

Matariki

Teaching Resource

2018

Matariki nana i ao ake
Matariki has risen

TE PAPA
OUR PLACE



Matariki, *the Māori New Year,* **is a time of renewal** **and innovation.**



Matariki (Pleiades) star cluster. NASA

About this resource

Raise your students' awareness of Matariki using the rich online collections at Te Papa. You and your students can use the taonga, and hear the stories they tell, to explore the themes of renewal and innovation within Matariki.

Traditionally, the reappearance of the Matariki star cluster coincided with the end of the harvest season. Winter food stocks were plentiful, and less work was needed in the gardens. As people had time to apply their energies to other activities, a time of whakahou (renewal), whaiwhakaaro (reflection) and auaha (innovation) began. This was when hapū (kinship groups or subtribes) and whānau (close and extended family) would learn from successes or failures and think about how things could be improved for the year to come.

This resource encourages students to take time at Matariki to think about innovation, and make plans to improve their lives and enhance their communities.

This resource draws upon Te Papa's Collection Online, which is constantly being updated as more taonga (treasures, prized objects) are being digitised. From this resource students can find inspiration from taonga that connect to themes of renewal and innovation from the natural and human world.

Activities in this resource encourage connection with local communities and Mana Whenua (people who occupy the land) histories/knowledge. These connections are a rich resource for students and teachers to focus on during Matariki 2018.

This resource is designed for both early childhood and primary learners, and has cross-curricular links with Belonging/ Mana whenua, Contribution/Mana tangata, Communication/Mana reo, and Exploration/ Mana aotūroa (Te Whāriki), as well as Social Sciences, Science, Technology, and Learning Languages (New Zealand Curriculum).

Students will learn about innovations created and used by Māori, with a particular emphasis on Māori technologies designed to grow, gather, store, and cook kai (food).

There are five modules, providing you with content knowledge and practical classroom activities. You can also extend your students' reo Māori with Māori vocabulary lists. All five modules can be worked through chronologically or used as a stand-alone teaching and learning resource.

Module One	Getting started with Matariki Explore some stories and traditions of Matariki.
Module Two	Renewal and innovation at Matariki Investigate the themes of renewal and innovation.
Module Three	Growing and gathering kai Learn how Māori used the natural world to make innovative tools for hunting, fishing, eeling, and cultivating crops.
Module Four	Storing kai Discover the innovative ways that Māori stored food.
Module Five	Cooking and eating kai Learn about hāngī, and bring your school whānau together to share kai, and new learning about Matariki.



From the series: Ratana Pa, 1976, by John Miller. Purchased 2002. Te Papa (O.027023)

Module 1 – Getting started with Matariki

Explore some stories and traditions of Matariki.

Ka puta Matariki ka rere Whānui.

Ko te tohu tēnā o te tau e!

Matariki reappears, Vega starts its flight.*

The new year begins!

Background information

Matariki signals the Māori New Year. It is a time of renewal and celebration in New Zealand that begins with the rising of the Matariki star cluster (Pleiades or Seven Sisters).

Traditionally, festivities were conducted to celebrate Matariki, following the harvesting of crops when the pātaka (food storehouses) were full, freeing up time for family and leisure. These festivities included the lighting of ritual fires, the making of offerings, and celebrations of various kinds to farewell the dead, to honour ancestors, and to celebrate life.

The beginning of the 21st century has seen a revival in Matariki celebrations with New Zealanders coming together to honour and celebrate this significant national event in a variety of ways.



Photograph of moon, Great Melbourne Telescope, 1 September 1873, moon age 9.0 days, by Melbourne Observatory. Te Papa (O.000014).

Text extracted from <https://www.tepapa.govt.nz/discover-collections/read-watch-play/maori/matariki-maori-new-year/what-matariki>

**The rising of the star Whānui (Vega) was looked upon as the sign for the commencement of the labour of lifting the kūmara crop*

Discover

- ▶ Watch ***Matariki and the Six Sisters***. This version of the Matariki story is significant to Ngāti Toa. Some other versions of the Matariki story are ***The Seven Stars of Matariki***, and ***A Matariki Story***.
 - Discuss why there are different stories about Matariki.
 - Find out what the Matariki story and traditions are in your local area. If local iwi or hapū are not available to help, try your local library for information.
 - Record students telling the local story. You might like to use digital apps, like **Voicethread** or iMovie.
- ▶ Sing this **Matariki waiata** to learn the names of the seven stars of Matariki.
- ▶ Use this **pukapuka** (book) to reinforce learning and bring more te reo Māori into the classroom.

