



# A learning from home pack

For learners in years 4-6

# Sustainability | Toitū

**Context 1: Environmental sustainability (Kaitiaki of our waterways)** 

**Context 2: Cultural sustainability (Showcasing culture through art)** 

#### Layout of the resource

This pack is filled with learning activities that can be used at school or at home. All activities are framed around the theme of sustainability | toitū.

Suggestions are provided for starting the day with a karakia (see p. 7), check in with the teacher, and setting up the learning environment. You can replace these with how you want your learner to start their day.

The activities follow an inquiry learning model (figure 1) exploring one theme through two contexts. Each day the learner will be working through one part of the model culminating with sharing their learning on days five and ten.



Figure 1 Inquiry learning model

#### Realities

You know your learners and have a good understanding of their learning situations. Many learners will be sharing space and materials. Some may have access to the internet and devices, and others may not. Learners will also have varying levels of adult support. This pack contains a mix of activities using materials found in most homes. Some activities will need support while others can be managed independently.

#### Resources

The pack uses a range of books from the Figure it Out and School Journal Series. **You might want to send these home with the learner**, along with an exercise book, pencils, crayons, or felts, and some craft materials (glue, scissors, construction paper). Learners can bring their notebook back to class to share. All images have been sourced with permissions for use in this pack. If your learners do not have reliable access to the internet, here are the resources to print and send home to create a paper-based pack.

#### Resources to print and send home

#### Figure it Out:

- https://nzmaths.co.nz/resource/sea-sorting
- https://nzmaths.co.nz/resource/5rs-and-scram

#### School Journals:

- https://instructionalseries.tki.org.nz/Instructional-Series/Ready-to-Read-Colour-Wheel/Treasure-from-the-Sea
- https://instructionalseries.tki.org.nz/Instructional-Series/Connected/Connected-2017-Level-2-Taking-Action/Down-the-Drain
- https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-November-2018/Plastic-Planet
- https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-November-2018/The-Plastic-free-Challenge
- https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-November-2020/The-Korero-of-the-Waka
- <a href="https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-53-Level-2-2016/Toku-Pepeha">https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-53-Level-2-2016/Toku-Pepeha</a>
- https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-May-2020/Monsters
- <a href="https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-55-Level-2-2017/Weaving-Tukutuku">https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-55-Level-2-2017/Weaving-Tukutuku</a>
- <a href="https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-June-2018/Ngatu-Keeping-the-Tradition-Alive">https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal/School-Journal/School-Journal/School-Journal-Level-2-June-2018/Ngatu-Keeping-the-Tradition-Alive</a>
- <a href="https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-3-November-2019/For-the-Ancestors">https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal/School-Journal-Level-3-November-2019/For-the-Ancestors</a>
- <a href="https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal-Story-Library/Keeping-Our-Stories-Alive">https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal-Story-Library/Keeping-Our-Stories-Alive</a>

#### Other

- <a href="https://www.doc.govt.nz/about-us/science-publications/conservation-publications/native-animals/marine-mammals/marine-mammals-of-nz-poster/">https://www.doc.govt.nz/about-us/science-publications/conservation-publications/native-animals/marine-mammals/marine-mammals-of-nz-poster/</a>
- https://www.sciencelearn.org.nz/resources/2074-oceans-of-rubbish
- <a href="https://www.sciencelearn.org.nz/resources/2544-understanding-kaitiakitanga">https://www.sciencelearn.org.nz/resources/2544-understanding-kaitiakitanga</a>
- https://www.learnz.org.nz/redvale181/bg-standard-f/the-5-r%27s-of-wastemanagement

#### Setting up the learning environment

Encourage whānau to support learners to set up a space for learning at home. Learners might like to design their own space as a separate learning activity. Some materials they may need could include pen, pencils, paper, a notebook, colouring pencils, glue, scissors, and a device to access the internet.

Some of the suggested activities and experiences include the optional use of online resources which can be accessed and viewed using a Smartphone.

#### Overview of the learning in this pack

The theme of **sustainability | toitū** will be explored through two contexts.

- Days 1–5 look at this idea through the context of environmental sustainability.
- Days 6–10 look at this idea through the context of cultural sustainability.

Learners will explore, investigate, discover, and make meaning as they go through each task. There are times where they look a little deeper into the topic. Some of the tasks may be independent hands-on tasks while some may involve connecting and sharing with others.

Day 1	Day 2	Day 3	Day 4	Day 5
Getting started What waterways and marine life are in our community? Why are they important?	Explore investigate and discover How does rubbish affect waterways?	Making meaning How healthy is my local waterway? What is kaitiakitanga?	Going further/ deeper How can I become a kaitiaki of my waterway/s?	Share your learning What actions can we take together?
Day 6	Day 7	Day 8	Day 9	Day 10
What is culture?	Exploring Māori culture through art	Exploring Pacific cultures through art	What is my culture?	Representing my culture through art

#### **Daily timetable**

Below is a possible daily timetable. We have allocated 30 minutes for each activity; your learner may take more or less time than this for an activity. We suggest your learner takes the time they need to complete an activity. This may mean they choose which activities they will complete for the day, rather than complete them all.

At the start of each day the learner will draw up their timetable for learning. You can adjust the timing to suit the other activities that might be happening the day, such as Zooming with the class/teacher.

Time	Activity
9:00 am	Starting the day
9:30 am	Activity 1
10:00 am	Break
10:30 am	Activity 2
11:00 am	Fitness break
11:30 am	Activity 3
12:00 pm	Lunch time
1:00 pm	Activity 4
1:30 pm	Reflection time
2:00 pm	End of the school day

# Daily fitness - Choose something each day

Please ensure that your learner includes fitness in their daily timetable. If possible, it would be great to do the fitness activity with your learner or have them complete it with others. Below are activities to choose from – or you can make up your own ideas!

Tama Tū, Tama Ora; Tama Noho, Tama Mate. Through physical activity we thrive. Through inactivity we languish.

Your learner may prefer to go for a walk or run around your house. They could time themselves for fun! Maybe they'd like to go for a bike ride? Play a game with whānau? Have a boogie to a favourite song? Or do some yoga? It is up to you just get active!

Please note you can change or modify the exercises (in addition to those suggested) if you are not able to do the ones we have suggested, get creative and change it up

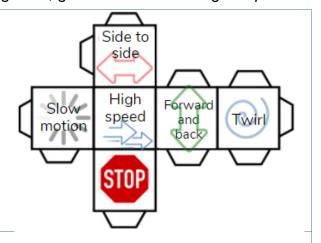
#### Obstacle course movement

Create an inside or outside obstacle course.

Make a die with different ways of moving on each side.

Throw the dice and move around the course following the movement instructions. You could throw the dice to move to each station in the course.

Remember to move safely!



#### Tabata training – 10 minutes

Tabata training is named after Japanese scientist Dr Izumi Tabata. The approach is to do 20 seconds of vigorous activity with 10 seconds of rest. Below is a range of actions that you can do, or you can replace these with actions that suit your fitness and ability level. Either use a timer or you can count to keep to the time. Repeat x 3

- 1. Jumping jacks (20 seconds) rest (10 seconds)
- 2. Lunges (20 seconds) rest (10 seconds)
- 3. Hold plank position (20 seconds) rest (10 seconds)
- 4. Invisible jump rope (20 seconds) rest (10 seconds)
- 5. Wall chair seat (20 seconds) rest (10 seconds)
- 6. Fast arm circles (20 seconds) rest (10 seconds)

#### Full of beans

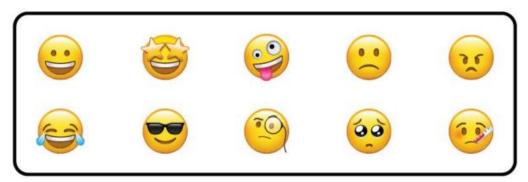
For this activity you could make a set of cards with the different types of beans on them. Draw a card and do the activity for 10 seconds:

- Jumping bean jump on the spot (or around the room)
- Runner bean run on the spot (or around the room)
- Broad bean stretch out as wide as you can
- Baked bean lie on the floor like you are sunbaking
- Jellybean wobble like a jelly
- Chilli bean shiver and shake
- Frozen bean stand very still
- String bean stretch up on tiptoes and make yourself as tall as possible
- Mr Bean be silly!

# Daily wellbeing - Choose something each day

These activities are good to do at the beginning and end of the day but can be done anytime. They can help you get ready for learning, calm your mind and body, and can help you to reflect on your learning.

#### How are you feeling today?



Put on some of your favourite music. Either quietly listen and enjoy the music or get up and dance!

How do you feel now? Why do you feel like that? Write or draw in your reflective journal.

#### Take a thought break

Change it up!

Move from where you are to a different space. Now you are in the new space change your thinking – think about things you like to do, people you like to spend time with, places you like to go.

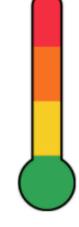
Take a deep breath and appreciate the good things in your life. Now you can get up and go back to what you were doing before with a fresh mind.

#### My feelings thermometer

Feelings can range in strength or intensity, and we use different words to show this range, for example you can be happy or joyful or ecstatic, you can be annoyed or angry or furious.

Sometimes it is useful to check the "temperature" of our feelings. We can then see how they change and also help us to figure out how to drop the temperature when it gets too high.

Choose a feeling from the feeling chart above, and then mark on the thermometer how strongly you are experiencing that feeling. If you wanted to increase the temperature of a feeling (maybe from happy to really happy) or reduce your temperature (maybe from annoyed to calm) what activities could you do to make that happen?



Record the date in your reflective journal. Now either write or draw how you are feeling and draw a thermometer and mark the strength of your feeling. You could also record the action you took to change the strength of your feeling.

# Starting each day

#### Notes for teachers and whānau:

Starting the same way each day helps create a structure for your learner. Your school might have your own way to do this, for example starting the day together as a class on Zoom. In this pack we provide a karakia to settle into the day. Saying the karakia with your **learner** a few times will help them be able to do this more independently tomorrow and beyond. As part of the start of the day and setting up the learning environment, help your learner look through the activities suggested for that day **and choose a fitness and wellbeing activity**. They could fill out their daily timetable and think of other activities they might like to do, like reading.

Remind your learner of when and how to check in with the teacher/you.

#### Karakia

Here is a karakia to welcome in the day

Mauri oho | karakia timatanga Mauri oho Mauri tū Mauri ora ki a tātou Haumi e, Hui e Tāiki e! Life force awaken Life force stand tall Life force all wellness, good health for all Join together, unite, the group is ready to progress for the purpose of coming together

#### **Planning my day**

- Have you chosen which activities you will do today and in which order?
- Remember to choose a fitness activity (see p. 5)?
- Have you chosen a wellbeing activity (see p. 6)?
- Have you done a 'Wellbeing check-in'?
  - o How are you feeling today?
  - o How do you feel about your readiness to learn this morning?
  - What do you need extra assistance with today? Who could you get to help you? What strategies could you use to help make your learning more effective?
  - What would you like to do as a quiet time activity to end your day?
- Remember to do your Reflection at the end of the day (see p. 8).

