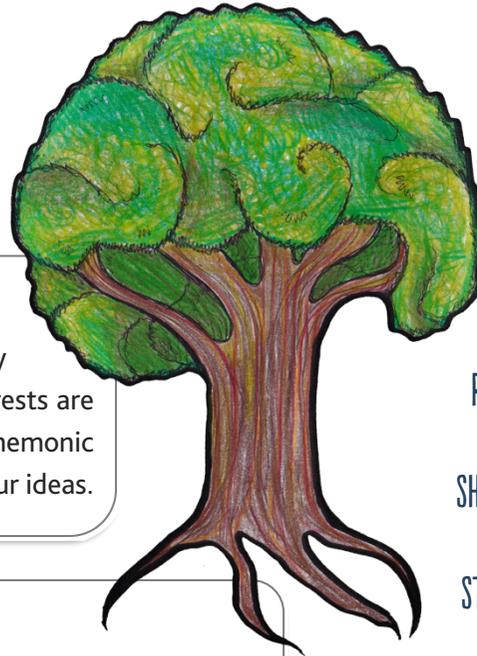


Discover TŌTARA PARK SELF-GUIDED WALK

NAU MAI HARAE MAI

The native bush at Tōtara Park is an example of the rich variety of vegetation that once covered South Auckland. On your walk today you'll learn more about the importance of forest ecosystems, visit the Puhinui Stream and find out about the special plants and animals that live here.



A handy forest mnemonic

FOOD
OXYGEN
RECYCLING WATER
ENJOYMENT
SHADY PLACE TO LIVE
THINGS TO USE
STOPS SOIL EROSION

1 – WHY ARE TREES AND FORESTS SO IMPORTANT?

The seating under the large tōtara tree is a lovely place to stop and think about why trees and forests are so important to people and wildlife. Use the mnemonic in the middle of this page to help you discuss your ideas.

2 – INVESTIGATING TŌTARA TREES

Take a closer look at the young tōtara at the entrance to the park. What do their leaves and bark feel like? Can you spot any animals living on the trunk or visiting the trees? Look for bright red fruit in autumn, they are safe and tasty to eat and attract birds such as tūi.

3 – TŌTARA TIMBER

Huge Māori waka taua (war canoes) up to 40m long and capable of carrying 100 warriors were hollowed out from a single tōtara log. Imagine trying to cut down a tree without electrical or metal tools – how do you think it would have been done? Can you estimate how long a 40m waka would be by stepping out using large paces?

Can you see any trees that tall nearby?



4 – GIANTS OF THE FOREST

The types of conifer that include tōtara, rimu, miro, mataī and kahikatea (our tallest species of native tree) are called podocarps. The timber of many of these trees was highly valued by Māori and European settlers. What do you think they used the wood for? Can you identify any podocarp species growing nearby?

Did YOU KNOW? You can comb your hair with a rimu leaf? Find a leaf strand from the floor, hold both ends firmly then stroke it through your hair!



5 – FEEL THE DIFFERENCE

Before you enter the forest, take a moment to notice the environment around you. Compare the difference in sunlight, temperature, noise and wind before and after you enter the forest. Close your eyes and take a long deep breath through your nose. Does the air smell different in the forest than outside of it? What other differences can you feel?

6 & 7 – WHAT'S LIVING IN THE PUHINUI STREAM?

The Puhinui Stream is about 12km long, running from its source in Tōtara Park, then through the Botanic Gardens before winding its way down to the Manukau Harbour. You might spot tuna (short or long-finned eels), inagna (whitebait/juvenile fish), common and red-finned bully, banded kokapu and kōura (freshwater crayfish). These animals need the water to be clean, clear and cool to survive. How do you think the surrounding forest helps to keep the stream clear and cool? What could you do to help keep our waterways clean?

Did YOU KNOW? Young eels (elvers) migrate upstream to find suitable adult habitat. After many years they return to the Pacific Ocean to breed and die.



8 – TE TAUTU MANŪ – BIRD SPOTTING

Have a rest at the top of the steps and take 5 minutes to look and listen for birds. Close your eyes and each time you hear a new bird call hold up a finger. How many different native birds can you identify?