From the collection:

A pūtātara (shell trumpet) is one instrument used to signal the start of Matariki. View **this pūtātara** from the Taonga Māori Collection at Te Papa. Play the **sound of the pūtātara** to signal the start of Matariki.

- ▶ Use materials found in the school or at home to make your own musical instrument, to signal the start of Matariki.

Explore

- ▶ Learn more about the Matariki constellation and other winter stars:
 - Read **Matariki Star Facts** and create a quiz for whānau and friends. You might like to use **Kahoot!** for this.
 - Use the free software **Stellarium** to find the best date and time for your students to go Matariki hunting.
 - Create a Matariki star cluster card. Cut a round of cardboard and punch out the holes of the seven stars with the names of the stars written beside the holes. Then shine a torch behind the holes onto a flat surface.
 - Some iwi use the appearance of the star **Puanga/Puaka** (Rigel) as the signal for the Māori New Year. Read this **journal article** to find out more.
- ▶ There are many picture books available in your school or public library that tell of whānau celebrating Matariki. How do you celebrate Matariki with your own whānau? Invite Māori whānau into school to share their Matariki stories and traditions.
- ▶ Matariki is a time for reflection on the past year as well as planning for the future. Ask students to create an image to show a memory from the past year and share with classmates. Ask students to write down a goal for the coming year on a star shape and create a class display.
- ▶ Look at other forms of sound/instruments that signal the commencing of things, such as the school bell, desktop startup window, bells, or chimes. Designate an instrument of particular sound connected to an action or commencement of something – like your Matariki lessons/activities.

Innovate**From the collection:**

The Matariki constellation is a source of inspiration for many contemporary Māori artists. View the following exhibits from the Taonga Māori Collection at Te Papa to see how traditional art forms are being continued and how the Matariki stars have been depicted:

- **A Cape of Stars woven by Kohai Grace**
 - **Matariki Tukutuku panel by Sonia Snowdon**
 - **Kete Whakairo – Tatai Whetu ki te Rangi by Sonia Snowdon**
- Find an image in Te Papa's Collections Online that represents the more traditional form of this more contemporary art.
- Consider ways that you can celebrate Matariki with your class and whānau. Work together to plan a class event.
- Use the collection items above as inspiration for your own Matariki artwork.
 - Set up stations around the room – this would work really well in a collaborative learning setting. Students can work with whānau to:
 - **weave their own stars**
 - **paint** or **weave** tukutuku panels
 - practise weaving paper or harakeke and make basic kete – for something different, weave together two photocopied or drawn images, using two A3 sized pieces of paper cut into strips
 - have a digital space where Matariki art can be **created digitally**.

Kupu hou – New words

auaha | *innovation*

kete | *basket, kit*

Matariki | *Pleiades or Seven Sisters*

pātaka | *food storehouses*

Puanga/Puaka | *Rigel, the seventh brightest star in the sky*

pukapuka | *book*

pūtātara | *shell trumpet*

tukutuku | *ornamental woven lattice-work – used particularly between carvings around the walls of meeting houses*

waiata | *song, to sing*

whaiwhakaaro | *reflection*

whakahou | *renewal*

whakairo | *a carving, to carve*

Module 2 – Renewal and innovation at Matariki

Investigate the themes of renewal and innovation.

Background information

Matariki is traditionally a time of renewal – for nature, and for the wairua (spirit) of the people. It is also a time for innovation, an opportunity to learn from successes and failures and think about how things can be improved for the year to come.



Matariki Breakfast, 2015. Photograph by Michael Hall. Te Papa (23719)

Innovation often requires an element of renewal, as traditional technologies and materials are enhanced, or used in new ways. As time, technologies and needs shift and change, new problems arise that require innovative solutions.

Whakapapa (genealogy) and creation stories contain fundamental lessons about the complex human connection to the natural world. These understandings and connections are passed on to future generations. They represent ‘renewal’ for the teller, reminding themselves and those they share their knowledge with about where they come from.

The natural, human and spiritual world are in a constant state of renewal. As you and your students explore the collections, learn about the whakapapa of a taonga in the Te Papa collection, especially taonga that come from iwi. Talk about being a kaitiaki (guardian) of the objects, and who the kaitiaki are. Explore the role of museums as kaitiaki of taonga.

