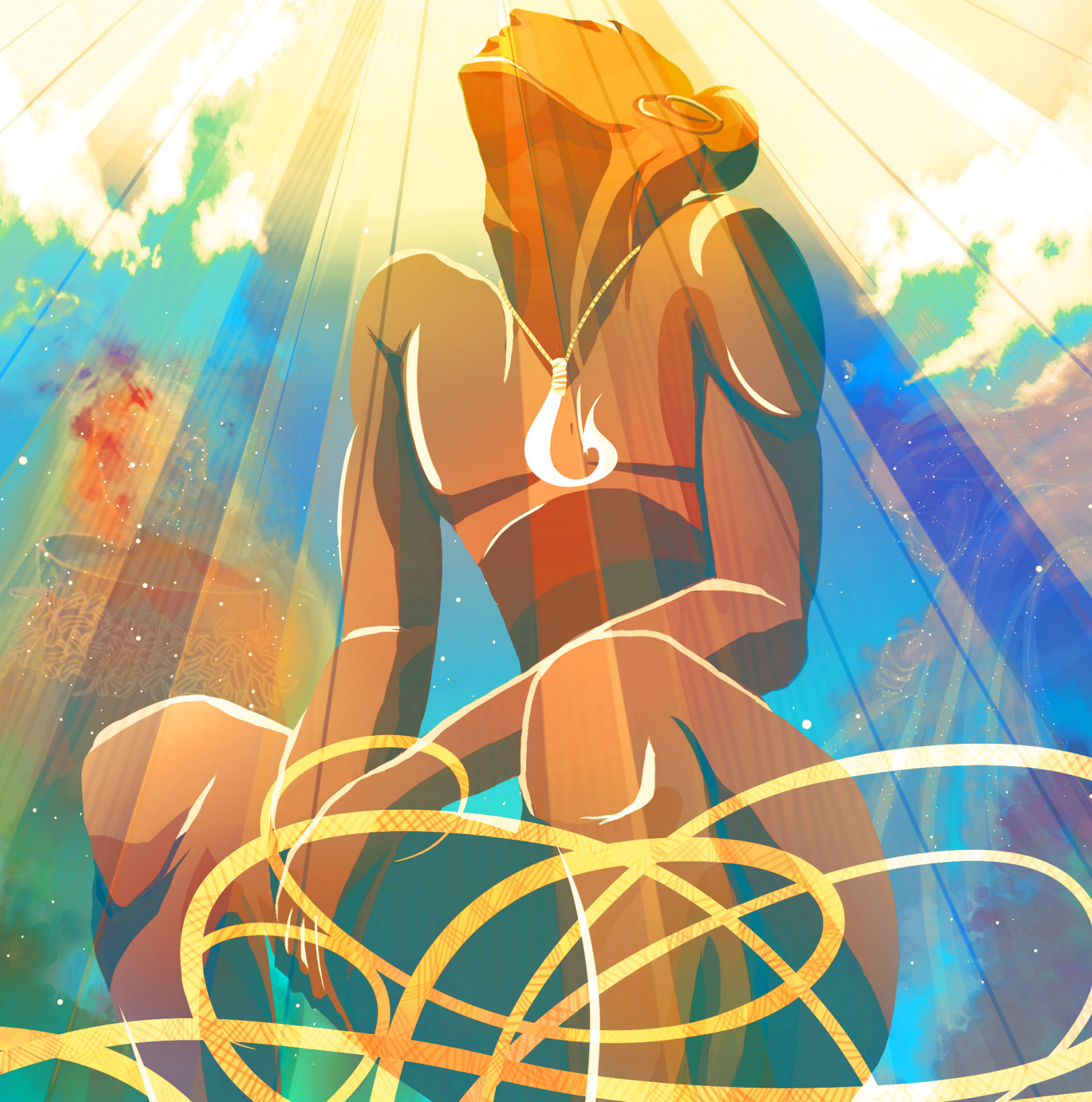


# PŪRAU WITH MĀUI PŌTIKI

By **Dr Raukura Roa**

Illustrations by **Wiremu Te Ruki** and **Wilfred Kiki Te Wao**



# Kupu Arataki | Introduction

The term Pūrau was coined by Leon Blake for Ngā Kura-ā-iwi. Pūrau is the whakaaro Māori representation of Science, Technology, Engineering and Mathematics (STEM) that derives from pūtaiao, hangarau, pūkaha and pāngarau.