# **Ending each day**

#### Please ensure your learner does this at the end of each day.

Reflection can be challenging for all learners, but it can also provide them with rich opportunities to think about how their learning is progressing. Use the questions below as prompts to encourage your learner to think about what they have learned so far and help them to plan out their next steps. If you have concerns with their learning or find that your learner is needing more help, contact their teacher for more support.

#### In this activity I am learning to: reflect on my learning, my day and myself

What do I need?

- A notebook or online doc that you can use each day for your reflection activity.
   We will call this your "reflective journal"
- Materials for your quiet time activity

#### Option 1: Reflections about my learning

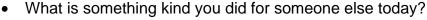
Take time to think about how you are feeling after today's learning. Reflect on 2 or 3 of the following prompts in your reflective journal.

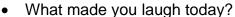


- What did you enjoy most about today?
- What is one thing you feel you learnt today?
- What is one strategy that helped you with your learning?
- Is there anything you need extra help with? Who can you ask to help?
- Is there anything you want to catch up on tomorrow?

#### Option 2: Reflections about my day

Choose 2 or 3 questions to respond to in your reflective journal:





- What is something that frustrated you today?
- What is something you wish you had done differently today?
- On a scale of 1–10, with 10 being the best day ever, how would you rate your day? Why?
- Were you able to finish all of your work today? Why or why not?

#### Option 3: Reflections about myself

Choose 2 or 3 questions to respond to in your reflective journal:

- What are your greatest strengths?
- If you could live anywhere in the world, where would it be? Why?
- Who do you talk to when you have a problem? How do they help?
- What do you like to do for fun?
- If you could have one wish, what would it be?
- What are you grateful for?
- What do you like about yourself?

Remember to finish with a wellbeing activity and/or your chosen quiet time activity.





# **Context 1: Environmental sustainability**

In the first five days we will investigate the theme of sustainability by looking at how we understand and work towards environmental sustainability.

# Environmental sustainability

Sustainability | Toitū



# Day 1 activity 1: Reading Treasure from the Sea

#### Notes for teachers and whānau

For this first task the learner is going to be reading Treasure from the Sea, a story about a girl who visits the beach with her Nan. In the story, the girl rescues a stranded fish. After reading the story, the learner will answer reading comprehension questions related to the text and think about the waterways that they visit and enjoy with their whānau.

Getting started

Note that our Inquiry focus for today is "getting started" which includes generating questions, activating prior knowledge, and introducing the theme. The two key questions that your learner will explore are:

- What waterways and marine life are in our community?
- Why are they important?

I am learning to: search the text to find information and compare the character's experiences in the story to my own.

What do I need?

- 30 minutes
- Home learning book, ruler, and a pen/pencil
- Look in your pack for a copy of Treasure from the Sea by Francesca Riley

#### Instructions

Read *Treasure from the Sea* by Francesca Riley and complete questions and activities related to the story.

Optional: Listen to the audio recording of the story
<a href="https://instructionalseries.tki.org.nz/Instructional-">https://instructionalseries.tki.org.nz/Instructional-</a>
<a href="mailto:Series/Ready-to-Read-Colour-Wheel/Treasure-from-the-Sea">https://instructionalseries.tki.org.nz/Instructional-</a>
<a href="mailto:Series/Ready-to-Read-Colour-Wheel/Treasure-from-the-Sea">Series/Ready-to-Read-Colour-Wheel/Treasure-from-the-Sea</a>

# Treasure from the Sea by Francesca Riley illustrated by Elspeth Alis Batt Ready to Ready

#### Your task:

Talk to someone about these questions or record your answers and complete these activities related to the story. There are a range of activities below, and you can do as many of them as you would like.

- What was the name of the girl in the story?
- Where did Nan live? What did Nan like to do every day?
- 1. Draw a picture of the beach, showing the "treasure left by the tide".
  - What did Megan like to do with the treasure on Nan's windowsill?
  - Why do you think Megan skipped along the beach ahead of Nan?
- **2. List** or **draw** the different things that Megan found on the beach.
  - What is a 'sigh'? When do you sigh? Why did Megan sigh in the story?
  - What treasure did Megan find in the stream?
  - Why was the fish in danger and how did Megan and others help it?
  - Have you ever found "treasure" at the beach? What did you find?

#### 3. Draw a table like the one below.

Find out what the words "shimmered", "stranded" and "trench" mean. You could ask someone in your whānau or look the words up in a dictionary. Using your own words, write the meanings of each word in the right column.

shimmered	
stranded	
trench	

4. Think about a time when you have visited a beach, river, stream, or lake.

Who did you go with? What did you do there? What was your favourite part of the visit? What animals and plants did you see? Did you find any "treasure"?

**Draw** a picture of this experience. Share your picture with your teacher and your whānau.

#### 5. Read the following whakataukī

Ko au ko te taiao, ko te taiao ko au I am the environment, and the environment is me.

This whakataukī describes the close physical and spiritual connection that people have with the environment. It can also be used to promote a message of environmental sustainability – if the health of the environment suffers, so too does the health and wellbeing of the people.

**Consider** how this whakataukī relates to Nan's connection to the ocean in the story. How does the sea and its treasures impact on the lives of Nan and Megan? What does the whakataukī mean to you? In what ways do you feel connected to the environment?

# Day 1 activity 2: Writing an acrostic poem

#### Notes for teachers and whānau

Your learner will build on activity 1 by writing an acrostic poem about a local waterway. You could support them by talking about a beach, river, lake, or stream you like to visit.

I am learning to: write a poem about a waterway that is special to me.

What do I need?

- 30 minutes
- Home learning book and a pen/pencil

#### Instructions

Think about the local beaches, bays, rivers, streams, or lakes in your area. Choose one that is special to you and your whānau and describe it in an acrostic poem.

#### Your task:

Select one local waterway that you visit and enjoy with your family.

Find out the name of this waterway and write it in the middle of a blank page in your home learning book – this will be your brainstorming page. Does the waterway have a te reo Māori name? What does it mean?

Now write or draw the features and characteristics of this waterway and how you and other people use it. Use these questions to help you brainstorm:

- What do you do when you visit this waterway? How do other people use it?
- Why do you enjoy going there? Have you found 'treasure' there?
- Describe how the water looks and feels? Use adjectives (describing words).
- What animals and plants live in and around the waterway?
- How does this waterway add value to your life?

On the next page, create an acrostic poem template (see image). Count the number of letters in the name of your waterway so you know how many squares to include. Write the name of your waterway down the page, one letter in each square.

Now write one word or phrase for each letter in your waterway's name. Use your brainstorm to help you think of ideas. If you get stuck on a letter, ask for help from someone in your whānau or look in a dictionary. Here's an example for inspiration.

# My acrostic poem D igging deep holes in the sand, A II my cousins building castles and trenches together, Y ells from teenagers jumping off the wharf, S plashing as they hit the moana. B abies giggle as the waves bubble over their toes, A boat's engine roars in the distance, Y ahoo! I found a kina shell! When you have finished writing your acrostic poem, you could illustrate it. Read it to your whānau and share it with your teacher.

# Day 1 activity 3: Sorting sea creatures

#### Notes for teachers and whānau

This activity is from the Figure It Out series. Your learner may have seen this problem before. If so, encourage them to give it a go again as a way of practising their sorting and graphing skills. We will build on our sorting skills tomorrow.

I am learning to: sort sea creatures into groups and make a graph to show the number of sea creatures in each group.

What do I need?

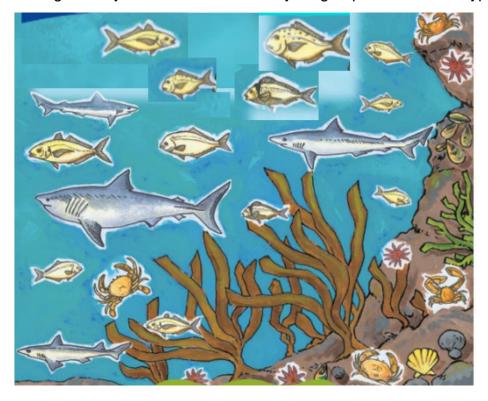
- 30 minutes
- Home learning book or graph paper, pencil, and ruler
- Look in your pack for a copy of the Sea Sorting Figure It Out activity https://nzmaths.co.nz/resource/sea-sorting

#### **Instructions**

Sort the sea creatures into categories and make a graph to show the data. You may like to talk with someone in your family about the different ways that the animals can be grouped before creating your graph.

#### Your task:

- 1. Look at the picture and work out how to sort the sea creatures into four groups.
- 2. In what other ways could you have grouped the sea creatures?
- 3. Make a graph that shows the number of sea creatures in each of your groups.
- 4. Using your graph, ask someone in your whānau some questions about the information that your graph shows.
- 5. Challenge: Can you show the data from your groups in a different type of graph?



# Day 1 activity 4: Science – marine mammals of Aotearoa

#### Notes for teachers and whānau

In this activity the learner will view a poster that shows marine mammals of Aotearoa. They will answer comprehension questions related to the information on the poster and think about how the marine mammals can be sorted into different groups. You may like to support your learner by reading the poster together and talking about the similarities and differences between the mammals.

I am learning to: locate information about marine mammals and sort marine mammals into groups based on common characteristics.

What do I need?

- 30 minutes
- Look for a copy of the marine mammals poster in your pack (DOC)
   https://www.doc.govt.nz/about-us/science-publications/conservation-publications/native-animals/marine-mammals/marine-mammals-of-nz-poster/
- Home learning book and a pen/pencil

#### **Instructions**

Look for the poster *Marine Mammals of New Zealand* in your pack. If you have access to a device you can view the poster online.

#### Your task:

Study the poster of marine mammals that live in the waters of Aotearoa. Complete these questions and activities:

- What is New Zealand's largest whale?
- How many orca are estimated to live in the waters of Aotearoa?
- Where might you find common dolphins?
- Locate where you live on the map of Aotearoa.
   Use the key to see what types of mammals live along the coast line near your home. Write them down.
- List the marine mammals that you have seen in the waters or along the coastlines of Aotearoa New Zealand.
- What does the word "endemic" mean? Which marine mammals are endemic to Aotearoa New Zealand?
- How might you sort these marine mammals into categories? Think of two different ways that they can be sorted and record your thinking.
- Make a graph to show your groupings.