Discover	Explore	Innovate
<p>▶ Matariki is a time to look to the future and to the health and wellbeing of our communities. Look to your own communities at this time, and discuss renewal and innovation.</p> <p>This could be in:</p> <ul style="list-style-type: none"> • revegetation and health of local ecosystems, especially waterways and wetlands • the renewal and revitalisation of te reo Māori • a renewal of ties with the school community and local hapū and iwi • a renewal of understanding local Māori knowledge and tikanga. <p>▶ Students can:</p> <ul style="list-style-type: none"> • look to their local environment for Māori place names and research how they got those names • contact local marae to invite a member to come into the school and share what the local connections are, and how they celebrate Matariki • renew te reo Māori and tikanga within your school or centre by creating innovative ways to include these aspects in your day-to-day practices • visit an area of bush or conservation land that is being renewed, or find out about local rāhui and why they exist (if there is no bush or conservation land nearby, choose an area of your playground to renew). 	<p>In some Māori traditions, the growth of a seed is described in a list that traces the movement from shoot to root. Whakapapa such as this record how life is constantly being renewed – through birth, the natural regeneration of forests and fisheries, and the fertility of grown crops. In order to sustain this whakapapa, hunting and gathering practices must be sustainable.</p> <p>▶ Watch the three episodes of <i>The History of Kai</i>:</p> <p>Timeline of 'Kai' from pre-European times to the 21st century diet (Waka Huia), Part 1 Part 2 Part 3</p> <p>▶ Create whakapapa for some of the food items featured.</p> <p>From the collection: Koru are a symbol of renewal and creation and are inspired by the shape of a new fern frond. There are many examples of koru in traditional and modern Aotearoa New Zealand icons.</p> <p>▶ Look for both traditional and more modern representations of koru in Te Papa's Collections Online. Traditional koru will be found in other searches like <i>kōwhaiwhai</i> and objects that are associated with this form such as <i>heke</i> and <i>hoe</i> (paddle).</p> <p>Younger students can:</p> <ul style="list-style-type: none"> • categorise these images into 'traditional' and 'contemporary', or the materials they are made from • practise drawing koru, making them from playdough or clay, and creating string or glue prints • make statements about their work in te reo Māori. <p>▶ Older students can move away from simple depictions of koru.</p> <ul style="list-style-type: none"> • Look at how koru have been appropriated, and try to whakapapa those collection items that have their iwi affiliations recorded. • Sort koru designs into traditional and contemporary. Can you think of logos or designs that use the koru? • How has the koru been renewed and innovated upon for these items? Has this changed the koru in any way? <p>▶ Look to taonga like the Tino Rangatiranga flag, or Buck Nin's Ko wai te waka e kau mai nei for examples of koru that represent cultural renewal stories.</p>	<p>▶ Create a space for reflection and renewal in your school, using renewable resources, plants and sculpture to enhance the space. You could create a soundscape that plays while people are in there, like that created recently for the Rongowhakaata iwi exhibition. Talk to school leaders about incorporating the space into behaviour management policies, as a safe space students can go to 'renew' their mood.</p> <p>▶ Invite your school kaumātua (elder) and the community to share in a school blessing of the space.</p>

Discover

- ▶ Listen to the story of Māui-tikitiki-a-Taranga and the taming of the sun.
- ▶ Create a retelling of the story for a school or community audience.
 - Younger students may want to use finger puppets or stick puppets or act it out.
 - Older students may want to create a digital version, using apps like **Smoovie**, **Stop Motion Animator**, **Lego Movie Maker** or **Picpac**.
- ▶ Was Māui the first Māori innovator? Māui has the characteristics of someone who is disruptive, who sees a need, who brings change and development to their community – whether that is by capturing the sun, entering the underworld, or fishing up an island. In what ways did Māui innovate?
- ▶ An innovator needs to show creativity, tenacity, curiosity, and work through a cyclic process of:
 - whakatōhenehene (disruption)
 - kōrero (talking)
 - whakarongo (listening)
 - wānanga (gatherings to learn or forums)
 - uiui (questioning)
 - whakamātau (testing)

Look back again at the retelling of Māui and the Sun you created. How did Māui show these processes?

- ▶ Use the story of Māui as a way to introduce the concepts of innovation to the class. Create a class definition, and set up an innovation wall in the classroom, or a class **Padlet**. Have it easily accessible to everyone so that it can be added to at any time. Use it to identify and label examples of innovation in literature, world events, and real life situations, as they arise in other learning. This wall will help to establish working models of innovation that you can use to gather information and make comparisons. Find local examples of innovation to add to the wall or Padlet.

