don’t have these people anymore, but there are those who have become proficient in this mahi. Usually involving more than one person the cluster is observed, in some places specific people may be appointed to observe specific stars. At the conclusion they will come together and discuss what they saw, what their interpretations of their observations are and from this plan their hunting and planting for the coming year accordingly.



Kāi Tahu Hautapu ki Wānaka, Matariki 2024

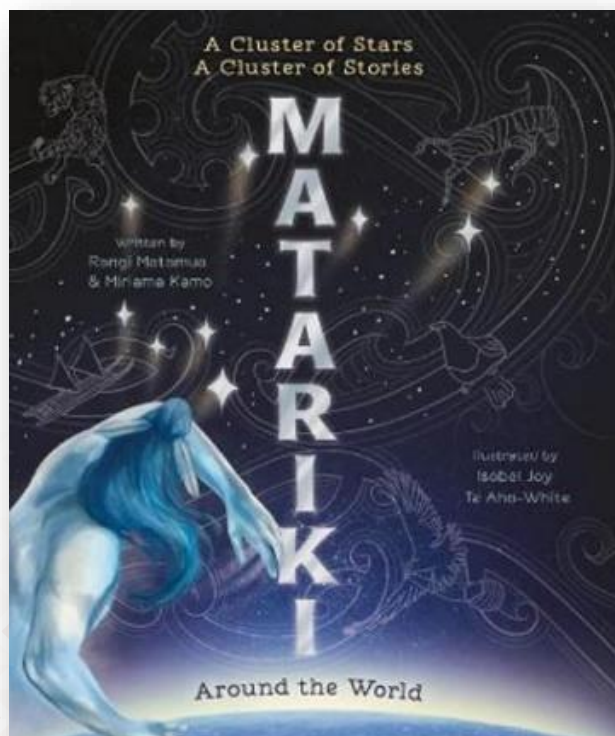
Image credit: Te Karaka, August 2024

Photographer credit: Ritchie Mills

Matariki & overseas:

The star cluster known throughout the world. Greek mythology records them as the seven daughters of Atlas and Pleione who turned to doves and flew into the night sky. It was Zeus who immortalised them as stars forming the star cluster Pleiades. It is this story that has been the basis of most stories associated with the star cluster. There are a number of important Greek temples that face towards Matariki/Pleiades.

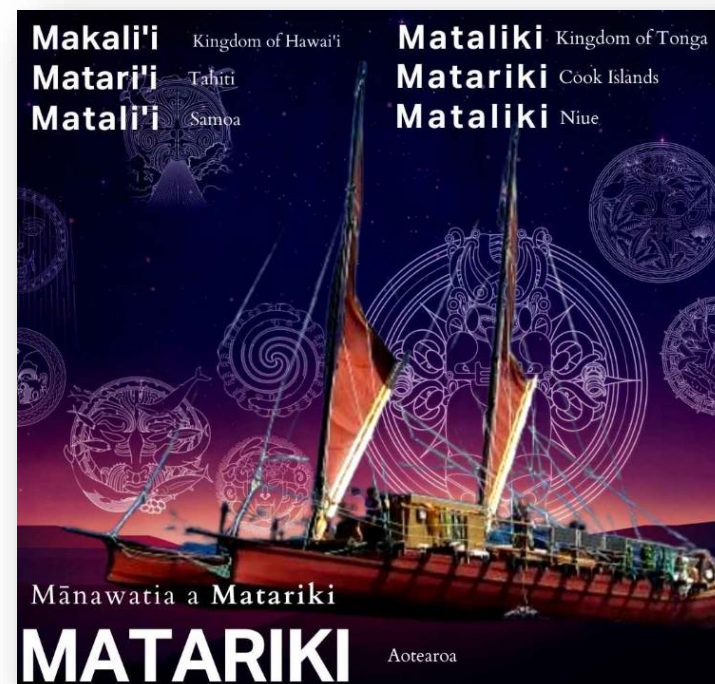
The Matariki oral traditions are found throughout the Pacific with each **iwi** recording their own traditions and variations of the star clusters name.



Matariki around the world is a great resource it includes stories from the Pacific and at least one from all the Continents

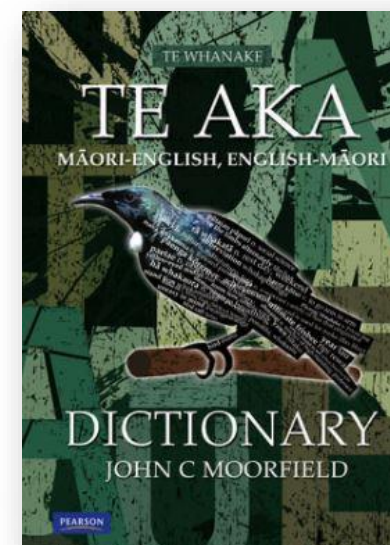
An example of a Matariki story form around the world is this one of Al Thuraya and Aldebaran which is still told throughout Turkey, Persia, and Arabia.

Al Thurayya or Thuraya is the Arabic name for Matariki. It means 'The little abundant one' and is culturally significant star cluster in Arabic mythology representing abundance, fertility and protection. The story tells how Thuraya was pursued by **Aldebaran** (meaning the follower in Arabic) who was determined to make her his wife.



Kupu Hou

Te Whetū Tapu o te Tau	<i>The sacred star of the year</i>
Te Umu Kohukohu Whetū	<i>A formal ceremony involving food offerings which are associated with the stars of Matariki</i>
Hautapu	<i>The broader concept of ceremonies including the offerings and other practices</i>
Rongoā	<i>Māori herbal medicine</i>
Iwi	<i>Tribe or Tribal group</i>
Tohuka Kōkōraki / Tohunga Kōkōrangī	<i>Māori Astronomer</i>



Activities for students

Activities		
Listen	Y1-3	<p>Listen to ‘The Whānau of Matariki’ by Loop Tunes https://www.youtube.com/watch?v=kZyNtC8Zvo4</p> <p>In groups identify and discuss who are the members of the whānau/family of Matariki and what each of their roles are.</p>
Watch	Y6-8	<p>Watch and listen to ‘What is a Leap Year?’ https://www.youtube.com/watch?v=56zlm9qhVGc</p> <ul style="list-style-type: none"> Who first discovered a leap year? How did they discover this? Who ‘intercalated’ the leap day? What are the intercalation rules with the Gregorian calendar?
Read	Y6-8	<p>Read a story from “Matariki around the world” by Rangi Matamua & Miriama Kamo</p> <p>Key questions:</p> <ul style="list-style-type: none"> What is their Matariki story about? What are the key points in that story?
Write	Y6-8	<p>Using the information gained from the video and the book, write a story about why Matariki is important to so many people</p>
create	Y3-5	<p>Research the video “Matariki Craft Woven Star” https://www.youtube.com/watch?v=ISk-kfKCSl4</p> <p>Make sheet https://my.christchurchcitylibraries.com/wp-content/uploads/sites/5/2017/05/MATARIKI-2017-Community-Art-Project.pdf</p> <ul style="list-style-type: none"> Watch the video and then collect all your resources In groups of three <ul style="list-style-type: none"> Create three woven stars each of different colours and sizes Present and demonstrate it to your class

LESSON 3: PAUNGANUI O TE RANGI - PUAKA

Ko Puaka te pae ārahi i kā tohu o te tau hou i te ururangi

*Puaka leads the celestial signs to herald the [Māori] New Year
Che Wilson, Te Papa*

Background Information:

Puaka sits higher in the sky than Matariki, so it natural that some iwi will see Puaka more easily than Matariki, particularly those that live inland. The tribes of Whanganui, Taranaki, Rangitikei, parts of the far North and parts of Te Waipounamu recognise Puaka as an important marker of the New Year.

Puaka

*Puaka sits near the top of the **taurapa** of **Te Waka o Raki**, the great celestial waka that travels the night skies for 11 months.*



Te Waka o Rangi

*Image credit: Mark Russell, Otago Daily Times,
22 June 2024*

*At the end of the 11th month the **waka** ‘sets’ by diving into the underworld. In doing this, Puaka then moves to form **Te Whata nā Maru** with Tauru and **Pūtara** which can be seen for approximately 28 days after dusk.*

It is during this period that Puaka is observed or ‘read’. This is when the appearance of Puaka (like Matariki) is noted such as its position, clarity, colour and what other stars are observed which can give valuable insights into weather patterns and seasons.



Te Whata nā Maru – formed by Puaka, Tauru and Pūtara

*Image credit: Grant Hakaria (2017)
Puanganui-o-te-Rangi Resource, 2024*

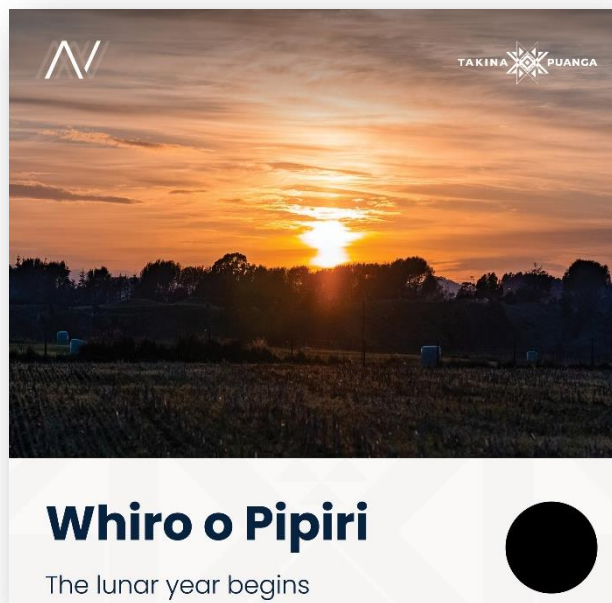


Image credit: Naia-Takina Puanga 2025

Whiro – the new moon marks the beginning of a new cycle. When it rises in Pipiri, Whiro also signals the beginning of the new lunar year which is celebrated later in the month. Pipiri is also the beginning of Hōtoke [or Takurua], the winter season, the time of cold weather. Meaning “to cling together” Pipiri is a reminder to whānau to huddle close for warmth. (Naia-Takina Puanga, 2025.)