### **Extension activity:**

Read about the endangered Māui and Hector's dolphins in this Greenpeace article. <a href="https://www.greenpeace.org/aotearoa/story/three-nz-native-marine-mammals-that-need-our-protection/">https://www.greenpeace.org/aotearoa/story/three-nz-native-marine-mammals-that-need-our-protection/</a>

Remember to do your end of day reflection and wellbeing activities (see p. 8)



# Day 2 activity 1&2: The problem of rubbish

#### Notes for teachers and whānau

Learners watch a video about rubbish littering our streets and collecting in our gutters. They then answer comprehension questions and consider actions people can take to reduce rubbish and take better care of Papatūānuku and her moana.



Note our Inquiry focus for today is "explore, investigate, and discover" which includes choosing and evaluating information, and thinking critically. This activity will take about one hour so it can be stretched across two half hour blocks. The key question is:

#### How does rubbish affect waterways?

# I am learning to: find information in a video to respond to questions about rubbish problems.

What do I need?

- 30 min 1 hour
- https://www.tvnz.co.nz/shows/home-learning-tv/episodes/sage-9-11-e272
- Home learning book and a pen/pencil

Optional: <a href="https://instructionalseries.tki.org.nz/Instructional-">https://instructionalseries.tki.org.nz/Instructional-</a> Series/Connected/Connected-2017-Level-2-Taking-Action/Down-the-Drain

#### Remember to start your day right (See p. 7)

#### Instructions

If you have access to Home Learning TV complete all tasks. If not complete tasks 3 and 4.

#### Your task:

- 1. Watch *Home Learning TV Middle Science with Shawn Cooper* (24:26 mins). You might want to read the supporting text *Down the Drain* as well.
- 2. After you have watched the video, answer the following questions in your book:
  - What did the Wilford School students discover on their snorkelling trip to Lowry Bay?
  - What did they decide to do about it?
  - What are microplastics and what happens to them?
  - What did the community do in response to the information evening? Did it help?
  - What could you do to use less plastic?
- 3. What could you do to remove rubbish from your local moana, awa, or roto? Can you invent a machine or tool to reduce rubbish? **Draw** your idea/s in your book.
- 4. Read the following whakataukī

E kore tatau e mōhio ki te waitohu nui o te wai kia mimiti rawa te puna. We don't know the value of water, until the well runs dry.

This whakataukī explains that we only truly appreciate things when they are gone. Consider how this whakataukī relates to the problem of rubbish in the ocean. Although the ocean won't "run dry", what damage can rubbish do to our oceans? How can you spread the message of this whakataukī with the people in your family and community?

# Day 2 activity 3: Calculating rubbish

#### Notes for teachers and whānau

This builds on the previous activity. The learner calculates the amount of rubbish items collected in one year following the steps described by Shawn Cooper. The learner will make a timeline of the time that different pieces of rubbish break down in the ocean.

#### I am learning to: make mathematical calculations and a timeline.

What do I need?

- 30 minutes
- Home learning book and a pen/pencil
- Calculator
- 5 metre piece of string
- Paper to make labels
- Scissors and sticky tape

Optional - Slideshow from "Down the Drain"

https://docs.google.com/presentation/d/1pQSSv3N35O8ZqWQ5YfmDD9Y\_GyPmro6f GivfTE\_dQqo/edit#slide=id.g16c6a7e020\_1\_0

#### Instructions

Study how the students from Wilford School estimated the amount of rubbish sent to Lowry Bay from Jackson Street each year. What mathematical equations did they use? You might like to re-watch the video (watch from 13:30 mins) or study the calculations on slide 5 of the slideshow. Today you are going to repeat the same steps to solve a different mathematical problem THEN you are going to create a timeline to show how long it takes rubbish to break down in the ocean.

#### Your tasks:

Task 1 – In the video, the students collected 2,680 pieces of rubbish from two drains over 12 weeks. They used a calculator to estimate how much rubbish is sent to Lowry Bay from Jackson Street every year. Here are their workings.

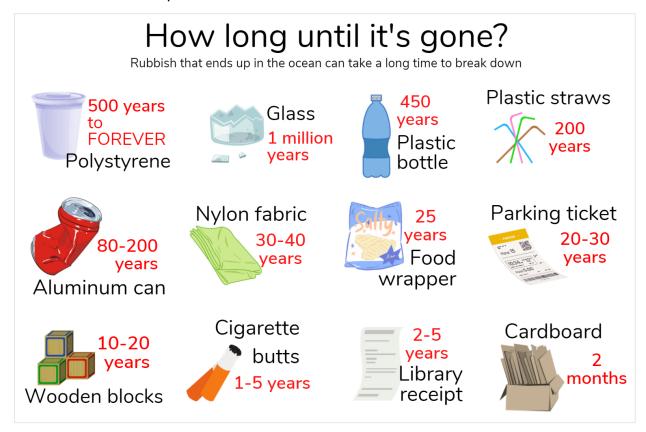
# 2,680 pieces of rubbish!

$$2680 \div 2 = 1340$$
 each drain  
 $1340 \div 12$  weeks = 112  
 $112 \times 52 = 5824$  perdrain  
 $5824 \times 93 = 541,632$ 

Pretend the students repeated the investigation after the 'Drains to Sea' plaques had been installed to see if they made a difference to the litter problem. This time they collected only 1,426 pieces of rubbish from the same two drains over 12 weeks. A great improvement!

- Use a calculator to estimate how much rubbish will now be sent to Lowry Bay from Jackson Street each year. Follow the steps described in the video.
- Write down the equations in your book to show the steps that you followed.
   Check in with your classmates ... did they get the same answer?
- Compare the new total with the number of pieces of litter estimated in the video/text. What is the difference in the two litter totals across the whole year?

**Task 2** – Look at this poster



Make a list of the items of rubbish in chronological order, from the quickest item to break down to the slowest item to break down.

**Create** a timeline to show how long it takes the rubbish to break down:

- 1. Cut a piece of string that measures 5 metres long.
- 2. Make a label that says 500 years and stick it at one end of the string with tape.
- 3. Fold the string in half to find out where 250 years is along your timeline (250 is half of 500). Make a label that says 250 years and stick it here using tape.
- 4. Fold the string into quarters to see where 125 years and 375 years should be on your timeline, make labels for 125 years and 375 years and stick them on.
- 5. Estimate where labels for 60 years, 30 years, 15 years, and 5 years should go. Make these labels and stick them on.
- 6. Now create labels for all the different kinds of rubbish listed on the poster (except for glass). You might like to draw pictures of each type instead of writing the words. Plot all the items of rubbish along your timeline. Once you are happy with their positions, stick them on with tape.
- 7. Hang your timeline up somewhere in your home so that you can share your learning with your whānau. Ask your family if the timeline makes them think differently about how they get rid of their rubbish. Discuss what actions you can take at your house to make a positive difference.

# Day 2 activity 4: Poetry reading and writing

#### Notes for teachers and whānau

In this activity the learner is going to read a poem about plastic in our world and then write a short poem of their own about plastic in their bedroom. Check in with them at the end of the activity and ask them to share their poem with you.

I am learning to: read a poem and think about its main message AND write my own poem following the same theme and rhyme pattern.

What do I need?

- 30 minutes 1 hour
- home learning book and a pen/pencil
- Look in your pack for a copy of "Plastic Planet"
   <u>https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-November-2018/Plastic-Planet</u>

#### Instructions

Read "Plastic Planet" by James Brown

#### Your task:

Here are a range of activities that you could complete. You may want to do some or ALL of them.

- Write down 10 plastic things in the poem.
- Do you think the author thinks plastic is a good thing or a bad thing? Why?
- Re-read the last two lines of the poem: "Long after we've come and gone, our plastic footprints will live on ..." What is the author trying to say? How does this link with the activity where you made a timeline of rubbish?
- Everything is made of plasti Plastic flowers, plastic grass Plastic bricks and plastic glas-Plastic that's as strong as meta Water boiled in plastic kettles Plastic islands in the sea bob with plastic towns and tre Plastic dishes, plastic spoons Plastic cows jump plastic mor Mastic dogs do plastic pose ecooped up in plantic bags (reused) fastic food in plastic wraps ought with plastic swipes and taps Plastic screens show plastic styles. Plantic friends swap plantic smiles Plastic raincoats, plastic rain, Plastic in our bearts and brains. Long after we've come and gone, ar plastic footprints will live on
- The poem is made up of 10 rhyming couplets (2 lines that rhyme). List all the rhyming words in the poem. There should be ten pairs of rhyming words.
- Can you add a third rhyming word for every pair? Grass, glass,? ...
- Find 10 plastic things in your house. Write them down in a list or sketch them.
- Write 3 or 4 rhyming couplets about the plastic in your bedroom. Read the 2 rhyming couplets below for inspiration:

Plastic trains on plastic tracks.

My plastic lunchbox full of snacks.

Plastic Lego in a plastic box,

A Ninjago dragon made of blocks.

 When you have finished writing your poem, you could illustrate it. Read it to your whānau and share it with your teacher.

Remember to do your end of day reflection and wellbeing activities (See p. 6&8).

# Day 3 activity 1: Oceans of rubbish

#### Notes for teachers and whānau

In this activity your learner is going to investigate how plastic moves in the ocean and how it damages marine life.

Note our Inquiry focus for today is "making meaning" which includes analysing data, organising, and sorting information, summarising, synthesising, making connections/conclusions, building deeper understandings, and thinking critically. The key questions your learner will explore are:

- How healthy is my local waterway?
- What is kaitiakitanga?

I am learning to: locate information in a text and carry out my own experiment to see how plastic rubbish moves in water.

What do I need?

- 30 minutes
- https://www.sciencelearn.org.nz/resources/2074-oceans-of-rubbish
- home learning book and a pen/pencil
- items of plastic rubbish, cold water and a bathtub or paddling pool

Remember to start your day right (see p. 7).

#### Instructions

**Read** the article *Oceans of Rubbish* This is a challenging article so you are encouraged to find somewhere comfy and quiet to do this reading. There is a glossary with the text which you may find useful to reference as you read. Ask people in your whānau to help you if there are parts you find difficult to understand.

#### **Adapted text**

Litter has worked its way into parts of the ocean where even humans haven't managed to penetrate. A European study over 10 years, found the presence of bottles, plastic bags, fishing nets and other types of human litter at depths ranging from 35 metres to 4.5 kilometres, from the continental shelf of Europe to 2,000 km away from land.

"This survey has shown that human litter is present in all marine habitats, from beaches to the most remote and deepest parts of the oceans," says Professor Kerry Howell from Plymouth University's Marine Institute. "Most of the deep sea remains unexplored by humans and these are our first visits to many of these sites, but we were shocked to find our rubbish has got there before us."

The study area included the northeast Atlantic Ocean, Arctic Ocean, and Mediterranean Sea, with sampling from continental shelves, continental slopes, submarine canyons, seamounts, banks, mounds, ocean ridges and deep basins. Most of the sampling was done using remotely operated vehicles, towed camera systems or trawls – as it is difficult for humans to explore first-hand at great depths.