Explore

From the collection:

Te Papa's wharenuī whakairo (carved meeting house), **Te Hono ki Hawaiki** (Dr Cliff Whiting, 1997), includes the traditional story of Māui taming the sun, which is depicted in a carving on the maihi (arms) of the wharenuī.

The design and methods used by Whiting were innovative and previously unheard of. Whiting asked students to help with the carving of the wharenuī, and used customwood to make these carvings. Customwood is a non-traditional material, which could be steamed to create curves and layers of three-dimensional figures. Similarly innovative was the colour scheme for the meeting house.



Te Hono ki Hawaiki, 2009. Photograph by Norm Heke. Te Papa (79634)

- ▶ Look at images of Te Hono ki Hawaiki.
 - Younger students:
 - Note what you see, what you recognise from your own life, and make comparisons with Te Papa's other wharenuī, Te Hau-ki-Tūranga.
 - What parts of traditional wharenuī have been renewed and innovated?
 - Older students:
 - Create a timeline of innovation in carving and the presentation of wharenuī whakairo across the country.
- ▶ Look to wharenuī on local marae. What is the relationship between the two wharenuī at Te Papa, wharenuī such as **Rongopai** or the Ngāi Tahu marae **Te Rau Aroha**, and wharenuī in your local area? In what ways do these examples show renewal and innovation?
- ▶ Investigate the story of Te Hau-ki-Tūranga, and the way that has been pivotal in renewing conversations about Māori taonga and museums. Debate, write opinion pieces, or write blog posts about how museums and Māori are innovating on ways to display, **repatriate** and be kaitiaki (guardians) to taonga.

Innovate

Work with your class, and local whānau, to create a meeting place at your school for Matariki. Use it as a space for kōrero, speeches, storytelling, waiata and craft. Have it as comfortable and welcoming as possible. Use the example of **Te Hono ki Hawaiki** in creating a predominantly Māori space that has elements of other community cultures featured too.

Here are some suggested activities:

- ▶ Plan your wharenuī in miniature first using materials in a makerspace, like playing cards, patterned cardboard, sticks, or builders paper.
- ▶ Look to the **patterning** of either of the wharenuī in Te Papa, or a local example. Include some traditional patterns, but innovate and create whakairo patterns with your own meanings too.
- ▶ Carve in salt dough, clay or soap, or create moulds for plaster of Paris.
- ▶ Create a digital wharenuī, and project it onto the walls of your space.
- ▶ Use photographs, or prints, instead of 3D carving.
- ▶ Open your new space with a blessing.

Kupu hou – New words

heke | a rafter

hoe | paddle

kaitiaki | guardians

kaumātua | elder

kōrero | talking

maihi | arms

uiui | questioning

wairua | spirit

wānanga | gatherings to learn or forums

whakairo | a carving, to carve

whakamātau | testing

whakapapa | genealogy

whakarongo | listening

whakatōhenehene | disruption

wharenuī whakairo | carved meeting house

Module 3 – Growing and gathering kai

Learn how early Māori used the natural world to make innovative tools for hunting, fishing, eeling, and cultivating crops.

Ngā kai a Matariki, nāna i ao ake ki runga.

The foods of Matariki, gathered up by her.



Māori women tīmo gardening. Photographed by Mr Charles Lindsay. Te Papa (MA_A.000002)

Text extracted from
<https://www.tepapa.govt.nz/discover-collections/read-watch-play/maori/traditional-maori-food-gathering>

Background information

Matariki is sometimes referred to as the 'season of food'. It is a time when the kūmara (sweet potato) is planted, crops have been harvested, preserved food is plentiful, and the fish are migrating.

The Matariki cluster played a significant role in determining when to plant kūmara. Clear, bright stars indicated a good season. But if the stars were hazy and bunched together, a cold winter was predicted, and planting was delayed.

For Māori living on the coast, Matariki marked a good time to dive for kina (sea egg) and to gather mussels and other kaimoana (seafood).

Early Māori used natural resources to make innovative tools for cultivating crops, hunting, fishing, and eeling.

- Various types of wood were used for making waka kererū (wood pigeon snares), paepae kiore (rat snares), and gardening tools.
- Aka (supplejack) was used to make hīnaki (eel pots) and tāruke (crayfish pots).
- The bark of trees such as mānuka formed part of snares.
- Harakeke (flax) was used for bindings, and for ropes and cord for fishing lines and nets.
- Bird and whale bones were made into matau (fishhooks) and mākoī (spear points).