*For Kāti Irakehu of Te Pātaka o Rakaihautū, the appearance of Puaka and a combination of other stars at the beginning of the cold months, signals the opening of their winter **Whare Wānaka**. The placement of Puaka as part of Te Whata nā Maru is also an indication that the **hauhake** has finished for the growing year.*

*The last of the Kāi Tahu **mahika kai** hauhake is the Tītī/mutton birds, harvested from the Moutere Tītī/Mutton Bird Islands south of Rakiura/Stewart Island at the bottom of Te Waipounamu.*

Ko Puaka te whetū ārahi i a Matariki ki te Tau Hou

Puaka is the star that guides Matariki to the [Māori] New Year

Nō Te Taitokerau

*Puaka is known in western astrology as Rigel. It is the seventh brightest star in the night sky and holds a significant place within many tribes throughout **Aotearoa me Te Waipounamu** as a marker of the end of the old year and beginning of the new year.*

*In recent years the **iwi** of **Te Taiuru** have revived their practice of Puaka celebrations and in doing so compiled a resource to guide people. With in this document, collated by Che Wilson and produced by **Naia**, is information relating to the various ceremonies, karakia and important information relating to Puaka.*



Resources produced by Naia 2024



Image credit: New Zealand Tertiary Collage, 2024

When Puaka & Tautoru return to their normal positions, it is a traditional indication that Matariki will rise within three days and preparations are made to welcome the Māori new year. Various ceremonies and hui were held during this period including a Whakamoe Tau.

Tau was traditionally the word for season but is now associated with a year of the Gregorian calendar. **Whakamoe** means to put to sleep, therefore a **Whakamoe Tau** was traditionally a seasonal debrief.

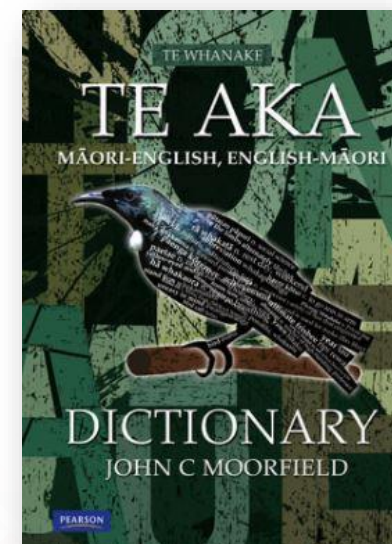
Normally the time of a whakamoe tau is at the end of the season, this is when people gather to discuss and compare observations within their environment. Aligned with the **maramataka**, the whakamoe tau considers plant growth, changes in the environment, weather patterns, period of the maramataka, wildlife movement and changes.

Coupled with the 'read' of Matariki and Puaka, the whakamoe tau held at this time of year helps with sustainable planning **māra** and mahika kai for the coming year.

Mātahi o te Tau <https://matahiotetau.nz/puaka/> is a resource produced by Kāi Tahu whānau in Murihiku/Southland and offers information from their part of the motu.

Kupu Hou

Te Waka o Raki/	<i>a celestial canoe that said the night sky</i>
Rangi	<i>** Raki is the southern dialect for Rangi</i>
Taurapa	<i>Stern post</i>
Wairua	<i>Spirits</i>
Tautoru	<i>Orion's Belt</i>
Waka	<i>Canoe</i>
Whata	<i>Storehouse</i>
Pūtara	<i>Betelgeuse – the 10th brightest star found in the Orion constellation</i>
Aotearoa me Te	<i>Traditional names for North and South Island</i>
Waipounamu	
Iwi	<i>tribe</i>
Te Taiuru	<i>West Coast (of North Island)</i>
Naia	<i>A Māori Business consultancy</i>
Whare wānaka /	<i>Schools of higher learning</i>
Wānanga	
Hauhake	<i>Harvest</i>
Mahika Kai	<i>Sustainable natural resources including food</i>
Māra	<i>A cultivated food garden</i>
Maramataka	<i>Māori Luni-solar calendar based on placement of star, sun and moon</i>



Activities for students

Activities		
Listen	Y1-3	<p>Listen and watch the Matariki me Puaka video</p> <p>In groups, using the downloaded song sheet, identify what is the role of Puaka and what are it's other names</p> <p>Learn the song and sing it to your school and / or whānau</p> <p>https://vimeo.com/772259629</p>
Watch	Y6-8	<p>Watch and listen to Che Wilson, MetService NZ, June 2023</p> <p>https://www.youtube.com/watch?v=x3FQ-jyydF8</p> <p>What are the four themes of Puaka and what do they focus on?</p>
Read	Y6-8	<p>Read the introduction and the next six pages of Puanganui o te Rangi compiled by Che Wilson & produced online by Naia [available in te reo Māori and English] https://www.puanganui.co.nz/resources</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What is important about Puaka? • What is Te Whata nā Maru? • What are the parts of the ceremony for Puaka?
Write	Y6-8	<p>Using the information gained from the videos and the book, write a story about how your whānau might prepare for the period of Puaka before Matariki</p>
create	Y3-5	<p>Work together in groups, these can be a mix of teina-tuakana / of mixed age, where the older student supports the younger student</p> <ul style="list-style-type: none"> • Watch “Making a Watarangi” https://www.youtube.com/watch?v=LXv3k71dMZE <ul style="list-style-type: none"> - Create your own whatarangi - Write a list of things that could be used on for a hautapu

LESSON 4: TE WAKA O RAKI

Kāpā ianei he Kahukura tū
Only a Phoenix rises from the ashes
A reminder to not rush in or be hasty

Background Information:

The star cluster of Matariki sits at the front of **Te Waka o Rangi** a great celestial **waka** that travels the night sky. It is known by many tribal names throughout the **motu**, but the most common name is Te Waka o Rangi.

Te Waka o te Pō – the canoe of the night

For 11 months of the **Gregorian calendar** Te Waka o Rangi travels the sky each night collecting the **wairua/spirits** of those that have passed away that day.

To find the waka, first find Tautoru / Orion's Belt, which are three stars that sit in a row.

Now come across to your left, to a grouping of five stars that look like a peak. These are the sails and are known by different names such as Kokotā or Matakaheru.

Carry on past them to the next cluster of stars and this is Matariki sitting at the ihu or nose of the waka guiding it through the night sky.

Now if you come back to Tautoru the star just above the star on the right, is Taramainuku. He is the captain of the waka.



Photo credit: Living by the Stars

Copies of this poster is available from their website – note Puaka has been added

His role is each night to cast his net out into the night sky as he and his **kurī** pass over the highest peaks of our sacred mountains where the wairua wait. They then climb up the net on to the waka where Taramainuku greets them and then weaves them into the kurakura at the back of the taurapa.

Other information about the stars that make up Te Waka o Rangi:

Whetū	Star	Colour	Whakamārama / explanation
Puaka	Rigel	Blue	<i>The 7th brightest star in the sky which sits at the top of the taurapa of Te Waka o Māui</i> <i>Some iwi herald Puaka as the beginning of the Māori New Year, while others see it signalling the ending of the old year and time to prepare for the coming new year.</i>
Te Hao o Rua	Orion's nebula <i>The middle star of Te Kakau</i>	Red, blue-violet & green	<i>Is a stellar nursery where new stars are born and sits among Te Kakau on the taurapa</i> <i>It is linked to Pōhutukawa</i>
Te Kakau	Orion / Orion's scabbard	Red & Blue	<i>Is a colourful constellation with the two stars on an angle out from Tautoru being the most prominent, sometimes referred to the handle of the pot</i>
Tautoru	Orion's belt	Blue-white	<i>Three stars in a row forming the belt of Orion arranged in a straight line immediately below Rigel forming part of the stern of the waka</i>
Kōkota	Hyades	Blue-white with some red & yellow	<i>Forms the sail of Te Waka o Rangi, it is made up in a V shape It is known as the face of the bull</i> <i>An open star cluster in the constellation of Taurus appearing to surround Taumata-kuku</i> <i>2nd closet to earth</i>
Pūtara	Betelgeuse	Red	<i>This giant star has an orange-red hue and is located in the constellation Orion and marks his shoulder</i>
Matariki	Pleiades	Blue	<i>Primarily blue in colour, it is a star cluster which sits on te ihu o te waka (the front of the waka)</i>



Photo credit: Language Closet
Shows the setting of Matariki as it dives into the underworld

At the end of the 11th month the waka then sets by turning and diving into the underworld. This is the time of Puaka and when Te Whata nā Maru forms with Puaka, Tautoru and Pūtara – see section on Puanganui o te Rangi – Puaka. It is said that during this time, the wairua are prepared to become new stars in the night sky.