Making

meaning

#### Almost half of the rubbish was plastics

Plastic accounted for 41% of the litter. They found that plastics were highly mobile, starting from the coast and being carried along continental shelves and slopes into deep water. Stormwater drains, sewers, rivers, and wind play a role in moving litter to the coast and sea. Derelict fishing gear accounted for a further 34%. Glass (particularly bottles), metal, clinker (burnt coal residue), wood, paper/cardboard, fabric, and pottery were also found.

#### Impact on marine life

Millions of tonnes of litter wind up in the sea each year and cause problems for marine mammals and fish when mistaken for food and eaten, for example, plastic can cause choking or block digestive systems or give animals a sense of feeling full and they can starve to death. Nets and lines can entangle coral or entangle, injure, and drown marine wildlife – a process known as 'ghost fishing'. Ironically, toxins found in various litter, especially plastics, can enter the food chain and eventually come back to affect humans and other predators. The survey researchers say their results "highlight the extent of the problem and the need for action to prevent increasing accumulation of litter in marine environments".

#### Your task:

In your home learning book, complete these questions and activities related to the text:

- What did the seafloor survey tell us about the health of the ocean?
- What word in the article, beginning with the letter 'l', means rubbish?
- Finish the following sentence: 'Nearly half of all litter is \_\_\_\_\_.'
- Describe two ways that rubbish can affect sea creatures.
- Fill up the bathtub or a paddling pool with cold water. Find plastic rubbish around your home (bottles, yoghurt containers, straws, etc) and drop them into the water. Swirl the water with a ruler to distribute the items evenly. Think about the effect that ocean currents would have on this debris if it were in the sea.
- Draw a picture of the rubbish in your bathtub and answer the questions giving reasons for your answers:
  - Which item of rubbish do you think would travel the furthest in the ocean?
  - Which item of rubbish do you think would travel the least distance?
  - Which item of rubbish would take the longest to break down?
  - o Which item of rubbish do you think would be most dangerous for sea life?

#### **Optional online activity:**

Use the Ocean Plastic Simulator to track where rubbish travels to.

https://www.sciencelearn.org.nz/resources/2807-tracking-plastics-in-our-oceans

The simulation tracks movement of up to 30 pieces of plastic for 30 days or until they are all beached. Using the simulator, drop plastic in a spot along New Zealand's coastline and watch what happens. How far did each piece travel? Work out the average distance by counting all the distances and divide by the total number of rubbish pieces. Repeat the process in different spots along the coast. In which spot does the rubbish travel the furthest? In which spot does more of the rubbish return to the beach? In which spot does more of the rubbish travel out to sea?

# Day 3 activity 2: Exploring the health of my local waterway

#### Notes for teachers and whānau

In this activity the learner needs to visit their nearest waterway to investigate the health of the water and surroundings. They could walk, scooter, or ride there with a family member, or you might be able to drive them there if the distance is too far on foot.

#### I am learning to: Investigate the health of my local waterway.

What do I need?

- 30 minutes
- home learning book
- a pen/pencil
- glass jar
- rubbish bag and gloves

#### Instructions

Go for a walk to your nearest waterway with someone in your family. You might like to skate, scooter, or ride there. Take your workbook, a pen, a glass jar, rubbish bag and plastic gloves with you inside a backpack.

#### Your task:

When you get to the waterway find a quiet spot to sit for 5 minutes and look at the scene around you. What animals and plants can you see? What are the colours, sounds, and smells of your waterway? Can you see anything that is causing harm to the waterway? Brainstorm or sketch what you can see, hear, and smell.

Scoop up water into your glass jar and look at the water quality. How clear is the water? Can you see plant or animal life in your sample? Note down what you can see before you empty the jar back into the waterway.

Spend ten minutes collecting rubbish that you see in and around the water. Put it into your rubbish bag to take home. How do you think the rubbish got into the area? Does the area have rubbish bins for people to use? Do you think there should be bins?

Give your waterway a score between 1 and 10 to reflect how clean and healthy it is (1 is badly polluted and 10 is clean and green). Why did you give it this score? Write down 2 - 3 reasons for the score that you decided on.



# Day 3 activity 3: Sorting the rubbish

#### Notes for teachers and whānau

The learner is challenged to sort the rubbish they collected in activity 2 and graph their findings. This activity helps the learner to make sense of the rubbish that they found and decide what actions need to be taken to make their local waterway less polluted.

I am learning to: sort rubbish into groups based on common characteristics and display my findings on a graph.

What do I need?

- 30 minutes
- rubbish collected from the waterway
- gloves and newspaper
- home learning book
- · graph paper and a ruler

#### **Instructions**

Spread out newspaper on your floor or onto a large table. Put on your gloves and lay out the rubbish that you collected from your local waterway onto the newspaper.

#### Your task:

Sort rubbish into types and count the items in each group. Types could include:

- recyclable plastic
- non-recyclable plastic
- paper and cardboard
- cans

- organic food waste
- cigarette butts
- other

Draw a chart in your home learning book and record the total number of rubbish items for each category using tally marks.

Share this data on a graph. You could draw a bar graph on graph paper OR if you have access to a computer, you could make a pie chart to show this information.

In your home learning book, answer the following questions:

- What is the most common type of rubbish?
- What is the least common type of rubbish?
- How much plastic rubbish did you collect?
- Compare your graph with those made by your classmates who are learning at home. What are the similarities and differences?
- Based on your graph, estimate how much rubbish you might collect from your waterway in 4 weeks? What about 40 weeks?
- What actions could be taken to make your waterway less polluted?

## **Extension activity:**

You could contact your local council and share your findings and ideas with them. Find out if they have any clean-up days planned for the waterway and if you can take part.

# Day 3 activity 4: Te ao Māori – Kaitiakitanga

#### Notes for teachers and whānau

The learner will learn about the traditional concept of kaitiakitanga and explore the meaning of related te reo Māori words. You may need to help with the reading.

I am learning to: understand the meaning of kaitiakitanga and other te reo Māori concepts and words.

What do I need?

- 30 minutes
- Look in your pack for *Understanding Kaitiakitanga* from Science Learning Hub <a href="https://www.sciencelearn.org.nz/resources/2544-understanding-kaitiakitanga">https://www.sciencelearn.org.nz/resources/2544-understanding-kaitiakitanga</a>
- home learning book and a pen/pencil

#### Instructions

**Read** *Understanding kaitiakitanga*. This is a challenging article so find somewhere comfy and quiet to read. The glossary may be useful. Ask people in your whānau to help if there are parts you find difficult to understand. Watch the video where Apanui Skipper and Weno Iti tell what kaitiakitanga means to them.

#### Your task:

Copy the 10 Māori words (kupu) from the list below (left column) and write out the correct definition from the right side in your book (the first one has been done for you. The meaning of each word can be found in the article or video. Remember to check the glossary within the text for help.

Kupu Māori	Definition
Kaitiakitanga 🔨	Life force
Kaitiaki	A creature and a guardian of waterways
Taonga	The atua (God) of the sea, lakes, rivers, and
\	creatures that live within them
Tangaroa	Practices
Taniwha	People of the land
Tikanga	Treasures
Kaimoana	Māori elder
Tangata whenua	Seafood
Mauri	Care and guadianship of the sea, sky, and land
Kaumātua	A person who acts as a carer or guardian

#### Read the following whakataukī

Toitu te marae a Tane, Toitu te marae a Tangaroa, Toitu te iwi If the land is well and the sea is well, the people will thrive.

Consider how the health of your local waterway impacts the health and wellbeing of your community? How does this whakataukī relate to the concept of kaitiakitanga? How can you be a kaitiaki of your waterway to preserve its mauri and taonga?

Remember to do your end of day reflection and wellbeing activities (see p. 6 & 8).

# Day 4 activity 1: The plastic free challenge

#### Notes for teachers and whānau

The learner will find out more about the Great Pacific Garbage Patch and what young people are doing to reduce the problem.

Note today our Inquiry focus is "going further, deeper". This may include diving deeper through discussions and exploring further contexts, taking action, thinking critically, and drawing conclusions. The question is:

How can I become a kaitiaki of my waterway/s?

#### I am learning to: locate information in a text.

What do I need?

- 30 minutes
- Home learning book and a pen/pencil
- Look in your pack for a copy of The Plastic-free Challenge
   https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-November-2018/The-Plastic-free-Challenge

Optional: <a href="https://www.stuff.co.nz/business/world/116301442/ocean-cleaning-boom-is-finally-cleaning-up-plastic-rubbish-dutch-inventor-says">https://www.stuff.co.nz/business/world/116301442/ocean-cleaning-boom-is-finally-cleaning-up-plastic-rubbish-dutch-inventor-says</a>

#### Remember to start your day right (see p. 7).

#### Instructions

Read *The Plastic-free Challenge* by Deanna Ferguson.

#### Your task:

Complete these questions and activities:

- What is the Great Pacific Garbage Patch? Write down 3 facts about it.
- What did the students decide to do after learning about the Great Pacific Garbage Patch?
- How could you reduce plastic rubbish in your lunchbox? Think of 3 things.
- What did the students do with all the plastic that they collected at school?
- What invention did Boyan Slat create? If you have access to a digital device, you could read the Stuff article to find out more about the success of his project.

#### Read the following whakataukī

He iti hoki te mokoroa nāna i kakati te kahikatea. While the mokorua grub is small, it cuts through the white pine.

Consider how this whakataukī relates to the children from Motueka South School and Boyan Slat. How are their actions making a significant difference to the mauri of waterways? Re-read the final paragraph in the article.

'Most of all, they've learnt that although some problems can seem huge, it's still possible to make a difference. You might start small, but you can inspire others to join you. That can lead to really big changes – for your school, community, country, and your planet.'

What small actions can you and your whānau take to improve the health of your local waterway? What actions might your school be able to take? Brainstorm a list of ideas.



# Day 4 activity 2: The 5 Rs of waste management

#### Notes for teachers and whānau

In this activity the learner will explore the 5 Rs of waste management by reading an article. They can consolidate their learning by playing the 5R game from Figure It Out with family members.

# I am learning to: manage my waste responsibly by considering the 5 Rs of waste management.

- What do I need?
- 30 minutes
- home learning book and a pen/pencil
- Look in your pack for a copy of the 5 Rs game copy master https://nzmaths.co.nz/sites/default/files/The5Rs\_CM.pdf
- Optional digital if you have a device, try the LEARNZ quiz <a href="http://activities.learnz.org.nz/rv181/rv181-a02-the-5-r-s-of-waste-management/quiz\_html5.html">http://activities.learnz.org.nz/rv181/rv181-a02-the-5-r-s-of-waste-management/quiz\_html5.html</a>

#### Instructions

You are going to talk to people in your whānau about the 5Rs of waste management and then play a game.