When metal tools and the gun arrived, many traditional food-gathering methods and tools changed.

Today Māori play an important role in New Zealand's food industry with many iwi running highly successful food companies, growing and gathering food in contemporary ways.

Discover

- ▶ Invite a kaumātua to talk about how brightly the Matariki constellation is shining this year. Is the forecast for a good season or a cold winter?

From the collection:

- ▶ View and discuss a range of traditional tools used by early Māori for gardening, hunting, and fishing:
 - **Ko** (digging implement)
 - **Timo** (grubber, for loosening soil)
 - **Kāheru** (digging stick)
 - **Waka kereru** (pigeon trough, snare)
 - **Pā kahawai** (trolling lure)
 - **Kupenga** (hand fishing net)
 - **Pā** (fishing lure)
 - **Kaka pōria** (bird leg ring/pendant)

Younger students

- ▶ Look at modern and traditional tools for gardening, hunting, and fishing.
 - Order them on a timeline.
 - Recreate them with found materials.
 - Describe differences and similarities.
 - Tell whānau stories about them and ask whānau if they have any stories to share.
 - Discuss how they would be used, and use the modern equivalents in a garden or local waterway.
 - Which traditional tool do you think is the most clever and why?
 - Read about the history of **kūmara** and plant your own kūmara tubers in gardens around your school.
 - Choose a **kūmara recipe** to cook.

Older students

- ▶ Explore the tikanga of hunting and gathering food in your local area. Two School Journal stories, **Mahinga Kai Crusaders** and **Kutai Fritters** give examples of traditional tikanga, and the innovative ways some of those tikanga are being kept current.
- ▶ Note the differences between traditional and contemporary food-catching methods.
- ▶ Investigate innovations in food catching and preparation.
- ▶ Create a **photo wall** to showcase examples of local, individual or community innovation, from the present or in the past.
- ▶ Look to the future – what might food growing and gathering tools look like in 50 years?

Explore

From the collection:

For Māori, innovation is often for the common good of the group, rather than individual endeavour.

- ▶ Watch Te Papa's conservators **conserve a hinaki**. Listen carefully to the message given by Rongowhakaata, as the kaitiaki of the trap.
 - In what ways does this clip show people innovating for a common good?
 - How did Rongowhakaata share their knowledge and innovation? Why did they?
 - What other eeling methods have been used by Māori and non-Māori?
 - How are eels caught today?
- ▶ Explore the methods used to make the traditional tools by inviting whānau and local iwi in to discuss the arts of carving and weaving.
- ▶ Find out about local agricultural enterprise in your local area.
 - Mark places on a map where food is grown and gathered.
 - Visit local growers, or have someone come to talk to the school. Find out what kind of technology they are using to grow and gather food. How is this similar and different to early Māori methods?
 - Find out what stage of food production local growers are at during Matariki.

Innovate

- ▶ Search Te Papa's Collections Online for **pātiti** and look through the images to find how one hapū innovated and renewed this weapon.
- ▶ Choose a traditional gardening or hunting tool used by early Māori and renew and innovate this tool for the future. Draw the tool or create a digital representation (**Tinkercad** is a good program for this) or a model of it using natural or man-made materials.

- ▶ Explore a range of contemporary Māori food businesses.

- What traditional methods, values, and technologies are being adhered to?
- What modern technologies are being used?

Possible food businesses to research:

- **Aotea Wellness Tonic**
- **Moana New Zealand**
- **Hiakai**

Kupu hou – New words

aka | *supplejack*

harakeke | *flax*

hauhake(a) | *harvested, dug up*

hīnaki | *eel pots*

kāheru | *digging stick*

kai | *food, to eat*

kaimoana | *seafood*

kaka pōria | *bird leg ring/pendant*

kina | *sea egg*

ko | *digging, implement*

kupenga | *hand fishing net*

mākoi | *spear points*

matau | *fishhooks*

pā | *fishing lure*

paepae kiore | *rat snare*

pā kahawai | *trolling lure*

tāruke | *crayfish pots*

timo | *grubber, for loosening soil*

waka kererū | *pidgon trough, snare*

Module 4 – Storing kai

Discover the innovative ways that early Māori stored food.

Ka kitea a Matariki, kua maoka te hinu.

When Matariki is seen, then game is preserved.