As waka starts to rise back on to the horizon roughly 28 days later, Puaka starts to move back into its normal position. This is the traditional tohu to Kāti Irakehu of Te Pātaka a Rakaihautū that Matariki was due to rise again bringing with it the start of a new year.

It is said that when Matariki rises, Taramainuku then opens his net releasing all the new stars up to **Te Hao o Rua** from where Pōhutukawa places them in the sky. Part of the Matariki ceremony is to acknowledge those who have passed away by calling their name. Tradition says that when Pōhutukawa hears their name called out, she knows where to place that new star, so they are looking down on their loved ones.

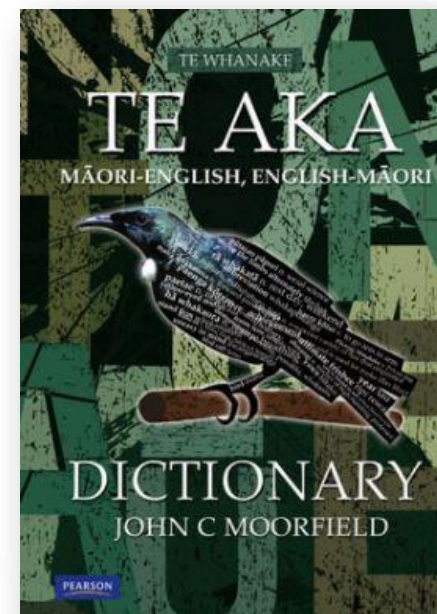
Te Hao o Rua is the middle star of Te Kakau – Orion's scabbard. Astronomers have confirmed that this is a nebula – a place where new stars are formed and created.

While the nebula was 'discovered' by western astronomers through a telescope, Māori **Tohuka Kōkōraki** observed it with their naked eye. Tohuka Kōkōraki were trained from a young age in the **mātauraka** of astronomy and so their eyes became strong enough to observe the smallest changes in the night sky.

A Kāti Irakehu tradition is that, following Matariki, if we miss a person who has passed away, we go outside, close our eyes, say the person's name and then we open our eyes and look up at the sky. The belief is the first star to 'twinkle' at us, is that person 'star waving' at us, letting us know they are never far away and always looking down on us.

Kupu Hou

Te Waka o Raki/	<i>a celestial canoe that said the night sky</i>
Rangi	<i>** Raki is the southern dialect for Rangi</i>
Waka	<i>Canoe</i>
Motu	<i>Country</i>
Gregorian calendar	<i>A solar based calendar used in most parts of the world</i>
Kurī	<i>Māori Dog</i>
Te Hao o Rua	<i>Orion's Nebula</i>
Tohuka Kōkōraki /	<i>Māori expert of astronomy</i>
Tōhunga Kōkōrangi	
Mātauraka /	<i>Māori knowledge</i>
Mātauranga	



Activities for students

Activities		
Listen	Y1-3	<p>Listen to 'How my Koro became a star' by Brianne Te Paa https://www.youtube.com/watch?v=BfjRrZJX0YI</p> <p>Working together identify:</p> <ul style="list-style-type: none"> - What were some of the lessons Koro taught the storyteller? - What was their first mission? - What were the things that they collected? - List all the things that Koro and the storyteller did at their Hautapu ceremony
Watch	Y4-8	<p>Watch 'A Journey into the Orion Nebula' https://www.youtube.com/watch?v=VrnNrQijDgU</p> <p>Working in groups or pairs identify:</p> <ul style="list-style-type: none"> - What is the brightest star in the nebula? - What are nebulas made from? - What are bullets and how old are they? - What has caused the nebula to lose 60% of its material? - How long will it take until all its material will be stripped?
Read	Y5-6	<p>Read: "Matariki-Te Waka o Rangi" Download via: https://www.playcentre.org.nz/wp-content/uploads/2023/06/Matariki-Te-Waka-o-Rangi-2.pdf</p> <ul style="list-style-type: none"> • What the opportunities that this time of year offers? • Select one that you and your class could do this Matariki
Write	Y7-8	Write a letter to your future self who is 10 years older, telling them all the things you hope to achieve by the time you are their age.
Tell	Y6-8	In groups make a list of all the ways and things you can do to remember people. Then share that list with your class who can pick two from the lists that the class can do for Matariki.

LESSON 5: KAHUI WHETŪ

Matariki kanohi iti

Attention to detail

Said of a person who is observant and diligent with their work

Background Information:

Te kāhui whetū is a name given to a constellation or group of stars. The whetū/stars are part of Te Whānau Mārama/whānau of light who we will talk more about in the next chapter.

Eldon Best recorded these observations, collecting and documenting Māori star lore in publications such as ‘The Astronomical Knowledge of the Māori.’ Such publications are based on interviews and manuscripts of kaumātua/knowledgeable tribal elders and Tōhuka Kōkōraki such as Te Kōkau Himiona Pikikōtukua, the four times great grandfather of Professor Rangi Mātāmua. In his manuscript, Te Kōkau and his son Rāwiri Te Kōkau name over 1000-star names and 103 constellations. Professor Mātāmua having published the chapter on Matariki from the manuscript aims to share other parts of the manuscript in the near future.

Tātai Aroraki / Knowledge of celestial bodies

Tohuka Kōkōraki are experts who are well versed in mātauraka Māori relating to the stars. Traditionally they would have been trained from childhood to observe the night sky and undertake the training to become a Tohuka Kōkōraki. Using only their naked eyes they would record in waiata/song, karakia/chants, and pūrākau/oral traditions their observations.

Such observations would include position when it rose into the sky; was it before or after the rising of the sun or moon; it’s appearance and of course it’s colour. While most people think all stars are white or silver, they are in fact different colours depending on their surface temperature. Blue stars are the hottest stars while red stars are the coolest.

The following chart identifies the Māori & astronomical names for various stars and their colours.

Colour:	Māori Name:	Astronomical name:	Kā momo kōrero/Information:
Blue	Whiti-kaupeka	Spica	<i>the brightest in the constellation of Virgo. Its rising heralded the start of Whiringa-ā-nuku</i>
	Uruao	Tail of Scorpius / Cats eyes	<i>It is a double star which is close together</i>
Blue - white	Takurua / Hine-takurua	Sirius	<i>The Dog star, one of the brightest stars in the sky and found in Te Kāhui Takurua (Canis Major). Hine Takurua is the name given to the star when it is seen on the eastern horizon in the month of Pipiri before the sun rises. It is considered to be the winter maiden with who Te Rā spends the winter months without at sea</i>
	Whānui	Vega	<i>5th brightest star in the sky, brightest star in the constellation of Lyra</i>
White	Aotahi / Autahi / Atutahi	Canopus	<i>The second brightest star in the sky but can appear yellow tinged. Because it is low in the sky the effects of the earth's atmosphere make it appear dimmer and redder. It is part of the Scorpius-Centaurus Association</i>
	Pekehāwani / Whakaokikai		<i>Star in the constellation te Waka o Mairangi a wife of Rehua When she is up and Rūhī is down it is the tohu of the tuna heke for Kāti Irakehu</i>
White - yellow	Rūhī		<i>Wife of Rehua, who descends in summer & places her feet on the ground which warms the soil making the plants grow</i>
	Te Rā	Sun	<i>In the Southern Hemisphere the sun travels from right to left on a path from east to west which is across the northern sky (in the northern hemisphere it travels left to right across the southern sky). In winter it rises in the north-east and sets in the north-west and in summer the sun rises in south-east and sets in the south-west.</i>

Colour:	Māori Name:	Astronomical name:	Kā momo kōrero/Information:
Yellow	Hōkūlei	Capella	<i>Known as the goat star, it is relatively low in the sky and not as prominent as the northern hemisphere. While you can just see it in Ōtautahi/Christchurch, the further south you go in Te Waipounamu past Ōtautahi, lower it will be and the less likely to be visible.</i>
Orange	Taumata-kuku / Whetū-kura	Aldebaran	<i>The brightest star in the constellation of Taurus</i>
Red	Rehua	Antares	<i>Brightest star in the constellation of Scorpius and is associated with Summer</i> <i>He is associated with Māori medicinal plants and is the father of the children of Matariki</i> <i>It is said when Matariki rises in the east and Rehua in the west this is when they couple and bring life to their children and their offspring.</i>
Multiple	Mahutoka / Te Puka o te waka o Tamarēreti	Southern Cross	<i>Constellation of Crux seen in the southern skies and said to be a key navigational marker</i> <i>It is also known as the anchor stone of Te Waka o Tamarēreti</i> <i>The waka is known to some as Uruao and features Blue, red, orange & white colours</i> <i>Alpha Crucis / Acrux brightest star blue-white & consists of 2 stars that appear as one to the naked eye (bottom)</i> <i>Beta Crucis / Mimosa blue giant that forms the eastern tip</i> <i>Gamma Crucis / Gacrux (top) red-orange part of a optical double star</i> <i>Delta Crucis/ Mai blue-white western tip</i> <i>Epsilon Crucis / Ginan orange hue</i>
	Hakihea	Alpha Centauri	<i>The third brightest star, A triple star system that is closest to our solar system. While it appears yellow and white but has multiple stars including a yellow dwarf and orange dwarf</i>

Kāi Tahu oral tradition tells of a great kākahu / cloak of stars that adorns the night sky. Placed over **Rakinui** by his son Tāne following the separation of his parents it is known by many names. While there are many stories relating to the kākahu and how it came to rest on Rakinui the following story comes from Kāi Tahu **Tohuka** Matiaha Tiramōrehu.