Discover Pūrau with Māui Tikitiki-a-Taranga, our mischievous and curious tūpuna of te ao Māori. Journey along with him in his adventures as he tames the sun, fishes up Te Ika a Māui, and captures Mahuika's ahi, inventing new possibilities in his quest for mātauranga. As Māori, we can share in the exploits of our tūpuna by curiously experiencing the world around us and pūtaiao (science), hangarau (technology), pūkaha (engineering) and pāngarau (mathematics) can help us to get there. Ko te pae tawhiti, whaia kia tata, ko te pae tata, whakamaua kia tina!

Written by Dr Raukura Roa, Pūrau with Māui Pōtiki reiterates the use of STEM throughout Māori history and mythology and illuminates the conventionality of STEM in Māori society.

## Rauemi Ipurangi | Online Resources

Scan the QR code to visit our website and access Pūrau related resources.

### Modern Day Māui

There are modern day Māui all around us using their mātauranga Pūrau to make the world a better place. Scan the QR code to watch videos of our modern day Māui sharing about how they are using Pūrau in their mahi.



### Read Online With the Author

Gain access to the e-book and a video of the author Dr Raukura Roa reading Pūrau With Māui Pōtiki.

### Glossary

If you're a little unsure of some Māori terms in Pūrau with Māui Pōtiki, check out the glossary on our website.