Background information

From the time the earliest waka arrived in Aotearoa, Māori had to innovate to grow and store food in a new climate. Rather than having access to food sources year round, winter meant that preserving and storing food for when supplies were less plentiful became a necessity. By the time of Matariki, food was stored or preserved to feed hapū and iwi, and for the possibility of trading with others.

Foods like kūmara, shark, and eels were dried in embers or, in the geothermal Rotorua area, spread on hot rocks. Shellfish were threaded onto long lengths of twisted flax and hung from lines or whata (platforms) to dry in the sun and wind. Crayfish, fish and kānga (corn) could be fermented (mara kai) by placing the kai in a kete (flax basket) and steeping it in very slow-running water for days or weeks.

Fatty birds such as tītī (muttonbirds) were preserved in their own fat, and packed into hue (gourds). South Island tribes use the poha tītī – a kelp bag covered with strips of tōtara bark and placed inside a woven kete (basket) – as a unique way of preserving and storing tītī. The custom of collecting and storing tītī – widely known as muttonbirding – is still practised by the people of Rakiura (Stewart Island), where their descendants have seasonal rights to gather tītī on 36 nearby islands.



Hīnaki (eel/fish trap), 1850–1900 by unknown weaver. Acquisition details unknown. Te Papa (ME011844)

Food was stored temporarily on whata until it could be stored more permanently in pātaka (storehouses) or rua kūmara (underground storage pits). Raised, thatched storage helped to protect the crops from kiore (rats) and the weather.

Kūmara were stored in pits dug into the slope of a hill, so that the crop could not be damaged by water. Shelves were cut into the inner walls of the pit and whole kūmara were placed inside. The kūmara were regularly checked and rotated to make sure they were dry.

Discover

- ▶ Taste a selection of fermented, dried, or preserved food. Compare the taste and texture to the fresh version of each food.
- ▶ Use a modern food dehydrator, or use an oven on a low temperature, to dry out food and try early methods for drying food. Compare the two processes and end results. Hypothesise, experiment, and test assumptions.
- ▶ Make fermented foods like kimchi or sauerkraut and try pickling vegetables like onions and cucumbers to preserve them. You could use time lapse video or photography to record the rate of food deterioration or preservation.

From the collection:

A pātaka is a raised storehouse used by many iwi to protect food from rats and weather.

- ▶ View [Te Takinga Pātaka](#) from *Tales from Te Papa*.
 - Listen carefully to the video and timeline the whakapapa and journey of Te Takinga.
 - Explore why people might refer to the pātaka as an ancestor, that watches over them at Te Papa.
 - How is a pātaka an innovative solution to a problem?
- ▶ View the watercolour [Pātaka](#) from the art collection at Te Papa. Discuss what you can see in the image. What does the image tell you about the lives of the people depicted and their food storage methods?

Ngā pātai (questions) for older students:

- What features of the design of a pātaka show it was originally a storehouse for food? Explain the importance of these features.
- Think about where this hapū may have lived, and when.
- At what time of year could this have been painted?
- How can you tell that the pātaka was an important building here? Why was it so important?
- What might happen to the catch now?
- Why did Major General Horatio Robley capture this scene?
- Why might a pātaka be a signal of a hapū/iwi's wealth and prosperity, especially at Matariki?

Explore

- ▶ Compare how we store food today and how food was stored in the past. What are the advantages and disadvantages of each method?
- ▶ Check out the story of [Hastings Intermediate School](#) where students solved a food storage problem at their school through technology. Is there a food storage problem at your school that you can solve?
- ▶ Harvest an abundant crop from your school garden or buy fruit or vegetables that are in season from the supermarket. Investigate ways that you can store or preserve this food. Try a range of methods.
- ▶ Find images of kūmara pit sites around Aotearoa, or if possible, visit one in your local area.

From the collection:

View [Seaweed Pantry](#) from *Tales from Te Papa*. This video offers a general introduction to poha tītī.

Then watch [Mahinga Kai](#), a Ngāi Tahu production about the making of these containers.

'[Pōhā: A Clever Way of Storing Food](#)' is a journal article that also explains the traditional Māori way for storing harvested tītī.

Ngā pātai for older students:

- Why are tītī so closely associated with Matariki?
- Discuss the similarities and differences between preserving tītī and preserving other food.
- Explore and debate the idea that 'The poha tītī is an innovation at least 100 years ahead of its time.' Explore other cultures and their food storage.
- ▶ Create a set of instructions that describe the way poha tītī are made.
- ▶ Try making a bag or ball from a natural material found in your local area.