Te Ikamatua a Takaroa

It is said that Te Ikamatua a Takaroa is an exceptionally beautiful kākahu. It was Tāne that gifted it to his **Hākoro** following the separation parents. According to Tiramōrehu, it was at the request of Raki that Tāne, assisted by his younger siblings, put their Hākoro to sleep and then asked Paia (another younger sibling) to say the karakia to lift Raki up to Rehua in the heavens. When all was finished Raki lay alone and naked. Tāne felt great compassion for his Hākoro and so went in search of something beautiful to adorn him with.

Tāne travelled a long time and to many places until he finally came to the house of Hineateao. It was here that he saw shining above the summit of Mahukiteraki, the children of Te Paetai, of Ira and of Tokomeha which make up Te Ikamatua a Takaroa. According to Tiramōrehu, Tāne desired these greatly to adore his Hākoro. Following the instructions of Hineateao, he arrived at Mahukiteraki only to find one of his young brothers, Wehinuiamamao, had arrived before him capturing the stars for himself.

Tāne upon explaining his desire to use Te Ikamatua a Takaroa as a kahu for their Hākoro, Wehinuiamamao gifted the kahu whetū to him. Tāne returned to the place where Raki lay naked and threw the kahu whetū up over Raki and began to position them. But according to Tiramōrehu Tāne did not throw all the stars up to Raki. He kept five stars which he positioned in specific places, these are Puaka and his younger brother Takurua who are signs for the time of mahinga kai; Weroiteaumāria the summer star; Weroiteninihi, and Weroitekokoto the stars of winter. The last three stars are also navigational stars. To this day Te Ikamatua a Takaroa still adores Raki and the five stars still act as **tohu** for our people Kāi Tahu.



Whatū – traditional Māori fibre-weaving is used to produce kākahu (cloaks made from feathers and other adornments) and korowai (cloaks with black twist tags, tassels and thrums). The following are examples of some of these taonga.

Tōpuni / Kahu Kuri



Dog-skin cloaks were among the most treasured of all the kākahu and korowai. Within Kāi Tahu they were reserved for the most senior members of the tribe – normally a male. To wear someone else's was considered a great insult and would result in death or war. This was the case when Murihaka a woman of lower rank tried on the Tōpuni of Te Maiharanui. Such was the insult that it instigated an inter-tribal war known as the Kai Huaka (Huanga) – the battle of eating relations.

Tōpuni remain a sacred item among Kāi Tahu. Where once they identified rangatira, they are now used as a form of protection to identify sacred sites.

Kaitaka / Parawai



Kaitaka, also known as Parawai to the Whanganui River people, are finely woven korowai with only **tāniko** borders as decoration. They were normally worn under Tōpuni, Kahu Kiwi and Korowai. Made from prepared **muka** known as **whītau**, the weave is close together giving the appearance of being stitched. At the beginning of this century Maniapoto and Uekaha senior weaver Te Aue Davis wove a Kaitaka for Wiremu Solomon of Takahanga, Kaikōura. It took over a year and thousands of whenu and aho to create this beautiful Kaitaka. It was a labour of love and although sadly Wiremu Solomon passed before the kaitaka was completed, Te Aue finished the Kaitaka, presenting it to his whānau upon completion.

Pākā / Tihetihe / Hieke



Rain capes were made from freshly prepared harakeke and other natural plant resources available. Although Māori tended not to travel in the rain, they did use the capes on a daily basis when out collecting mahika kai in case they were caught in a shower. In **Waitaha** they tended to be made from shredded harakeke. Reverend James Stack noted in his journal in the late 1850's that the local Māori resembled little haystacks when seated wearing their rain capes. Traditionally Māori would squat to sit, the rain cape would drape around them leaving only their heads sticking out. From a distance they appeared to be small haystacks.

Photo Credits: Te Papa Tongarewa

Kahu Huru

Feather clocks are considered prized possessions by whānau, hapū and iwi. Traditionally adorned with the feathers of native birds, these were soon replaced by the feathers of introduced species and materials brought by the early settlers. Wool and peacock feathers proved to be popular and appear on many Kākahu woven during the contact period with settlers. Over the years many introduced materials have been substituted for traditional materials. Mop cloth for whītau and muka, all types of feathers for native feathers, chemical dyes for traditional dyes, sewing for whatu. In recent years to ensure the preservation of this tradition, many weavers have reverted back to traditional resources and methods in the production of Kākahu and Korowai.



Kāi Tahu Kaumātua, Kūkupa Tirikatene
wearing his Father's Kahu kiwi
Photo credit Te Papa Tongarewa

Kupu Hou

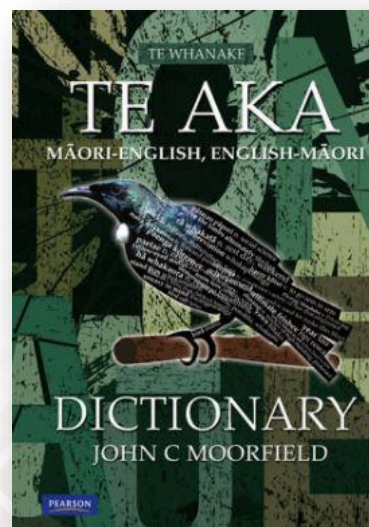
Rakinui Ranginui – Sky Father

Tohuka/Tohunga Expert

Tāniko Māori embroidery using fingers

Muka Unprepared harakeke fibre

Whītau Prepared harakeke fibre



Activities for Students:

Activities		
Listen	Y1-4	<p>Listen to Haumanu by Maisey Rika featuring Tama Waipara</p> <p>In groups discuss the meaning of the lyrics (either in Māori or English), Draw a picture to demonstrate your understanding</p> <p>https://maiseyrika.bandcamp.com/track/haumanu-ft-tama-waipara</p>
Watch	Y5-8	<p>Watch the following YouTube clips on kākahu and korowai</p> <ul style="list-style-type: none"> - A Cape of Stars (Tales from Te Papa) https://www.youtube.com/watch?v=XkPrB7H6w9s - Kahu Ora - Traditional korowai exhibition at Te Papa https://www.youtube.com/watch?v=jXa5AvsYnfs - Identifying Feathers in Kākahu https://www.youtube.com/watch?v=belqYq2An4k <p>Consider:</p> <ul style="list-style-type: none"> • The comparisons between Kākahu / Korowai and fine Western garments • How Kākahu and korowai are made • What resources you would need to make a kākahu; when and where you would gather them
Read	Y5-8	<p>Read “Korowai style of cloak” https://collections.tepapa.govt.nz/topic/3634 and ‘Kahu huruhuru style of cloak’ https://collections.tepapa.govt.nz/topic/3633</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What is a Korowai and where does the name come from? • How does a korowai get its name? • What are Kahu huruhuru and why are they special? • What is the traditional significance of birds? • What other types of kākahu [feathered cloaks] are there?

Write	Y5-8	<p><i>From watching the above clips:</i></p> <ul style="list-style-type: none"> • <i>Write a story about a kākahu/feathered cloak. Think about who will read your story, ensuring they have enough detail to understand what you are telling them. Your story can be a storybook, a newspaper story or even a comic strip.</i> • <i>Somethings you could in your story:</i> <ul style="list-style-type: none"> - <i>why was it made and for who?</i> - <i>where is it used?</i> - <i>what patterns have you used?</i> - <i>what materials were used?</i>
Tell	Y5-8	<p><i>In groups or individually, using the information gained from the video, star information and reading material design and make a kākahu that tells a story. It can be a true story or one you make up. You can either draw your kākahu OR make one using craft and natural resources you source. Upon completion present back to your class.</i></p>

LESSON 6: TUKUTUKU

Ka mahi ngā kanohi tīkonga a Matariki
The ever alert and protruding eyes of Matariki
Said of a person who is alert and wakeful particularly at night.

Background Information:

The appearance of Puaka and Matariki foretell the time of the **Whare Wānaka/Wānanga** or schools of higher learning. While most weaving was conducted throughout the year, the time of Matariki was a time when the focus turned to more specialised weaving. **Tukutuku** was a weaving discipline that could be undertaken all year. Traditionally it was undertaken when a **Whare Tipuna** was constructed. In more recent times tukutuku is used to decorate modern buildings from Universities and Schools to Government and Corporate buildings.

Te Whakapapa o Tukutuku

Oral traditions recall that following the separation of Rakinui and Papatūānuku it was **Te Whānau Mārama** who brought light into the world. From the union of Tangotango (the great darkness) and Wainui (the great expanse of water) came their six children who each brought a special light to the world.

Tangotango built a great Whare/house call Hui-te-Rakiora / Hui-te-Rangiora in the heavens within which he places his children for safe keeping.

The stars he placed on the walls where they formed patterns. It is said that the **kōwhiri** represents the stars that hung on the walls. Sometime later Tāne came and collected the stars, placing them into the heavens. It was then he fell in love with Hinerauāmoa and from their union comes Hine-te-iwaiwa, known to some as Hina, who is associated with **Te Whare Pora**.