#### Your task:

**Task 1** – Consider the 5 Rs of waste management. Talk to people in your house or you can phone whānau and ask them what each of the Rs mean. If you have a device you can read about them on the LEARNZ website at the link above.

In your workbook write down the following five headings:

- 1. Reduce
- 2. Reuse
- 3. Recycle
- 4. Recover
- 5. Residual management (the last option for waste that can't be used)

Under the headings, write down what each heading means for waste management, and list some ways to manage waste in this way. Choose options that you and your whānau might like to adopt.

**Task 2** - Cut out the cards in the 5 Rs copymaster and follow the game instructions. You might need to share your new knowledge of the 5 Rs with your family to help them select the correct answer.

How to play 5Rs

- Shuffle the cards and distribute them evenly between players
- The person with the star at the top of their card starts the game by asking the question on that card.
- The person who has the answer reads it out and then asks the question at the bottom of their card.
- The game finishes when the answer is a star.

### Day 4 activity 3&4: Plastic in my kitchen

#### Notes for teachers and whānau

Today your learner is going to investigate the amount of single use plastic in your kitchen and suggest ways to reduce your plastic consumption as a whānau. You can support them by talking about the types of packaging and how often you purchase each item. The activity will take an hour so can be stretched across 2 half hour blocks.

I am learning to: survey my family's consumption of single use plastic and write a letter with ideas on managing our plastic usage and waste.

What do I need?

- 60 minutes
- home learning book and a pen/pencil
- graph paper and a calculator

#### Instructions

Look at food containers and packets in your pantry and fridge that are single use plastic.

#### Your task:

**Task 1** – Draw a chart like the one below in your book.

- Find single use plastic containers and packets in your pantry and/or fridge and fill out the chart.
- Talk to whoever does the shopping to find out how often they buy each item.
- Find out a weekly total and then estimate how much single use plastic your family consumes in one year. Remember there are 52 weeks in a year, so you need to multiply the weekly total by 52 to calculate your annual consumption.

Read the example items to help get you started:

Item	Type of packaging	Amount of packaging in relation to amount of product	Recyclable?	How many do we buy each week?	Estimate of annual consumption
Strawberry yoghurt pots - 12 pack	12 Individual containers with foil lid	Large	Yes	1	1 x 52 = <b>52</b>
Packet of chocolate biscuits	Plastic tray and plastic wrapping	Medium	Yes	3	3 x 52 = <b>156</b>

Graph how much plastic your family uses in one year. Answer these questions:

- Which item uses the most plastic and how many of these do we buy each year?
- If you put all of the single use plastic from this item into one area, how much space would it take up? Would it fill your bathtub? car? bedroom?
- Is there another way to buy/consume this item that doesn't use as much plastic?
- Does this item need to be packaged in this way?

**Task 2** – Write a letter to your whānau with ideas on how you can work together to manage your plastic waste more effectively. Explain what you have learned this week and why careful waste management protects our waterways.

Remember to do your end of day reflection and wellbeing activities (see p. 6 & 8).

# Day 5 activity 1: The Starfish Story

#### Notes for teachers and whānau

Today your learner will reflect on the week's learning and look at ways to take action as an individual and a community to nurture the mauri (life force) of their local waterway.

Note that today our Inquiry focus is "present – share learning about the theme." The key question that your learner will explore is:

What actions can we take together?



I am learning to: apply the message of a story to my learning and discoveries.

What do I need?

- 30 minutes
- home learning book and a pen/pencil

Remember to start your day right (see p. 7).

#### **Instructions**

You have explored the impact of plastic on the health of our oceans, rivers, lakes, and streams and discovered ways you can be a kaitiaki of your own local waterway. Read the Starfish Story and write your own short story with yourself as the main character.

#### Your task:

**Task 1** – **Read** the *Starfish* story to yourself or to someone in your whānau.

Original Story by: Loren Eisley

One day a man was walking along the beach when he noticed a boy picking something up and gently throwing it into the ocean.

Approaching the boy, he asked, "What are you doing?"

The youth replied, "Throwing starfish back into the ocean. The surf is up, and the tide is going out. If I don't throw them back, they'll die."

"Son," the man said, "don't you realize there are miles and miles of beach and hundreds of starfish? You can't make a difference!"

After listening politely, the boy bent down, picked up another starfish, and threw it back into the surf.

Then, smiling at the man, he said... "I made a difference for that one."

Think about the message in the story. What is the storyteller saying about the actions of one person? The starfish story is a good reminder that even **the smallest thing can make a difference.** 



#### Read this whakataukī:

Ka pū te ruha, ka hao te rangatahi. The old net is cast aside, while the new net goes fishing.

Old approaches (old nets) are no longer useful, it is time for new methods (new nets) to take over.

- How does this whakataukī relate to the actions of the boy in the story?
- How does his attitude towards the starfish make a difference?

Think about your learning this week. What new actions and ideas can you take as an individual person and a family to improve the health of waterways in your community and manage your waste more effectively? Look at the ideas that you have listed in your home learning book over the week. Can you add any further ideas?

**Task 2 – Write** a short story that has the same message as the Starfish Story with you as the main character. What action could you be taking in the story? You might be collecting rubbish at your local waterway, making your own yoghurt at home, or taking your soft plastics to the supermarket. What difference are you making by your actions? Read the example story below for inspiration:

One day an old lady was walking into the supermarket when she saw a young girl putting a large bag of soft plastic into the recycling bin.

Approaching the girl she asked: "What are you doing?"

The girl replied, "I'm recycling the soft plastic that our family has used this week. It gets recycled into useful products and is kept away from our oceans, rivers and streams."

The old lady laughed to herself and said, "Do you realise that there are millions of plastic wrappers that do not get recycled and end up in our waterways. You can't make any difference."



After listening politely, the young girl picked up a piece of plastic that had fallen out of the recycling bin and put it into the bin. Smiling at the old lady, she said: "I've stopped that piece of plastic getting into our water."

Share your story with your teacher, classmates and family members.

# Day 5 activity 2: Upcycling a plastic bottle

#### Notes for teachers and whānau

For this activity, your learner will upcycle a plastic bottle into something useful. They will write instructions for their completed project to share with family and friends. This activity will take about one hour so it can be stretched across two half hour blocks.

I am learning to: upcycle a plastic bottle into something useful and write instructions showing the steps that I took.

What do I need?

- 60 minutes
- Home learning book
- Plastic bottle and other tools and materials depending on the upcycle project

#### Instructions

Choose an upcycling idea from the list and turn a plastic bottle into something useful. Write out instructions for your project with illustrations to share with family and friends.

#### Your task:

**Task 1** – Look at the 3 ideas to upcycle a plastic bottle and choose one to make yourself. Check that you have the required equipment before choosing.

Idea	What you need
Make a bird feeder	2 litre bottle
Turn a clean 2-litre bottle on its side and cut a 10 cm x 8 cm	bird seed
hole in it. Half fill the bottle with bird seed. Hang it horizontally	wire or string
with wire or string.	scissors
Make a plastic bottle lantern	2 litre bottle
Cut off the top of a clean 2-litre bottle, then fill it with fairy lights	fairy lights
and wrap the whole thing with a layer of cut paper. Decorate	paper
the paper before sticking it on. You could use paint, colourful	glue or Sellotape
tissue paper, or felt pens.	paint and/or tissue
	felt pens
Make a pen pot	2 litre bottle
Cut the top third off a 2-litre bottle and throw it away into your	paper
recycle bin. Use the bottom part of the bottle as a container for	glue or Sellotape
your pens and pencils. Wrap the whole thing with a layer of cut	paint, tissue, and/or
paper. Decorate the paper before sticking it on. You could use	washi tape
paint, colourful tissue paper, washi tape or felt pens.	felt pens

**Task 2** – Write instructions to explain how you upcycled a plastic bottle into something useful. Make sure that you describe every step and include drawings that show what to do. Share your instructions with people in your community. If you can, take photos of your finished creation to accompany your instructions.

# Day 5 activity 3: Kaitiakitanga poster

#### Notes for teachers and whānau

For this final activity, your learner will make a poster encouraging people to care for our waterways. They might want to highlight the danger of plastic for marine life, educate about recycling, or promote being a "tidy kiwi". You can by talking about the message they want to share, and what images and words will send a powerful message.

#### I am learning to: share a kaitiakitanga message in a poster using images and text.

What do I need?

- 30 minutes
- A large sheet of paper
- Pencil, and felt pens or paint

#### Instructions

Your final task is to make a poster that encourages people to care for our waterways.

#### Your task:

**Task 1** – View a range of posters on the next few pages that promote kaitiakitanga. As you view each poster answer the following questions:

- What do you notice first when you look at the poster? What stands out and why?
- What images have been used?
- What words have been used? How many words are there?
- What colours have been used?
- Is the message clear? Why or why not?
- What do you like the most about the poster?
- Would you change anything about it?

**Task 2** – Design and create your own poster to encourage people to protect our waterways. What is your main message going to be? Is your poster going to share:

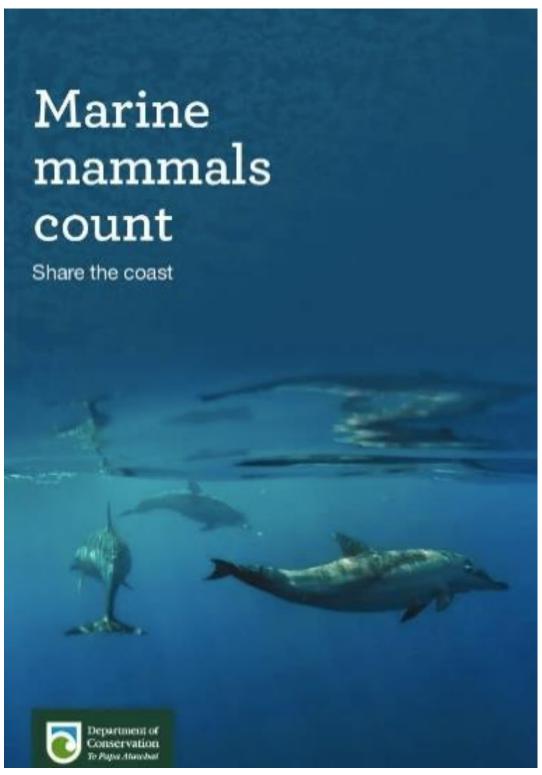
- the beauty of our marine life?
- the impact of plastic on marine life?
- information about one of the 5 R's?
- the power of one person's actions?
- an anti-littering message?

Consider what words and images you can include. Discuss your ideas with whānau members.

Create your poster using a large piece of paper and felt pens or paint. Alternatively you could make your poster on the computer using a platform like Google Slides or Microsoft Office.