Innovate

- ▶ Design a preservation or storage container for something that grows in the local community, taking into account the requirement of that particular food and its growing patterns.
- ▶ Design a pātaka for the future, using the physical aspects of a traditional pātaka and current or future technology.
- ▶ Make a storage container with natural objects, and then try to replicate it with found objects. Create a criteria with students and make that part of the brief.
- ▶ Use all three ideas to create a class or school innovation competition, with students and community judges.

Kupu hou – New words

hue | *gourds*

kānga | *corn*

kete | *flax basket*

kiore | *rat*

mara kai | *fermented*

ngā pātai | *questions*

pātaka | *food storehouse, pantry*

poha tītī | *a storage bag for muttonbirds*

rua kūmara | *underground storage pits*

tītī | *muttonbirds*

whata | *platforms*

Module 5 – Cooking and eating kai

Learn about hāngī, and bring your school whānau together to share kai, and new learning about Matariki.

Matariki ahunga nui

Matariki, provider of plentiful food



Hāngī, Northland. Photograph by Eric Lee-Johnson; 1950s; New Zealand. Purchased 1997 with New Zealand Lottery Grants Board funds. Te Papa (O.007630)

Background information

Matariki is a time for feasting and for sharing the fruits of the harvest with whānau and hapū. Matariki feasts often feature food that is cooked in a hāngī (earth oven).

The hāngī is a traditional Māori cooking method. A shallow pit is dug into the earth and hot rocks and water are used to create steam. Food is placed on top of the rock (first meat, then vegetables) and covered with leaves, whāriki (flax matting) or, in recent times, cloth or sacking. Soil is then placed over the hāngī to trap the steam for a few hours. The exact time depends on the size of the hāngī.

Hāngī are still commonly used today for special events and large gatherings.

Discover

- ▶ Read **Matariki Breakfast**, or listen to the **audio file**. Note how the story has links to earlier learning about Māui and the Sun. Discuss the coming together of people to celebrate Matariki, and the importance of kai to the celebration.
- ▶ Organise a feast to celebrate Matariki with whānau and the school community. This could be a breakfast, like in the story, or something like a **hāngī** in the evening, with torches and glowsticks. Kai can be shared and waiata sung.

Explore

From the collection:

- ▶ View the following hāngī images, in the order in which they appear:
 - **Preparing for the hāngī** – Foods are prepared in three sections: meats, potato and vegetables, and puddings.
 - **Hāngī rock no. 2** – Stones are heated to the white hot stage, using untreated wood only.
 - **Hāngī preparation at Te Kaha, probable during opening of the meeting house 'Tukaki', July 1944** – Food is placed on top, meats first, after which the entire hāngī is watered slightly to cause steam to form.
 - **Hāngī** – The food is then covered with flax matting or leaves or both, then buried under dirt.
 - **Hāngī, Northland** – The food is steam cooked under pressure from the leaves and soil, for at least three hours.
 - **Lifting a hāngī** – The hāngī is lifted, and food is served.

For younger students:

- ▶ Order the photos, and create a storyboard that is like a set of instructions.
- ▶ 'Make' a hāngī in a sandpit or garden, with natural materials and pretend food. Have some students photograph the experience, so that later it can be made into a big book.
- ▶ Make a wall display that shows the hāngī layers. Using coloured paper or natural materials, students can reconstruct the rocks, mats, fire etc, then layer and label them on the wall.

For older students:

- ▶ Analyse the images closely. Think about:
 - Who or what is in the image?
 - How does this image capture the hāngī experience?
 - Why have the objects or people been recorded, and why have they been put into a museum collection?
 - Who were these images for?
 - What aspects of Matariki do these images convey?
 - In what ways would these images be the same or different now?

For all ages:

- ▶ Create a reflection of your learning about Matariki in 2018. Some suggestions are:
 - Use **Periscope** to film 1 -minute digital presentations of learning and publish them on a blog.
 - Create a **digital portfolio**, or a **flip book** of innovative objects over time.
 - Publish a podcast to iTunes.
 - Create a stop motion video about renewal in nature, in your classroom or in the community.
 - Create card or board games or a **digital breakout game** to reinforce and share your learning.

Innovate

- ▶ Design a way to innovate on a hāngī – how could you cook foods faster or use different equipment?
- ▶ **Pūhā & Pākehā** is an innovative food business, creating traditional Māori food with contemporary Pākehā cooking methods. Their **menu** showcases a number of ingredients that can only be found in Aotearoa. Write and illustrate your own food truck menu that showcases your innovative food ideas.
- ▶ Having a hākari (feast) with family and friends is an important part of Matariki. Bring in the recipe for your favourite sharing dish, and create a class cookbook for Matariki.