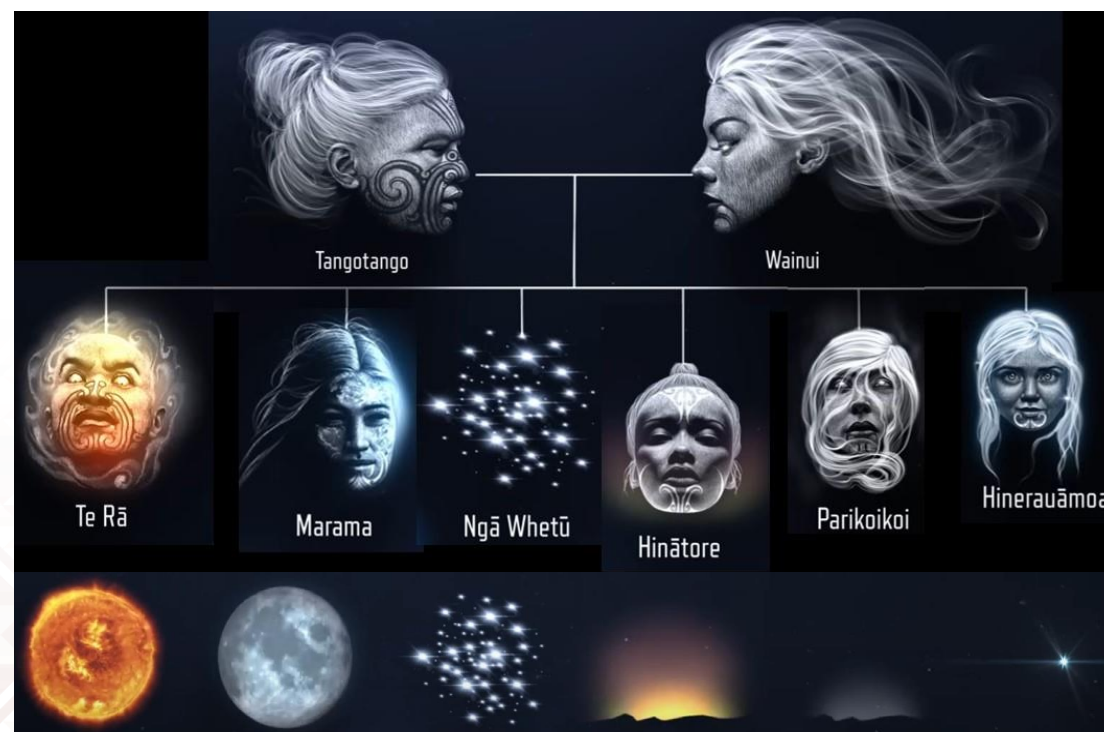


Photo Credits: Living by the Stars

Te Tohu o Mānawatia a Matariki



With the establishment of an official public holiday in 2022 recognising the Māori New Year, this **tohu** was created by Tyrone Ohia (Ngāti Pukenga, Ngāi te Rangi). Representing the kōwhiri of the tukutuku, they are symbolic of the stars that hung in Hui-te-Rakiora/Hui-te-Rangiora. Each kōwhiri has a specific colour linked to the theme of each specific star within the star cluster of Matariki.

Matariki (the mother) is white/black, Pōhutukawa is red, Tipuānuku is brown, Tipuārangi is green, Waitī is light blue, Waitā is dark blue, Waipunarangi is purple, Ururangi is grey and Hiwa-te-rangi is yellow

In 2025 Puaka/Puanga has been added to the '**mānawatia**' kaupapa to acknowledge the mana this star also has for some iwi farewelling the old year and welcoming the new year. While the ceremonies are similar there are subtle differences in what and how they are carried out.



Orokohanga

Tukutuku came to **Aotearoa** and **Te Waipounamu** from the Pacific as binding techniques used to build **waka** and **whare**. Many of these bindings are still used today to build tradition **waka** and **whare**. The picture to the right shows some of the decorative bindings used in Samoan **fale**.

Similar bindings are used to make basic panels that create separate areas within the **fale**. These traditional room separation panels became the basis of what was to later become what we know today as Māori **tukutuku** panels.



Lashings of the Fale Pasifika,
Auckland University

Te Kunenga



As in the Pacific, **tukutuku** evolved over time beginning first as basic wall bindings, then becoming highly skilled decorative patterning. Weavers began using single or double cross stitches to produce patterns based on their environment and oral traditions. Traditionally **tukutuku** stood between **poupou**. The patterns created on each panel were used to enhance and/or support the story relating to the **poupou**. In some whare the practice was to use **whāriki** on the walls in place of **tukutuku** reserving **tukutuku** for only the **Whare Tipuna** and other such important buildings. This adaption is still practiced today and can be seen in **wharenuī** such as Ihenga, Tangatarua Marae, Mokoia.

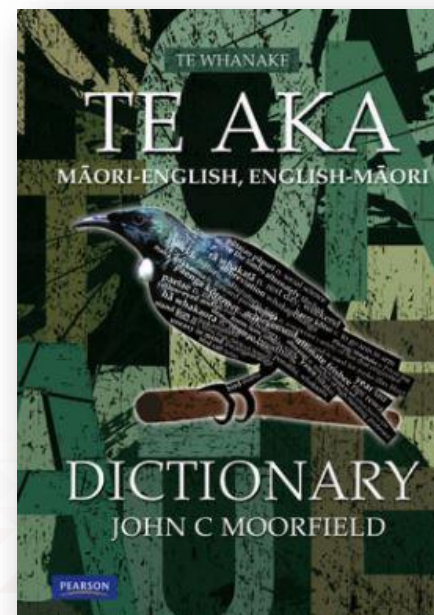
portengaround [CC BY-SA 2.0
(<https://creativecommons.org/licenses/by-sa/2.0/>)],
via Wikimedia Commons

As Western Society influences began to appear in **tukutuku** patterns. Figures of people including **Pākehā** began to appear in patterns along with words and Western symbols like ships, religious imagery and iconography. At the end of the 19th and beginning of the 20th Centuries tukutuku was replaced by paintings in many Whare built by Ringatū. Like the tukutuku they replace, these paintings enhance and/or support the story relating to the poupou they stand beside.

As time has passed tukutuku have evolved from basic wall panels to highly sort after art pieces.



Whare Wānaka / Wānanga	<i>Higher Schools of Learning.</i>
Tukutuku	<i>A series of stitches used to produce patterned lattice panels.</i>
Whare Tipuna / Wharenui	<i>Ancestral House.</i>
Te Whānau Mārama	<i>The family of light</i>
Kōwhiri	<i>Cross stitch</i>
Te Whare Pora	<i>The house of [Māori] Weaving</i>
Tohu	<i>Sign / logo</i>
Mānawatia	<i>celebrate</i>
Orokohanga	<i>Origins</i>
Aotearoa / Te Waipounamu	<i>North Island / South Island</i>
Waka	<i>Canoe</i>
Whare	<i>House – Māori</i>
Fale	<i>House – Samoan</i>
Poupou	<i>Carved posts</i>
Pākehā	<i>White person/Western</i>
Rauemi	<i>Resources</i>
Kākaho toetoe	<i>Stalks of a native rush plants</i>
Harakeke	<i>A form of New Zealand flax</i>
Kiekie	<i>A native vine plant</i>
Pingao	<i>A native sedge grass</i>
Rarauhe	<i>Bracken</i>



Activities for students

Activities		
Listen	Y1-3	<p>Listen to “weaving tukutuku” by Kelly Johnston</p> <p>In groups think about other places you can use tukutuku – draw or paint your own tukutuku panel</p> <p>http://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-55-Level-2-2017/Weaving-Tukutuku</p>
Watch	Y4-6	<p>Download the NZ Maths work sheet and work through the tasks http://nzmaths.co.nz/sites/default/files/TukutukuPatterns.pdf</p> <p>Consider:</p> <ul style="list-style-type: none"> - What other patterns can you make? - What other uses are there for the tukutuku stitch?
Read	Activity 1 Y5-6	<p>Read “Pūawaitanga o te Ringa – Fruits of our busy hands” on the Christchurch City Libraries website</p> <p>http://christchurchcitylibraries.com/Maori/Puawaitanga/Tukutuku/</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What cross stitch patterns have they used and from • What is the significance of Tūmatakahuki? • What materials can you use to make Tukutuku?
	Activity 2 Y7-8	<p>Design and make an individual A4 tukutuku panel</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What materials will you use and why? • How will you construct it? • Why have you chosen this pattern?
Design	Activity 1 Y5-6	<p>From reading “Pūawaitanga o te Ringa”:</p> <ul style="list-style-type: none"> • Design a class tukutuku panel
	Activity 2 Y7-8	<p>From reading “Pūawaitanga o te Ringa”:</p> <ul style="list-style-type: none"> • Complete a class tukutuku panel
Tell	Y6-8	<p>Research the origins of tukutuku and present a report back to your class.</p>

LESSON 7: KĀ WHETŪ HERI KAI – MAHIKA KAI

Ngā kai a Matariki nāna i ao ake i runga

Matariki scoops up the food

By the time Matariki comes into the sky you must have finished the preserving of food

Background Information:

Puaka and Matariki are the stars that foretell the prosperity of the growing season of the coming year. All harvesting and preserving of the summer crops should be completed before they appear. The cold months were traditionally the time of the Whare Wānanga, the schools of learning. Understanding the stars, the environment and man's connection to it, ensured survival of the individual and their whānau.