Scan, or take a photograph of your completed poster and share it with friends, family, your school, and community. You might like to send copies of your poster to your local shops, library, and council and ask them to display it.

Remember to do your end of day reflection and wellbeing activities (See p.6 & 9).



https://www.doc.govt.nz/about-us/science-publications/conservation-publications/native-animals/marine-mammals/marine-mammals-count-brochure/



https://kcc.org.nz/portfolio/be-fantastic-use-less-plastic/



https://zerowaste.co.nz/submission-plastics/

# **Context 2: Cultural Sustainability**

Over the next five days we will investigate the theme of sustainability by looking at how we can understand and work towards cultural sustainability.

# Cultural sustainability

Sustainability | Toitū

# Day 6 activity 1: What makes me who I am?

#### Notes for teachers and whānau

Culture includes the beliefs, traditions, arts, and way of life of a group of people. The first task is a challenging thought exercise. Learners would benefit from discussing this with someone.

Our inquiry focus for today is "getting started" which includes generating questions, activating prior knowledge, and introducing the theme. The key question is:

How do we understand and appreciate our own and other cultures?

#### I am learning to: identify different things that make up my culture.

What do I need?

- 30 minutes
- Optional digital Cultures and traditions.
   https://www.youtube.com/watch?v=FOEB87B0Zas

#### Instructions

We are going to explore what makes us who we are.

Read this whakataukī to someone in your whānau and talk about what it means:

E koekoe te tūī, e ketekete te kākā, e kūkū te kererū The tūī chatters, the kākā cackles, and the kererū coos

This whakataukī speaks of diversity – each manu has its own distinct sound, but together, they create the sounds of the forest. It can be related to the cultural diversity of people who call Aotearoa New Zealand their home.

Choose one of the following two tasks to complete in your home learning book.

#### Your task:

Task 1 – **Consider** the question "What makes me who I am?"

**Complete** a brainstorm of your thinking in your home learning book. Put the question in the middle and your thoughts around the outside. Then see if you can branch out from those thoughts even further.

**Circle** the 5 most important things which make up who you are – your identity.

Task 2 – **Think** about these questions and **answer** them in your book:

- What language/s can you speak?
- How do you dress? Do you have any special clothing you wear often?
- How do you greet your friends and whānau?
- What do you do on the weekend?
- What is your favourite food?
- How are visitors welcomed into your home?
- How do you eat your main meal each day?
- How does your family celebrate?



# Day 6 activity 2: My pepeha

#### Notes for teachers and whānau

Pepeha (or mihi) is an important cultural practice in Aotearoa for Māori and increasingly non-Māori. It is a way that we can introduce ourselves, our families, and where we are from. Talk with your learner about the important connections in their life.

# I am learning to: make connections between the author's experiences and my own.

What do I need?

- 30 minutes
- Look in your pack for a copy of Tōku Pepeha
   https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-53-Level-2-2016/Toku-Pepeha

#### Instructions

In this article the author Parerukawa is talking about her pepeha. A pepeha is a way to introduce yourself, your family, and where you are from. You might already have a pepeha, or it might be new to you. Pepeha is all about connection – to each other and to our environment. As you read the text look for the connections for the author and what it makes you think about in your own life.

#### Your task:

Task 1 – **Copy** this table into your home learning book

What I know about pepeha	What do I want to know?	What I have learned	

In the first column write down everything you know about pepeha. This may be a little, or it may be a lot. In the second column write down questions you have about pepeha.

#### Task 2 – **Read** *Tōku Pepeha*

As you read, think about:

- Why is Pareraukawa's pepeha important to her?
- How does the pepeha help us to know more about Pareraukawa?
- What does this article make you think about where you are from?

Now fill out the third column in the table with notes about what you have learned from reading the text.

Task 3 – **Create** your own pepeha using the text to help you.

Or if you already have one find someone to tell it to.

Ko	te waka.
Ko	te maunga.
Ko	te awa (or roto or moana).
Ко	te iwi.
Ko	te hapū.
Ко	te marae.
Ko	rāua ko ōku mātua.
Ко	tōku ingoa.

# Day 6 activity 2: Where on Earth?

## Notes for teachers and whānau

Learners investigate how graphs display information. Encourage them to look for the elements that make graphs easy to understand – titles, labels, size, width, and spacing.

I am learning to: think critically about different displays used to present statistical information.

What do I need?

- 30 minutes
- Your home learning book, pencil, and ruler

#### Instructions

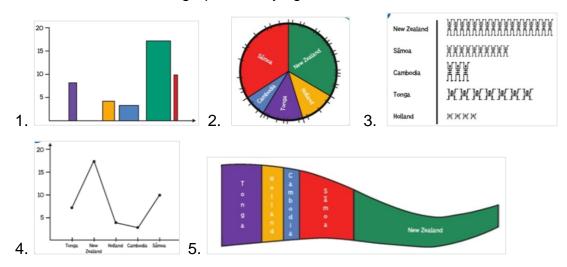
Read the maths activity carefully. Your task is to identify the elements of displaying data that helps us to understand the information. Notice what is missing from the graphs.

# Your task:

Room 4 are investigating what countries different family members were born in. They write their findings in a tally chart like this.

Country of birth	Number of people	
Tonga	<del>    </del>	
New Zealand	<del>              </del>	
Holland		
Cambodia		
Samoa	<del>         </del>	

Look at the 5 graphs below that the students made to display the data. Is it easy to understand what these graphs are trying to tell us?



Task 1 – Suggest how each graph could be improved. Consider:

- What does this graph tell me?
- What is missing from this graph?
- Which type of graph is the best way to display this information?

Task 2 – Find out where 10 of your friends and 10 family members were born. Make a tally chart and then display the data in a graph. Remember to use a title and labels.

# Day 6 activity 3: Mythical creatures

## Notes for teachers and whānau

Learners read an article about mythical creatures and monsters from around the world. You could help your learner locate the different countries on a map and talk about what you know about those countries and cultures.

# I am learning to: think about the different ways cultures express their beliefs through storytelling.

What do I need?

- 30 minutes
- Look in your pack for a copy of *Monsters* <u>https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-May-2020/Monsters</u>

# Instructions

Myths and legends are one way that people express their culture. In this activity you will read a non-fiction text to find out about mythical monsters in some cultures.

## Your task:

Read Monsters.

**Consider** these questions and write your answers in your book.

- Why do you think so many cultures have stories about monsters?
- Look in the text for the reasons that the author thinks there are so many stories about monsters (see page 7) and summarise this in your book.
- What other mythical monsters do you know from your culture?

**Choose** from these activities. You can complete as many as you like.

- 1. Choose two (or three) of the monsters and **compare** them using a Venn diagram.
- 2. Draw each of the monsters in your book and describe their qualities and features. Decide whether they are good or bad and why you think this. You could set this out in a table.
- 3. **Write** a fiction story featuring one of the monsters, for example "A day in the life of the bunyip" or "when the sphinx came to visit."
- 4. **Design** your own monster and write bullet point facts about it.
- 5. **Invent** an indoor or outdoor game based on one of the monsters and write the instructions for how to play the game.



# Day 7 activity 1: Korero of the waka

#### Notes for teachers and whānau

Yesterday we introduced the concept of 'culture', today we look at how Māori values, traditions, and stories are represented through visual arts. Learners may need help with kupu Māori in the text.



Note our Inquiry focus for today is "explore, investigate, and discover" which includes choosing and evaluating information, and thinking critically. The key question is: **How are Māori values, traditions and stories represented through the visual arts?** 

I am learning to: find information in a text about the cultural practice of whakairo.

What do I need?

- 30 minutes
- Look in your pack for a copy of The Kōrero of the Waka
   https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-November-2020/The-Korero-of-the-Waka

Remember to start your day right (see p. 7).

#### Instructions

Today we are going to look at some values, traditions, and stories from the Māori culture. This article explores whakairo (carvings) as an artform as well as a way to tell a story. In the *Pepeha* article yesterday Pareraukawa told us about how her tūpuna arrived in Aotearoa on two waka. Waka is important in Māori culture because it connects you to a place and a people. Read *The Kōrero of the Waka* to find out more.

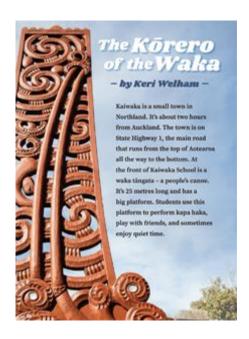
## Your task:

**Read** *The Kōrero of the Waka* and look for the answers to these questions:

- What is special about a carved waka at the entrance to the school?
- What stories are told through the carving?
- Extension identify and explain the features of the waka that have a special meaning to the school and the community.

**Consider** what a carving for your kura might look like.

- What stories could be told?
- What different elements could be included to reflect these stories? You could ask your family, teacher, and classmates to help contribute ideas.



**Sketch** a carving to represent your kura.

Write an explanation of the stories and connections that your carving tells.

# Day 7 activity 2&3: The maths of tukutuku panels

## Notes for teachers and whānau

The wharenui on a marae is named after an important ancestor of the tangata whenua. Carvings and designs tell the story of that ancestor. This session looks at the artform of weaving tukutuku panels. It is an opportunity to learn about sequential patterns.

# I am learning to: find and apply rules for sequential patterns in tukutuku designs.

What do I need?

- 60 minutes
- Grid paper
- Look in your pack for a copy of Weaving Tukutuku
   <a href="https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-55-Level-2-2017/Weaving-Tukutuku">https://instructionalseries.tki.org.nz/Instructional-Series/Junior-Journal/Junior-Journal-55-Level-2-2017/Weaving-Tukutuku</a>
- Optional digital Types of tukutuku designs https://teara.govt.nz/en/interactive/43489/types-of-tukutuku-designs

#### Instructions

Tukutuku panels are a traditional Māori artform and are used to decorate wharenui (Māori meeting houses). You can read more about this artform in *Weaving Tukutuku* and if you have access to the internet, you can see some of the designs online.

#### Your task:

Task 1 – Read Weaving Tukutuku

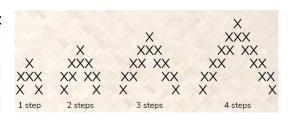
Create this chart in your book and take notes from the text.

What tukutuku panels are and how they are used	How the panels are made	What the panels symbolise.	

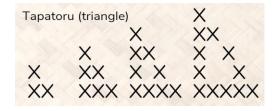
Task 2 – Now that you know a bit more about the artform of weaving tukutuku let's look at the maths of these designs. Draw these designs and answer the questions in your book.

This is the poutama design (stairway to heaven):

- 1. Find some quick ways to count the number of crosses in each step.
- 2. Draw the next step in the pattern
- 3. How many crosses would the 10-step stairway have?