Kupu hou – New words

hākari | *feast*

hāngī | *earth oven*

whāriki | *flax matting*

Strand	Goals	Learning outcomes
Mana whenua <i>Belonging</i>	Children and their families experience an environment where: <ul style="list-style-type: none"> • connecting links with the family and the wider world are affirmed and extended • they know that they have a place. 	Children become increasingly capable of: <ul style="list-style-type: none"> • making connections between people, places and things in their world • understanding how things work here and adapting to change • showing respect for kaupapa, rules and the rights of others.
Mana tangata <i>Contribution</i>	Children experience an environment where: <ul style="list-style-type: none"> • there are equitable opportunities for learning, irrespective of gender, ability, age, ethnicity or background • they are affirmed as individuals • they are encouraged to learn with and alongside others. 	Over time and with guidance and encouragement, children become increasingly capable of: <ul style="list-style-type: none"> • recognising and appreciating their own ability to learn • using a range of strategies and skills to play and learn with others.
Mana reo <i>Communication</i>	Children experience an environment where: <ul style="list-style-type: none"> • they develop non-verbal communication skills for a range of purposes • they develop verbal communication skills for a range of purposes • they experience the stories and symbols of their own and other cultures • they discover different ways to be creative and expressive. 	Over time and with guidance and encouragement, children become increasingly capable of: <ul style="list-style-type: none"> • using gesture and movement to express themselves • understanding oral language and using it for a range of purposes • enjoying hearing stories and retelling and creating them • expressing their feelings and ideas using a range of materials and modes.
Mana aotūroa <i>Exploration</i>	Children experience an environment where: <ul style="list-style-type: none"> • they gain confidence in and control of their bodies • they learn strategies for active exploration, thinking and reasoning • they develop working theories for making sense of the natural, social, physical and material worlds. 	Over time and with guidance and encouragement, children become increasingly capable of: <ul style="list-style-type: none"> • playing, imagining, inventing and experimenting • using a range of strategies for reasoning and problem solving • making sense of their worlds by generating and refining working theories.

The curriculum acknowledges the principles of the Treaty of Waitangi, and the bicultural foundations of Aotearoa New Zealand. All students have the opportunity to acquire knowledge of te reo Māori me ōna tikanga.

Learning Area	Level	Curriculum links	Module 1	Module 2	Module 3	Module 4	Module 5
Social Sciences	1	Understand how the cultures of people in New Zealand are expressed in their daily lives.	●	●	●	●	●
	2	Understand how cultural practices reflect and express people's customs, traditions, and values.	●	●	●	●	●
	3	Understand how cultural practices vary but reflect similar purposes. Understand how people remember and record the past in different ways.	●	●	●	●	●
	4	Understand how people pass on and sustain culture and heritage for different reasons, and that this has consequences for people.	●	●	●	●	●
Science	3–4	Planet Earth and Beyond: Astronomical systems – Investigate the components of the solar system, developing an appreciation of the distances between them.	●				
Learning Languages – Te Reo Māori	1–4	Cultural knowledge – Make connections with known cultures.	●	●	●	●	●
Technology: Nature of Technology	1	Characteristics of technology – Understand that technology is purposeful intervention through design. Characteristics of technological outcomes – Understand that technological outcomes are products or systems developed by people and have a physical nature and a functional nature.			●	●	●
	2	Characteristics of technology – Understand that technology both reflects and changes society and the environment and increases people's capability. Characteristics of technological outcomes – Understand that technological outcomes are developed through technological practice and have related physical and functional natures.			●	●	●
	3	Characteristics of technology – Understand how society and environments impact on and are influenced by technology in historical and contemporary contexts and that technological knowledge is validated by successful function. Characteristics of technological outcomes – Understand that technological outcomes are recognisable as fit for purpose by the relationship between their physical and functional natures.			●	●	●
	4	Characteristics of technology – Understand how technological development expands human possibilities and how technology draws on knowledge from a wide range of disciplines. Characteristics of technological outcomes – Understand that technological outcomes can be interpreted in terms of how they might be used and by whom and that each has a proper function as well as possible alternative functions.			●	●	●

In addition to those learning areas named above, English and the arts will be used at all levels to interpret and present information and learning.