Kai hau kai



Tuna on a whata at Wairewa
Photo courtesy Iaeen Cranwell

Traditionally each rohe was known for its specialised mahika kai. At Rapaki it is pioke, Ōnuku it is hoka, Wairewa it is tuna & hapuka and Koukourārata it is tuaki & kuku. Each hapū and whānau had their special places where they practised sustainable harvesting and cultivation. When whānau went to collect kaimoana they would ensure they collected enough for the kaumātua and the sick people of the Pā.

The practice of kai hau kai, a form of barter operated between each rohe. At particular times of the year the marae would come together for kai hau kai, the celebration of Puaka and Matariki was most likely one such time.

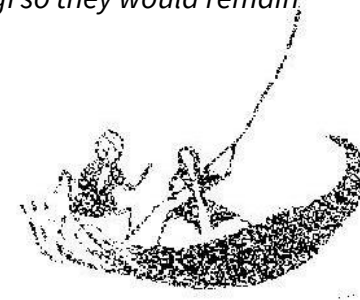
Mokihi or mogi are normally raupō watercrafts used to traverse the waterways. The use of mogi as a mode of formal transport concluded in 1956 with the opening of the Glenavy Bridge across the Waitaki. Mokihi were rough and ready raft like waka made normally from raupō but when that wasn't available korari were used. Mokihi were used to transport people and goods from one place to another.



Mokihi – Te Mauri in the Wharetoi at Te Matatini 2015
Photo courtesy Maatakiwi Wakefield

Used on rivers or lakes they were used by Ngāi Tūāhuriri to hunt **Whio** and **Pārerā** on the Waimakariri and other rivers, by stringing a net between two mogi and slowly guiding the ducks to land where a hunting party was waiting for them. Because of their buoyancy, mogi would never remain capsized. If they were to flip over, they would naturally flip right side up. For this reason, young children were tied to the mogi so they would remain safe should the mogi tip over during the journey.

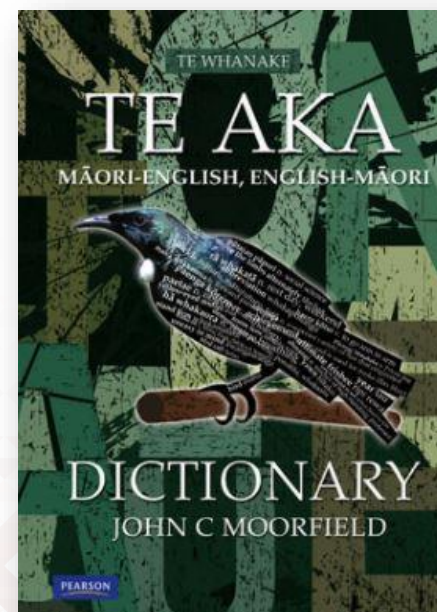
Forms of mogi were made throughout the world. The Canterbury Museum holds an Egyptian mogi dated back to 700BC. It is believed the “reed basket” baby Moses was placed in was an Egyptian mogi. Mogi are still made today by first nations people of San Francisco and South America. The revival of **ruru mogi** or making of mogi was instigated by Tim Te Maiharoa of Moeraki in the late 1980’s at Puketeraki, North Otago and these watercraft are still made today.



Traditional South Island rock art depicting a mogi in use

Kupu Hou

Mahika kai	<i>Traditional place / resource</i>
Pioke	<i>Spiny dogfish / Lemon fish</i>
Hoka	<i>Red Cod</i>
Tuna	<i>Eel</i>
Hapuka	<i>Grouper</i>
Tuaki	<i>Cockle</i>
Kuku	<i>Mussel</i>
Hapū	<i>Sub-tribe</i>
Kai hau kai	<i>Food Festival</i>
Mokihi / mogi	<i>Raupō raft / watercraft</i>
Ruru mogi	<i>To make a mogi</i>
Raupō	<i>Bulrush reed</i>
Waitaki	<i>South Island River</i>
Waka	<i>Boat</i>
Korari	<i>Harakeke flower stalk</i>



Activities for students

Activities		
Listen	Y1-3	<p>Listen to Maisey Rika – Tangaroa Whakamautai</p> <p>In groups consider what the warning is that the whales are trying to give us – demonstrate this in a drawing or painting</p> <p>https://maiseyrika.bandcamp.com/track/tangaroa-whakamautai</p>
Watch	Y4-6	<p>Watch Ngāi Tahu Mahinga Kai episodes on mokihi, tuna and tuaki http://ngaitahu.iwi.nz/culture/mahinga-kai/</p> <p>Consider:</p> <ul style="list-style-type: none"> - What months are kanakana and tuna harvested? - What months are the best for making mokihi? - What ways do the whānau in the videos look after their environments?
Read	Activity 1 Y5-6	<p>Read “Nana’s Koha” by Tunney McFadden</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What things do Raniera’s Nana identify as important to the ecology of the seashore? • What is pingao? And why is it important to the seashore?
	Activity 2 Y7-8	<p>Read “Principles of Protection Wai Care in Action” p47 from “Working with Treaty Principles at School” by Susan Battye and Edith Chaney</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What does Wai care do? • Why is their work so important? • How can you class / School do similar activities here in Christchurch?
Write	Activity 1 Y5-6	<p>From watching the videos and reading “Nana’s Koha”:</p> <ul style="list-style-type: none"> • write a plan that you and your class can use to help protect our environment
	Activity 2 Y7-8	<p>From reading “Principles of Protection Wai Care in Action”</p> <ul style="list-style-type: none"> • Complete activities from page 49 to 51
Tell	Y6-8	<p>Research how the stars (and planets) were used for telling the tides and present a report back to your class.</p>

LESSON 8: MANU TUKUTUKU

Te ope o te rua Matariki

The company from the cavern of Matariki

A company of extraordinary people, leaders and experts who have passed on
(Rangi Mātāmua, Matariki – the star of the year, 2017)

Background Information:

Manu Tukutuku is the generic name for Māori kites. There are many variations of manu tukutuku which have been recorded throughout time. They are found throughout the Pacific and were used as signals as well as just for fun. More recently that have become decorations or art pieces.

It is said that Tāne and Rongomātāne made the first manu tukutuku and it was Tāwhirimātea that gave the name - Manu: because it sores like a bird and tukutuku: because it is constructed using tukutuku lashings.

Manu Tukutuku

There are over 17 different styles and types of manu tukutuku recorded. They are most commonly made from **toitoi**, **raupō** and **harakeke**. But some are made from **kareao**, harakeke, **aute** and raupō.

Manu tukutuku were seen as vehicle to take messages to the heavens and were used at the rising of Matariki to take the wishes and aspirations of the people to Hiwa-i-te-rangi.

Taratahi:

The most common of manu tukutuku, it is made from toetoe, raupō, harakeke and sometimes decorated with feathers or other natural resources.

The basis of a manu taratahi is a basic triangle and the raupō is trimmed two ways, as pictured or as a straight even edge.



Manu Aute:

More commonly known as the 'bird man' made from toetoe, harakeke and aute. Manu aute were used for ceremonial purposes and used to signal significant events.

It is said that manu aute were flown along the **Tāirawhiti** from **Whangara** to **Te Matau-a-Māui** to signal to **Tahupōtiki** that his older brother had died. He returned for the **takiauē** following which he married the **pouaru** Hemo-i-te-Raki and thus the tribe of Kāi Tahu / Ngāi Tahu began.

Pākaukau:

Another stylised form of a 'bird man' kite but made from kareao, raupō and harakeke. It is not as decorated as the manu aute but still has the distinctive bird / man features.

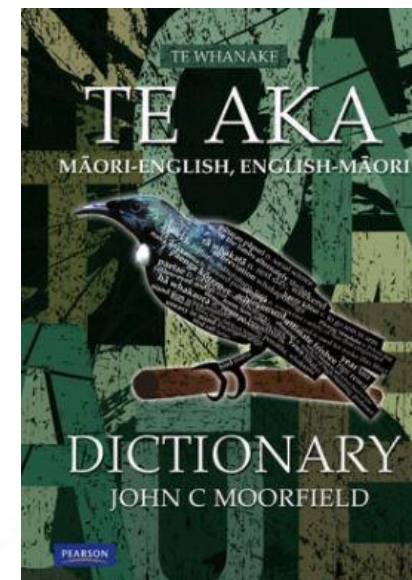
Roharoha:

A less common version of the 'bird man' kite, the roharoha is a highly woven piece. Normally it would have tightly whāriki woven coverings across the main body of the kite.

The one pictured is more decorative than functional and is symbolic rather than functional.