- | | |
|--|--|
| <input type="checkbox"/> tauhou (silvereve) | <input type="checkbox"/> kererū (wood pigeon) |
| <input type="checkbox"/> riroriro (grey warbler) | <input type="checkbox"/> pīpīwharauoa (shining cuckoo) |
| <input type="checkbox"/> pīwakawaka (fantail) | <input type="checkbox"/> kākā <input type="checkbox"/> tūi |

Which bird could you probably hear calling in the forest at night?

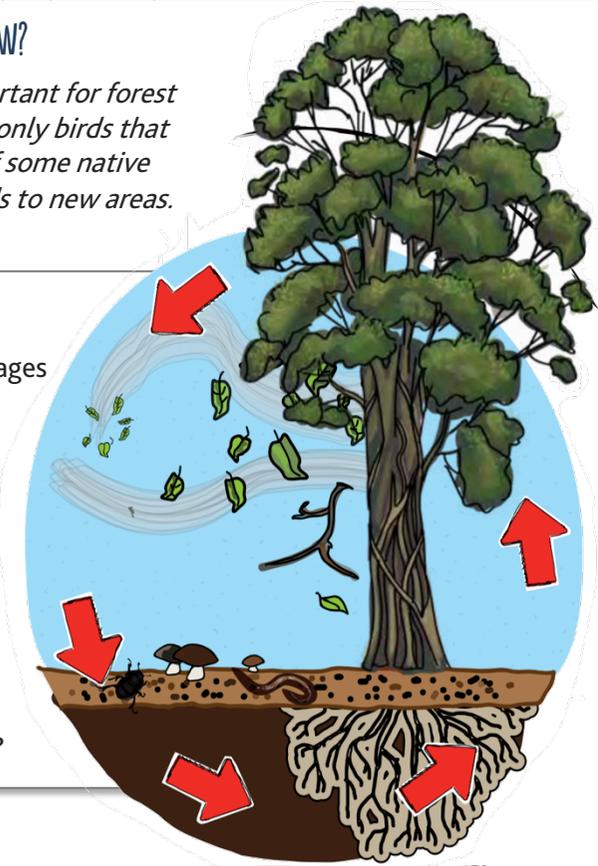


Did YOU KNOW?

Kererū are especially important for forest ecosystems, they are the only birds that can eat the large fruit of some native trees, spreading their seeds to new areas.

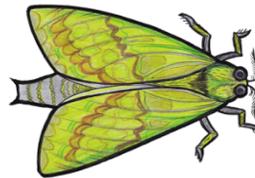
10 – THE LIFE CYCLE OF A LEAF

Look for taraire leaves at different stages of decomposition. Find a green one that's recently dropped, a brown one and one that is very decomposed. Decomposers including millipedes, slaters, worms and beetles break down the leaf litter, turning it into rich soil that can be used to help forest plants grow. Can you find any decomposers living under the leaves?



9 – INVESTIGATING A PŪRIRI TREE

A little further along the track you'll find a large pūriri tree. Tūi and kererū visit to feed on its flowers and fruit. The trunk and branches are riddled with holes made by ngutara (pūriri moth caterpillars) that live inside for up to 7 years before emerging as large green moths.



Did YOU KNOW?

Pūriri moths can have a wingspan of 15cm!

11 – FINDING LIGHT IN THE FOREST

The nīkau grove is a great place to observe different forest layers and the ways that plants compete for space and light to grow.

Look for nīkau seedlings on the forest floor in patches of light where they can grow faster than others. Use your body to create the shapes of a seed, seedling, young plant and a tall nīkau palm.

Did YOU KNOW? It takes nearly 100 years for a nīkau palm to reach 10-15m.



12 – BECOME A PEST DETECTIVE

Look out for coloured tags on trees that help park rangers and volunteers identify where they've placed tracking tunnels and traps to identify and catch pests including rats, possums, and ferrets. Why do you think it's important that pests are controlled?

You can become a pest detective by visiting pestdetective.org.nz where there are lots of fun activities and resources to download.



The tree is a habitat for lots of other animals, For example, can you see any spiders on the trunk?

Look on the ground for fallen flowers, leaves and seeds. The seeds look like small black stones. You could take some home to grow, you'll need to be patient though as seeds can take 6 months to germinate in warm weather.

Use these words to play a game of Te Rākau I-Spy.

- | | |
|-------------------|-------------------|
| hua – berry | pakiaka – roots |
| kākano – seed | putiputi – flower |
| kiri rākau – bark | rākau – tree |
| manga – branch | rau – leaf |
| ngahere – forest | tinana – trunk |