Find the next step in these patterns and how many crosses in the 10th step of each.



# Day 7 activity 4: Symbolism in art

#### Notes for teachers and whānau

Artforms are used to convey what is important to a culture. Today your learner will explore the concept of symbolism in culture. Talk to them about the symbolism in your own culture and everyday life.

# I am learning how different ideas and values can be expressed through symbols and colour.

What do I need?

- 30 minutes
- Pens, pencils, or felts

## Instructions

From your activities today reflect on the different tukutuku panels and what they symbolise. How are ideas and stories conveyed through the design and colour?

Symbolism is where something 'stands for' or 'shows' something else for example colours, shapes, animals, and plants. Consider:

- Why is a stop sign red?
- What might you put on a picture to show you love someone or something?
- What animal symbolises being brave?
- What did the monsters symbolise in the article you read yesterday?

# Your task:

Task 1 – Copy this chart into your book and **brainstorm** all the things that you can think of that can symbolise something. Draw or write your 'things'.

'Thing'	What it can symbolise
The kaokao pattern	The arms of a warrior doing a haka
The colour red	Danger – like in a stop sign
•	Love

Task 2 – **Design** a symbol that means something to you. It could represent a favourite place or person, or something to represent parts of your pepeha.

Put on some music, find somewhere comfortable and enjoy drawing shapes, patterns, and using colour to represent something important to you.

Consider the different artforms you have explored today from Māori culture.

Share your symbol with someone in your whānau and see if they can interpret its meaning. Tell them about what you have learned about the symbols in Māori culture.

# Day 8 activity 1: Ngatu: Keeping the tradition alive

## Notes for teachers and whānau

This reading builds an awareness of how traditional Tongan cultural practices are sustained in a New Zealand urban environment. Talk to your learner about how some items can carry special significance to your family, culture, community, or country.



Note our Inquiry focus is "making meaning" and the key question your learner will explore is:

How are different Pacific Peoples cultures represented through the visual arts?

I am learning about practices that carry special importance to families, cultures, and communities.

What do I need?

- 30 minutes
- Look in your pack for a copy of Ngatu: Keeping the tradition alive <a href="https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-June-2018/Ngatu-Keeping-the-Tradition-Alive">https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-2-June-2018/Ngatu-Keeping-the-Tradition-Alive</a>

Remember to start your day right (see p. 7).

## Instructions

You will read a text to find out how ngatu is made and how a traditional practice is kept alive. You will then make connections to your life and family traditions.

# Your task:

Task 1 – If you have an atlas or the internet **find** Tonga on a map (or Google maps).

- How far away is it from New Zealand?
- See if someone in your whānau can help you investigate how many people with Tongan heritage live in Aotearoa NZ.

Task 2 – **Read** *Ngatu: Keeping the tradition alive.* Think about:

- Look closely at the images and think about what is involved in making ngatu
- Can you identify any symbolism in the ngatu?
- Why do you think ngatu is used differently now than it was in the past?

Task 3 – **Interview** people in your whānau to find out about your family traditions and take notes in your book.

- What are some important traditions in our family?
- Why are they so important?
- How do we keep these traditions alive?

Task 4 – **design** a brochure about an important tradition in your family. Imagine the brochure is for people in your family in the future. You want to help them understand the significance of your tradition and keep it alive.

# Day 8 activity 2: Maths - reflection

## Notes for teachers and whānau

Learners are exploring reflectional and translational symmetry in Pacific Island patterns. You could help your learner by looking around your house for other examples of reflection or have them create reflection patterns with physical items like spoons.

# I am learning to: investigate reflectional and translational symmetry

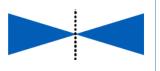
What do I need?

- 30 minutes
- Optional digital: watch Home learning TV Middle maths: Tongan Ngatu https://www.tvnz.co.nz/shows/home-learning-tv/episodes/sage-9-11-e295

# Instructions

We are investigating patterns from two Pacific countries – Niue and Tonga. Most patterns from Pacific art are hand drawn and it is rare to find completely straight lines. In this activity draw the shapes and lines without the help of a ruler. We are exploring reflectional symmetry where a pattern is reflected.

Reflectional symmetry is where a shape is reflected to be the mirror image. The triangle has been reflected on the dotted line.



Translational symmetry is when a shape shifts or slides without rotating or reflecting. The triangle has been translated below the other.

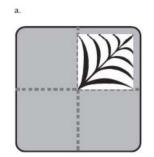


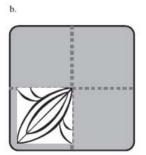
# Your task:

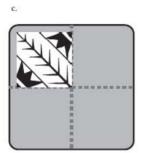
Task 1 – Reflectional symmetry. Can you complete the patterns?

Here are three patterns from Niue that have reflectional symmetry. Unfortunately, they are incomplete.

Copy the patterns into your book and complete the missing



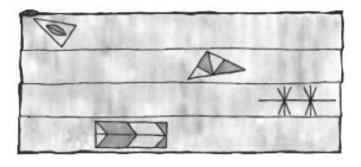




quadrants. If you have a mirror you could put it on the dotted lines to help you see how the pattern piece would be reflected.

Task 2 – Translational symmetry. Can you complete this pattern?

Tongan tapa, called ngatu, is made up of strips of bark cloth. The same pattern is used on each strip of bark cloth. Can you translate each shape onto the other three strips below it to complete this bark cloth pattern?



# Day 8 activity 3&4: Art and maths – tivaevae

## Notes for teachers and whānau

Tivaevae is a cultural artform from the Cook Islands. Your learner will first explore units of area in a tivaevae cloth. Encourage them to look for the equation to help solve the problem rather than counting the squares. Next, they will follow instructions to make a tivaevae. It is important when they cut out the shape that they keep both the parts they cut out and the surrounding paper as both parts form the pattern.

# I am learning to: work out units of area and follow instructions.

What do I need?

- 60 minutes
- 2 pieces of different coloured paper, felt pen, scissors, and glue.
- Optional digital: Watch the video Stories sewn in quilts http://talesresource.tepapa.govt.nz/resource/081.html

# Instructions

Tivaevae are beautiful hand-sewn Cook Islands Māori bedspreads. They are for special occasions and tell a story. If you have access to the internet, you can watch the video *Stories sewn in quilts* to learn more about the stories told by two tivaevae.

# Your task:

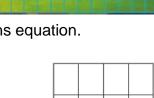
Task 1 – Tivaevae karakara

Māmā Tapaeru has made this tivaevae karakara to give at a wedding in the Cook Islands community hall. Answer these questions in your book:

- How many square pieces of cloth did she need to make her tivaevae karakara?
- How many pieces did she need for the border on her tivaevae karakara
- How many squares are used for each frangipani flower?
- Explain how you could work these questions out with a maths equation.

## Task 2 – Design your own Tivaevae

- 1. Fold each piece of paper in half lengthways
- 2. Open it out and fold it in half the other way, fold it in half again.
- 3. Open out your paper you should have 8 boxes cut these out.
- 4. Decide on the shape you want to use. The inside of the shape must start from the corner of the paper. Cut all the pieces the same way. You will have 16 pieces in each colour.
- 5. Put the shapes down on the sheet of paper to make your pattern.
- 6. When you have a pattern you like, glue the pieces in place.
- 7. When the glue is dry add more patterns with a felt pen.







# Day 9 activity 1: Reading

#### Notes for teachers and whānau

There are two articles to choose from depending on the ability of your learner. They are about tatau (tattoo) a tradition in Samoan culture – a marker of identity and link to their heritage.



Note our Inquiry focus is "going further, deeper". This may include diving deeper through discussions and exploring further contexts, taking action, thinking critically, and drawing conclusions. The key question is:

How do people express their own cultural identity?

# I am learning how tatau is used as an important way of expressing heritage in Samoan culture.

What do I need?

- 30 minutes
- Look in your pack for a copy of:
   For the Ancestors (proficient readers)
   https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal/School-Journal-Level-3-November-2019/For-the-Ancestors
   Keeping our stories alive <a href="https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal-Story-Library/Keeping-Our-Stories-Alive">https://instructionalseries.tki.org.nz/Instructional-Series/School-Journal-Story-Library/Keeping-Our-Stories-Alive</a>
- Optional digital: watch Tatau Sāmoan tattooing https://collections.tepapa.govt.nz/topic/2946

# Remember to start your day right (see p. 7).

#### Instructions

Both of these articles are about the practice of traditional Samoan tatau/malu (tattoo). You can choose to read one or both of these. There is also an optional video to watch.

#### Your task:

Task 1 – Read this Chinese proverb:

To forget one's ancestors is to be a brook without a source, a tree without a root. Chinese proverb.

What do you think this means? Explain your thoughts to someone in your whanau.

Task 2 – Read Keeping our stories alive or For the ancestors

Culture isn't just about food, clothes, music, or art – it involves everyday routines, practices, values, and beliefs that families pass down through generations.

- **Talk** to older people in your whānau about the skills, knowledge, values, stories, or beliefs that are passed down in your family. Take notes in your book.
- **Write** a story about a tradition, story, or belief that is handed down in your family and why you think this is important or valuable.
- **Create** a tattoo design that represents your story.

# Day 9 activity 2: Expressing our culture through objects

## Notes for teachers and whānau

People's cultural practices can vary but reflect similar purposes. Learners will explore Māori pendants and their meanings. You could have a discussion about important pieces of jewellery and ornaments in your family and their meaning.

I am learning about how cultural values and beliefs can be expressed through precious objects and adornments.

What do I need?

- 60 minutes
- Optional digital: Hei Tiki http://talesresource.tepapa.govt.nz/resource/002.html

# Instructions

We have looked at many ways that cultures can be expressed through art – stories, weaving, carving, textiles, and body art. Today we will look at jewellery. Watch the video about Hei Tiki or read the transcript below. Te Papa have several Hei Tiki that you can view, each one is a memorial to ancestors. They are traditionally passed down through families from parent to child.

# Transcript - Tales from Te Papa

Imagine a treasure that could fit in the palm of your hand but had the strength of 10 chiefs combined. Well meet these *Hei Tiki*. The term *Hei Tiki* comes from *Hei* meaning to suspend and *Tiki* refers to the first man created by the god Tāne. So Hei Tiki are pendants worn around the neck. They are human figures that reference ancestors. They are carved from whale bone, wood, or more usually pounamu. They may look small, but they've got loads of mana, after all these taonga carry the strength and stories from generations of whānau who have been privileged enough to wear them. Each of these Hei Tiki have their own story. If only they could talk!