Kupu Hou

Manu tukutuku	General name for Māori kites
Toitoi	Native plants with long, grassy leaves with a fine edge and saw-like teeth. Flowers are white, feathery, arching plumes. Grow on sand dunes, on rocks and cliff faces, along streams and swamp edges
Raupō	Bulrush
Harakeke	New Zealand Flax
Kareao	Supplejack
Aute	Mulberry paper similar to tapa cloth
Manu Aute	A bird figurine kite using aute to cover the kite
Tairāwhiti	East Coast
Whangara	A settlement north-east of Gisborne
Te Matau-a-Māui	Hawkes Bay
Tahupōtiki	The eponymous ancestor of Kāi Tahu
Takiauē	Kāi Tahu word for funeral (Tangihanga)
Pouaru	Widow
Pākaukau	A variation of a manu aute generally made from kareao, toetoe and raupō
Roharoa	To stretch, flutter (wings) flap



Activities for students:

Activities		
Listen	Y1-2	Listen and watch Tales from Te Papa – keeping kites flying; https://www.youtube.com/watch?v=1VsWzwpXLfg In groups consider when manu tukutuku are used, draw a manu tukutuku and decorate it.
Watch	Y3-4	Watch: Tales from Te Papa – keeping kites flying; https://www.youtube.com/watch?v=1VsWzwpXLfg <ul style="list-style-type: none"> - Why are manu tukutuku so important? - What are manu tukutuku made from?
Read	Y5-8	Read “The Māori Kite’ by Bob Maysmor Key questions: <ul style="list-style-type: none"> • Explore what materials you could use to make manu tukutuku • What types of decorations and accessories can be added to your kite? (chapter 5)
Write	Y5-8	From watching the video - Tales from Te Papa – keeping kites flying; https://www.youtube.com/watch?v=1VsWzwpXLfg Write a list of manu tukutuku you and your class could make and fly <ul style="list-style-type: none"> • What other materials can you make your manu tukutuku from? • Write a short story about a manu tukutuku
Tell	Y5-8	Research more about Manu tukutuku, then design your own and present back to your class.

LESSON 9: TAONGA PUORO

Ngā kai a Matariki nāna i ao ake i runga

Matariki scoops up the food

By the time Matariki comes into the sky you must have finished the preserving of food

Background Information:

Taonga puoro mimic the natural sounds around us. They have held important roles within traditional Māori life, assisting with **karakia**, capturing birds, announcing visitors. In more contemporary times they are used in **kapa haka**, **pōhiri**, **karakia** and ceremonies. **Pūtātara** and **pūrerehua** are two *taonga puoro* that are used in Matariki ceremonies.

Pūtātara



Pūtātara (shell trumpet) are used during Matariki celebrations normally to signal the beginning and end of the ceremony however this may differ from iwi to iwi, community to community.

Traditionally made from the shell of the **Tātara** (conch) with a carved wooden lip. In more recent years, because it is very rare, the **Tātara** shell has been replaced by its Pacific cousin. These trumpets are known as '**pūmoana**'.

Ko te reo a te Pūtātara – the voice of the pūtātara:

Legend has it that when **Tāwhaki** ascended to the heavens to collect the three rocks that represent knowledge,

he blew two *pūtātara* upon reaching the 12th Heaven. The names of the *pūtātara* were **Hāururangi** (Heaven Piercing Breath) and **Rangi-Whakaaraara** (Sentry Chant of Heaven). These are the voices of the *pūtātara*.

In the **Tairāwhiti** near Hicks Bay they tell the story of fishermen hearing the sound of a woman crying as if in mourning. Her sobs could be heard very clearly. When they pulled their nets into the *waka* they found a **Tātara** shell in the nets. They attributed the sound of the sobbing to the *pūtātara* and gave it the name **Hine-mokemoke** (lonely maiden).

These are the three voices of the *pūtātara*, **Hāururangi** – piercing whalelike sounds, **Rangi-Whakaaraara** – sentry alert, **Hine-mokemoke** – melodic sob.

Pūrerehua

Pūrerehua are made from wood, bone and stone. They are an oval or diamond shape that are flat or bladelike and are swung at the end of a cord. Their voice is a low whirring sound that can be heard some distance. Like the pūtātara they are normally used in ceremonies, to accompany karakia and waiata.



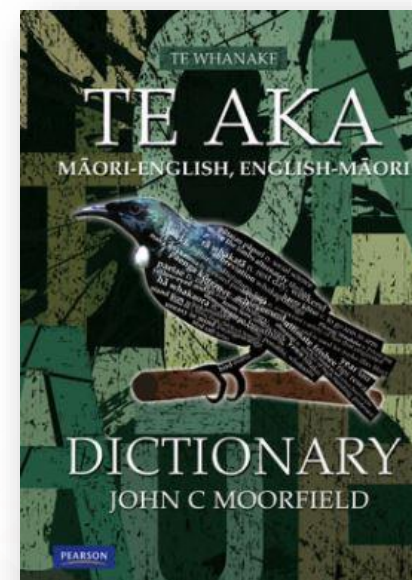
Ko te reo a te Pūrerehua – the voice of the pūrerehua:

The late Hirini Melbourne, expert in traditional Maori musical instruments notes in his book ‘Toiapiapi’, that pūrerehua were used in different ways by different iwi.

“In Ngāti Porou it was used for summoning rain, Amongst Taranaki people, several were played a times of tangihanga (funeral rites). In **Waitaha**, it was given the name ‘**hamumu inagārara**’ and was used for luring lizards. It is said that a large pūrerehua pounamu was played at dusk on **Maungakiekie** (One Tree hill) and such was its power it could be heard simultaneously in the Waitematā and Manukau harbours.



Taonga Puoro	<i>Māori musical instruments</i>
Karakia	<i>Ritual chant / a form of prayer</i>
Waiata	<i>Song</i>
Kapa haka	<i>Māori concert group</i>
Pōhiri	<i>Welcome ceremony</i>
Tātara	<i>Subspecies of a very large sea snail whose shell is used as a conch or shell trumpet</i>
Pūmoana	<i>Conch shell trumpet</i>
Tāwhaki	<i>A Māori ancestor</i>
Hāururangi	<i>Heaven Piercing Breath</i>
Rangi-Whakaaraara	<i>Sentry Chant of Heaven</i>
Hine-mokemoke	<i>Lonely Maiden</i>
Tairāwhiti	<i>East Coast</i>
Waitaha	<i>Canterbury</i>
Hamumu inagārara	<i>A Waitaha name for a pūrerehua</i>
Maungakiekie	<i>One Tree Hill</i>



Activities for students:

Activities		
Listen	Y1-2	<p>Listen to Hirini Melbourne – Haumanu</p> <p>In groups consider when taonga puoro can be used, draw a taonga puoro and decorate it.</p> <p>https://www.youtube.com/watch?v=IXFyHj7EUnE</p>
Watch	Y3-4	<p>Watch:</p> <p>Horomona Horo- pūtātara https://www.youtube.com/watch?v=got_iLKSIBY and</p> <p>Horomona Horo- purerehua https://www.youtube.com/watch?v=zw2AiR6HXZA</p> <p>Consider:</p> <ul style="list-style-type: none"> - What sounds are being produced? - How Horomona is producing them?
Read	Y5-8	<p>Read “Toiapiapi” by Hirini Melbourne</p> <p>Key questions:</p> <ul style="list-style-type: none"> • What things can we make taonga puoro from? • Why are the white sands of Pārengarenga so important?
Write	Y5-8	<p>From watching the videos and reading “Toiapiapi”</p> <ul style="list-style-type: none"> • Write a list of taonga puoro you and your class could make or collect and then learn to play
Tell	Y5-8	<p>Research more about pūrerehua or pūtātara and then design your own</p>

LESSON 10: OTHER ACTIVITIES

Ehara te hinengaro i te taha kia whakakīia ki ōna momo kai, ēngari kē he ahi me tūtakitaki kia muramura

The mind is not a gourd to be filled with water or food but a fire to be ignited

Your mind should be stimulated with things that will help it grow and develop

The following are other suggested activities your students may wish to explore:

ARTS - Visual

Share the ideas, feelings and stories communicated by their own and others objects and images.

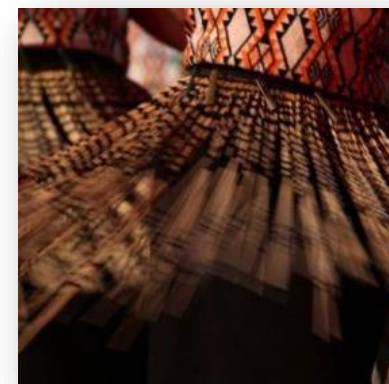
- Y1 Draw or paint a visual representation of Matariki that shows what the appearance of this constellation represents to both Māori and/or other cultures.
- Y2 Draw, paint or construct a visual representation of Matariki that shows what the appearance of this constellation represents to both Māori and other cultures
- Y3 Create a visual representation of traditional tasks or activities associated with Matariki that are occurring as Matariki rises. In small groups share your work and understanding of Matariki with each other.
- Y4 Create a painting, print or sculpture that shows what the appearance of this constellation represents to both Māori and other cultures. Peer share.

ARTS - Music

- Y5 Prepare, rehearse and present performances of music, using a range of performance skills and techniques.
- Y5 Write and present a musical piece which represents the change of season and rise of the constellation of Matariki.

ARTS - Performance

- Y6 Select and use choreographic devices, structures, processes and technology to develop and give form to dance ideas.
- Y6 Select traditional Kapahaka, or combine Kapahaka with modern dance forms, to retell a Matariki based story through dance.
- Y7 Explore how drama reflects our cultural diversity.
- Y7 Create a role play, tableau or play that highlights the different cultural interpretation of the appearance of Matariki, OR Reveals different cultural practices relating to either navigation / planting and harvesting practices.
- Y8 Script and perform a short film that communicates the growth and development of Matariki celebrations over time.



