



BECOME A

# TE ĀPITI MANAWATŪ GORGE

## KIWI RANGER!

DISCOVER THIS AMAZING PLACE . . .  
COMPLETE YOUR FAVOURITE ACTIVITIES  
AND BE AWARDED THIS BADGE

ACTIVITY 5

## He Tōtaro Hākaro - the Hollow Tōtara



Okātia is said to have lived in a mighty Tōtara. 20 metres past the Whitehorse Rapids Lookout is an amazing hollow tōtara that you can stand inside! This dying giant is slowly decomposing, even while its upper branches are still living.

Inspect its trunk both inside and out. What insects and plants are carrying out the process of decomposing?

How many years do you think it will be before this giant topples?

What 'event' do you think might cause this?

Now look around on the forest floor for fallen branches decomposing. Turn them over – what do you see?

The soil that new seedlings grow from is made up of the forest. Gently pick up a handful of mulch from the forest floor.

**What parts of the forest can you still recognise in these last stages of decomposition?.....**



ACTIVITY 7

# He Nīkau – Nīkau Palms

Manawatū Gorge is an unlikely place to find a palm tree! However the wind here keeps the frost away from these tender plants so they can grow happily in its damp gullies.

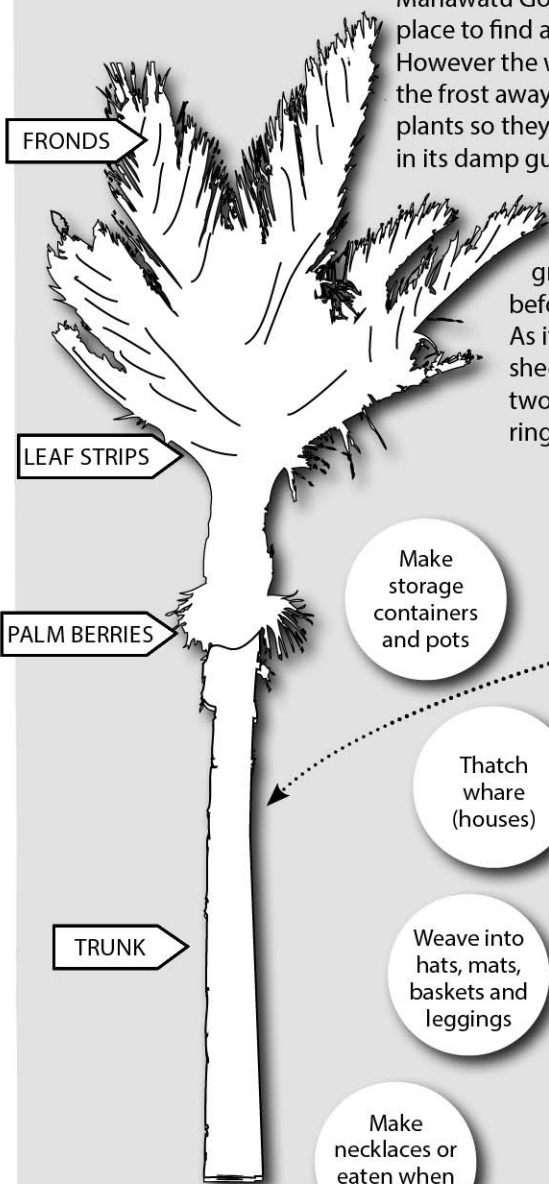
Nīkau are very slow-growing – it takes 50 years before the trunk is even formed! As it continues to grow, the palm sheds its outer fronds – about two each year – each forming a ring on the trunk.

**Pick one tree in a nīkau grove and count its rings. Draw the rings on this picture.**

How old do you think your tree is?

Nīkau were an important plant to Māori and were used in many ways. **Match the ways the nīkau was used to the labelled parts of the nīkau.**

What other uses can you think of for any part of this amazing tree?



Make storage containers and pots

Thatch whare (houses)

Weave into hats, mats, baskets and leggings

Make necklaces or eaten when green

ACTIVITY 8

# Te Mana o Tāwhirimātea – the Power of Wind



Tāwhirimātea is the guardian of the winds and storms. At each of the lookouts on the Manawatū Gorge you can see how some of his power is being harnessed to help generate electricity on the surrounding hills...

Why are so many turbines installed on these hills?

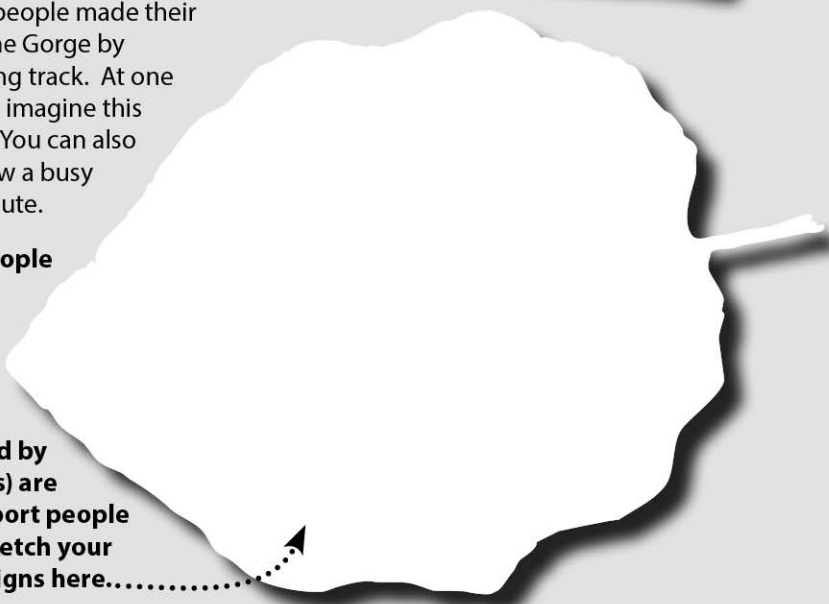
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Why is wind a great source of energy?

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200 years ago people made their way through the Gorge by canoe or walking track. At one of the lookouts imagine this part of history. You can also see how it's now a busy road and rail route.

**How might people in the future travel so only renewable energy sources (like that generated by the windfarms) are used to transport people and goods. Sketch your ideas and designs here.....**



EXTRA: Walk the complete Gorge Track and at the Windmill Lookout you'll be close to one of these giant turbines, and feel the power of the wind! Warning – do not cross the fence!