"This Hei Tiki once belonged to Guide Te Paea Hingerangi. She was a famous guide at lake Rotomahana and the pink and white terraces around Rotorua. Mount Tarawera erupted on the 10 June 1886 which could be heard in Auckland it was so loud and devastating. And Te Paea Hingerangi had a vision about 11 days before the eruption. She saw the waters of Lake Tarawera rise, and she also saw a ghostly waka on the lake. That first vision she saw one person on the waka, but the next time she saw the vision it was full of 13 people, and they all had dog-like heads. This was obviously not a good sign, and something was coming. She warned about 62 of the villages to come and shelter in her whare and sure enough that night Mount Tarawera erupted. A lot of the other buildings were destroyed. Unfortunately, about 150 tribal people of that region perished in the eruption, but she managed to save those villagers in her house."

Although these Hei Tiki (on display in Te Papa) may never be worn again, their stories will continue to be shared, just like the Hei Tiki worn today. So, if you are after a good story, find someone with a Hei Tiki around their neck!

# Your task:

Task 1 – Answer these questions in your book:

- 1. Use your imagination what do you think the single person in the waka becoming 13 people with dog like heads signified?
- 2. At the beginning of the transcript it is said that the Tiki has the strength of ten chiefs combined. What do you think this means?
- 3. Hei Tiki have *mana* and are *taonga* what do you understand about these kupu Māori? (Māori words)

Task 2 – Have a hunt around your home to see what artforms are on display that represent your family's cultural heritage.

- Take photos of these items or draw them in your workbook.
- Write about the significance of each of the artforms (pictures, ornaments, jewellery, carvings, weaving, etc) for your family.

# Day 9 activity 3: Representing our culture

# Notes for teachers and whānau

This activity requires the use of an oven and may require adult support. Learners will be making a design that represents something in their family's cultural heritage and then making this design as a pendant out of dough.

# In this activity I am learning to express something from my family's cultural heritage through an ornamental design.

What do I need?

- 30–60 minutes
- Making pendants Plain four, salt, warm water, baking paper, string, oven
- Polyurethane spray if available to prolong the life of the pendant
- Optional digital: Carving meanings <a href="https://www.bonz-n-stonz.co.nz/whatwedo/pounamu-pendant-meanings/">https://www.bonz-n-stonz.co.nz/whatwedo/pounamu-pendant-meanings/</a>

# **Instructions**

Each pendant carving shape has a different meaning in Māori culture, like the Hei Tiki you have just learnt about. Use the link above or the table below to explore the significance of pounamu carvings and the meanings behind the different designs.

Design	Symbolism
Toki	Shaped like an axe head – determination, control, strength, courage, and honour
Fishhook	Strength, determination, peace, prosperity, and good health
Shark tooth	Masculinity, protection, and strength
Koru	Shaped like an unfurling fern frond – new life, growth, strength, harmony, and peace
Pikorua	Shaped like a twist – the path of life and love, friendship for eternity
Roimata	Shaped like a drop – knowledge, confidence, and independence.  Sometimes called the comfort stone and helps to heal
Manaia	Shaped like the head of a bird with a human body and fishtail representing the sky, earth, and sea – power, protection, good luck, a spiritual guardian
Mere	Shaped like a war club – authority and courage
Whale tail	Protection and strength, respect for the sea, safety when travelling over water.
Porohita	Shaped like a disc – the never-ending circle of life, endless opportunities.

# Your task:

You are going to make a pendant to represent something about your family's cultural heritage. Think about the artefacts you found in your hunt around your house. What stories do these artefacts tell for your family? Decide on a design that you could make into a piece of jewellery to represent an important part of your culture.

- Task 1 Draw the design in your workbook and write a paragraph about its symbolism.
- Task 2 Follow the instructions below to make a pendant out of dough.

# Ingredients

- 4 cups all-purpose flour
- 1 cup table salt
- 1 ½ cups warm water
- Paint or glitter if you want to decorate your pendant
- String or ribbon

#### Instructions

To make dough

- 1. In a large bowl, whisk together the flour and salt.
- 2. Slowly stream in the water while stirring until it comes together.
- 3. Finish mixing together with hands. Knead until dough is soft, about 5 minutes.

# Shape your pendant

- 1. Place half of the dough between two large pieces of baking paper. Roll out until 3cm thick. Remove the top sheet of baking paper.
- 2. Carve the dough into your chosen designs. Peel away the excess dough.
- 3. Using a straw or toothpick, poke a hole for hanging the pendant.

# To bake your pendant

- 1. Preheat oven to 150C.
- 2. Bake in preheated over for 1 hour or until hard.
- 3. Once cooled you can decorate and then spray with a light coat of polyurethane spray (to make the pendant last).
- 4. Thread string, wool, or a ribbon through the hole so you can wear your pendant.

# Day 10 activity 1: What is culture?

#### Notes for teachers and whānau

By the end of today your learner will have designed and created a piece of art to represent your family's cultural heritage.

Note that today our Inquiry focus is "present – share learning about the theme." The key question that your learner will explore is:

How might I express my cultural identity through a piece of art?



I am learning to: reflect on my learning and demonstrate my understanding of culture.

What do I need?

30 minutes

Remember to start your day right (see p. 7).

#### Instructions

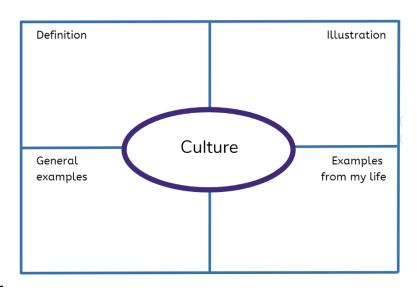
By the end of today you will have created an artwork to represent an element of your family's cultural heritage. We start by reflecting on what we have learned about culture and relate this to our own life.

### Your task:

Task 1 – So what is culture?

Think back over your learning this week. We have been exploring the concept of culture and how it is expressed.

Copy this definition map into your workbook and fill it out to help you reflect on what you have learned.



Task 2 – Read this whakataukī

Inā kei te mōhio koe ko wai koe, I anga mai koe I hea, kei te mōhio koe, kei te anga atu ki hea.

If you know who you are and where you are from you will know where you are going.

What does this whakataukī mean to you?

- Write the whakataukī and a paragraph about what it makes you think about under your concept map.
- How does the whakataukī connect to the concept of culture?

# Day 10 activity 2: The journeys of our ancestors

## Notes for teachers and whānau

This maths activity encourages learners to think about how our ancestors all travelled to Aotearoa from somewhere else. Talk about where your ancestors came from.

# I am learning to: follow compass directions and interpret a scale map

What do I need?

- 30 minutes
- Ruler

## Instructions

All of our ancestors have travelled to Aotearoa from somewhere else. This enables us to have many cultures to celebrate in our country. This maths activity takes us back 1000 years to travel from Hawaiki, the ancestral home of Māori to Aotearoa.

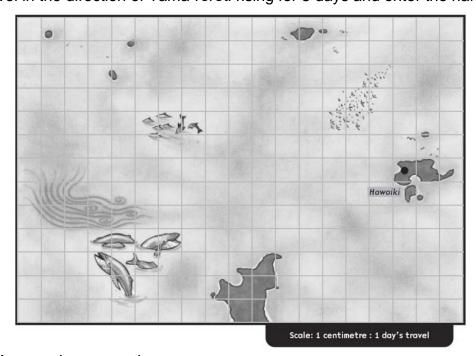


# Your task:

Māori navigated using the stars. This star compass shows where the stars Matariki, Tautoru, and Tama-rēreti rise and set.

Task 1 – Using the star compass **plot** the journey of the waka on your map:

- i. From Hawaiki, travel in the direction of Toutoru setting for 6 days
- ii. Travel in the direction of Matariki setting for 4 days.
- iii. Travel in the direction of Tama-rereti setting until just through the strong currents.
- iv. Travel in the direction of Toutoru rising until you are just past the whales.
- v. Travel in the direction of Tama-rereti rising for 3 days and enter the harbour nearby.



Task 2 – Answer these questions:

- 1. When you sailed past the whales, were they on your right or left?
- 2. Once you reach your destination, how many days did the journey take?

# Day 10 activity 3: Exploring my culture

#### Notes for teachers and whānau

Learners will benefit from a discussion about what they have learned about culture in general and their own family cultural heritage to inform their final creation.

I am learning to: reflect on my family's cultural heritage and think about how I might communicate this with others.

What do I need?

30 minutes or as long as needed

#### Instructions

In this lesson and the next you will plan and create a cultural artefact to symbolise your family's cultural heritage.

# Your task:

Task 1 – Interview your family members and friends to find out if and how they express their own cultural identity through the arts.

- Do they make traditional handcrafts and/or artefacts such as tapa cloth or carvings?
- Do they have a cultural tattoo?
- Do they wear clothing that reflects where they are from?
- Do they wear a piece of jewellery or other adornment that represents their culture or heritage?
- Do they play music from their homeland?
- Do they take part in traditional dance groups or cultural groups?
- Do they have art or ornaments in their home that reflect their heritage?
- Do they take part in cultural festivals that are held?

You could use a chart to capture your information:

Family member	Culture they identify with	Examples they provide

Task 2 – Make a plan for a piece of art that you can make by yourself or with your whānau. You could create a family tapa cloth or a collage, or any other artefact inspired by your learning this week.

#### Think about:

- How might you express your own cultural identity through a piece of art?
- What symbols, patterns, stories, colours, flora, fauna, and traditions are part of your heritage? Collaborate with family members to think of ideas.
- What materials do you have available to you that you could use?

Task 3 – Draw a sketch of what you are going to make and write a list of the materials you will need to collect. Check with whānau about the materials you plan to use.

# Day 10 activity 4: Symbolising my culture

## Notes for teachers and whānau

Learners will be demonstrating their learning through creating a cultural artefact and a cultural exhibition. If your learner has not spent much time in an art gallery, you might want to talk to them about how art is displayed or look at some virtual galleries online.

I am learning to: use symbols, patterns, colours, and images to express an element of my cultural identity.

What do I need?

- 30 minutes or as long as needed
- Materials identified in the previous activity
- Optional digital: Tauranga art gallery virtual tours https://www.artgallery.org.nz/exhibitions/id/1394

## Instructions

Our week has all built up to this moment – what piece of art will you create (on your own or with your family) to symbolise an element of your culture? What story will your artwork tell future generations of your family?

## Your task:

Task 1 – Carry out your plan to create your artwork.

Task 2 – Write an artist's statement about your artwork. An artist statement is one or more paragraphs explaining the inspiration for the work, what the various elements in the work symbolise, and what the artist hopes the viewer will take away from the display. This will help people to understand the story your work is telling.

Task 3 – Create an exhibition space in your house for your artwork.

- Put your artwork with its description on display
- Gather some of the things in your house that represent your culture and display them in your exhibition space. Remember these are family treasures so make sure you ask before moving them.
- Write an artist's description of these other cultural artefacts.
- Invite your whānau to visit your cultural exhibition.
- Take photos of your exhibition so you can share it back with your class.