ENGLISH

Speaking, Writing and presenting

- Y1 Draw or paint a visual representation of Matariki that shows what the appearance of this constellation represents to both Māori and/or other cultures.
- Y1 Listen to a story about Matariki and then write a sentence to explain their understanding of what the story was about
- Y2 Listen to a story or piece of music about Matariki and then write a paragraph to explain their understanding of what it is or express feelings experienced whilst listening.
- Y3 Write a simple poem (acrostic, alliteration, haiku) about the appearance of Matariki in the sky and what this meant for Māori.
- Y3 Write a list of things that people could do to celebrate the appearance of Matariki.
- Y3 Write a reminder list of seasonal jobs that need to be completed by this time of year.
- Y4 Write a fictional diary entry that reveals a personal experience of Matariki celebrations or activities.

- Y4 Write a short story about Matariki.
- Y5 Write a speech on, or debate why, it is necessary to recognise the importance of Matariki traditions and practices.
- Y5 Develop a picture book or children's story which illustrates some of the traditions and practices around Matariki.
- Y6 Collect a range of Whakataukī (proverbs) around the subject of Matariki and give explanations of what they mean.
- Y6 Write and illustrate a children's picture book using a traditional Māori myth or legend around star lore or navigation as the story basis.
- Y7 Write a report on:
- Star lore and navigation
 - Traditional Matariki pastimes such as weaving.
- Y8 Script and perform a short film that communicates the growth and development of Matariki celebrations over time.

DANCE

- Y3 Prepare and share dance movements individually and in pairs, or groups.
- Y3 Learn a waiata about Matariki that has actions and then perform as an individual, pair or group.
- Y3 Create a dance to represent the rising of Matariki.

SCIENCE

- Y3 Investigate the components of our solar system, developing an appreciation of the distances between them.
- Y3 Map the position of key constellations, including Matariki, and include a key which gives information about the distances between the constellations, or create an appropriate scale and position the constellations accurately.
- Y3 Create a lifecycle for a star that identifies the characteristics that a star has at each phase of its life.
- Y4 Investigate the cycle of water.
- Y5 Create a lifecycle of a drop of rainwater.
- Y7 Explain the nature and lifecycles of different types of stars in terms of energy changes and time.
- Y7 Research the constellation of Matariki and identify its current status in terms of star life cycles (include such information as star ages, distances from Earth and other constellations etc.)

SOCIAL STUDIES

- Y3 Understand how cultural practices vary but reflect similar purposes.
- Y3 Compare stories from around Aotearoa, Te Waipounamu and the wider Pacific region about Matariki. Describe the similarities and differences.
- Y3 Draw a Venn diagram that shows the similarities and differences between celebrations that occur around the appearance of Matariki or Pleiades.
- Y3 Compare international stories or traditions about the appearance of Matariki or Pleiades constellation.
- Y4 Understand how people pass on and sustain culture and heritage for different reasons and that this has consequences for people.
- Y4 Using a Venn diagram compare and contrast cultural practices that occur around the appearance of Matariki, for example, Completion of Food gathering / celebrations/ wānanga.
- Y4 Create a timeline noting the different planting and gathering activities for Māori during the Lunar month.
- Y5 Understand how cultural interactions impact on cultures and societies.
- Y5 Investigate whether non-Māori cultures have adopted traditions and practices surrounding Matariki and describe how this has been of benefit.
- Y6 Understand that natural and cultural environments have particular characteristics and how environments are shaped by processes that create spatial patterns.
- Y6 Create a map that spatially identifies which Pacific cultures have used the “Matariki*” star cluster as a basis for their own myths, legends or traditional practices. (*The star cluster may be referred to by a different name)
- Y6 In pairs, research countries in the Pacific that observe Matariki (or the Pleiades) e.g. Japan, Samoa, Hawai’i, Fiji and Aotearoa and add this information into Google maps.
- Y7 Understand how people’s perceptions of and interactions with natural and cultural environments differ and have changed over time.
- Y7 Explore how celebrations associated with Matariki in New Zealand have experienced changing levels of interest/popularity over time, giving reasons for possible trends.
- Y8 Understand how people’s perceptions of and interactions with natural and cultural environments differ, and have changed over time.
- Y8 Explore how celebrations associated with Matariki in New Zealand have experienced changing levels of interest/popularity over time. Give consideration to whether trends are a result of social or political forces.

RESOURCES:

CHRISTCHURCH CITY LIBRARIES

Me tīmata rawa mai koe i te take e eke ai koe ki te tihi o te maunga.

To reach the pinnacle of a mountain, you must start at its base.

By the time Matariki comes into the sky you must have finished the preserving of food

Ngā Rauemi Pukapuka / Books

The following are a selection from the Matariki booklist on our website prepared by our Poukohikohinga Māori (Māori Resource Librarian).

Children's Fiction – Te Reo Māori

- *Tirama, Tirama Whetū Riki E* by Renee Chin rāua ko Piripi Walker
- *Ko Flit te Tīrairaka me te Mahere Matariki Nā Kat Quin* rāua ko Pānia Papa
- *Te Huihui o Matariki* by Toni Rolleston-Cummins

Children's Fiction

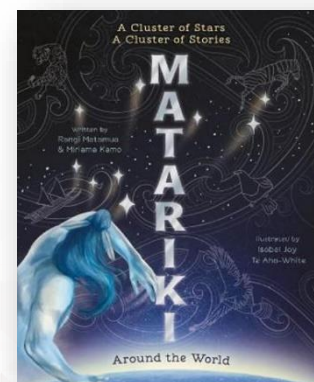
- *Matariki Around the World* by Rangi Mātāmua and Miri
- *The Stolen Stars of Matariki* by Miriama Kamo
- *Tāwhirimātea – a song for Matariki* by June Pitman-Hayes
- *The Little Kiwi's Matariki* by Nikki Slade-Robinson

Children's Non-Fiction

- *Celebrating Matariki* by Libby Hakaraia

Children's Non-Fiction – Te Reo Māori

- *Hine Takurua*
- *He aha te hua o Matariki* by Peti Nohotima



Non-Fiction

- *Matariki: The Star of the Year* by Rangi Matamua
- *Te Kāhui o Matariki – contemporary Māori Art for Matariki* by Libby Hakaraia
- *The Astronomical Knowledge of the Māori genuine and empirical* by Elsdon Best
- *Puanga: Star of the Māori New Year* by Sam Rerekura

Matariki: *Matariki around the world – a cluster of stars, a cluster of stories* by Rangi Mātāmua

Pōhutukawa: *How my koro became a star / Kua wheturangitia a koro* by Brianne Te Paa

Tupuānuku: *The kai stars of Matariki / Ngā whetū kai a Matariki* by Miriama Kamo

Tupuārangi: *Ruru Night hunter* by Katie Furze

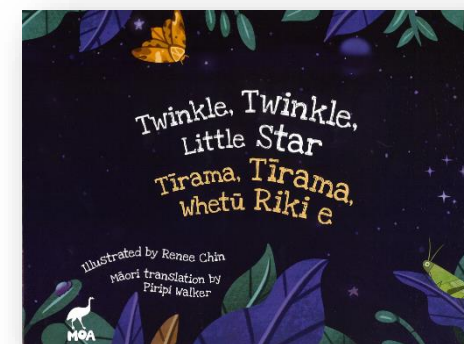
Waitā: *The twin stars of Matariki – Waitī & Waitā / Ngā whetū takirua o Matariki ko Waitī me Waitā* by Miriama Kamo

Waitī: *Tuna rāua ko Hiriwa* by Ripeka Takotowai Goddard / *Up the river* by Gillian Candler

Waipuna-ā-rangi: *Taka ki rō wai – he kōrero pūrākau mō tētahi hoiho* by Keri Kaa

Ururangi: *Ko Tāwhiri au / I am Tāwhiri* by Ron Bacon

Hiwa-i-te-Rangi: *The stolen stars of Matariki* by Miriama Kamo

**Ngā Rauemi Ipurangi / Internet Resources:**

Te iwa o Matariki: <https://matariki.twoa.ac.nz/>

Matariki – he kōrero onamata: <http://teaohou.natlib.govt.nz/journals/teaohou/issue/Mao61TeA/c6.html>

Matariki Activity: <https://www.twoa.ac.nz/landing/Te-Iwa-o-Matariki-colouring-and-activity-book>

Matariki – more than a sign: <https://www.whakapapafridays.co.nz/single-post/2016/06/03/Matariki-More-than-a-sign-of-the-M%C4%81ori-new-year>

The Matariki Collection: <https://www.nzonscreen.com/collection/the-matariki-collection>

Pleiades in Folklore & Literature:	http://en.wikipedia.org/wiki/Pleiades_in_folklore_and_literature
WATCH: The story of Matatiki:	https://www.youtube.com/watch?v=VGv6ED9U3t4
WAIATA: He waiata Matariki:	https://www.youtube.com/watch?v=syMAtXXzfPw
KAPAHAKA: Tū te Manawa Mauria	https://www.youtube.com/watch?v=-OC56xPIYd8
Matariki Holiday information	https://www.parliament.nz/en/get-involved/features/celebrating-matariki-as-a-public-holiday/

Puaka/Puanga:

Puanganui o te Rangi	https://www.puanganui.co.nz/
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