This book was prepared for NZQA by Anne Roa and Dr Raukura Roa  
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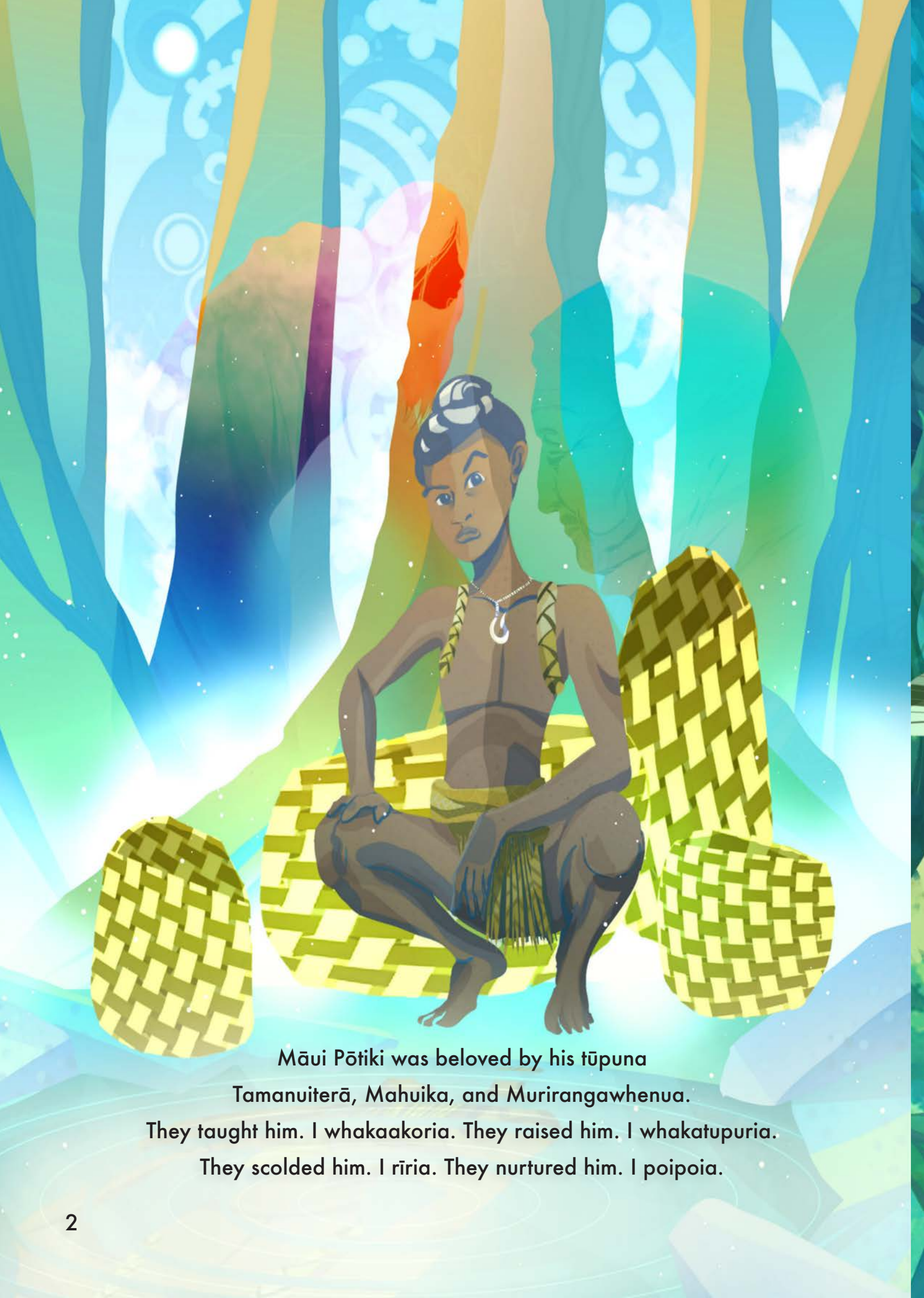
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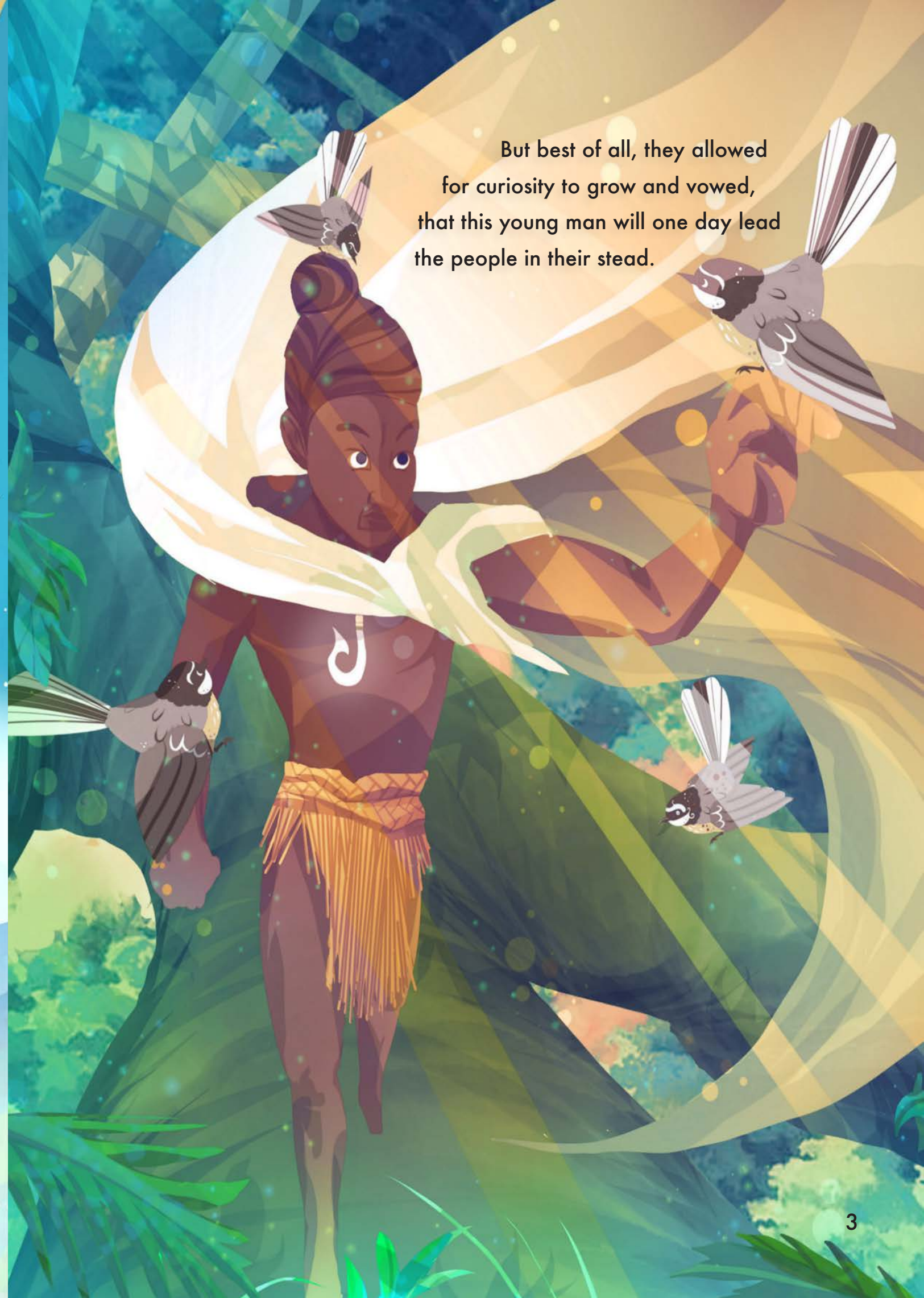


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MANA TOHU MĀTAURANGA O AOTEAROA  
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Māui Pōtiki was beloved by his tūpuna  
Tamanuiterā, Mahuika, and Murirangawhenua.  
They taught him. I whakaakoria. They raised him. I whakatupuria.  
They scolded him. I rīria. They nurtured him. I poipoia.



But best of all, they allowed  
for curiosity to grow and vowed,  
that this young man will one day lead  
the people in their stead.

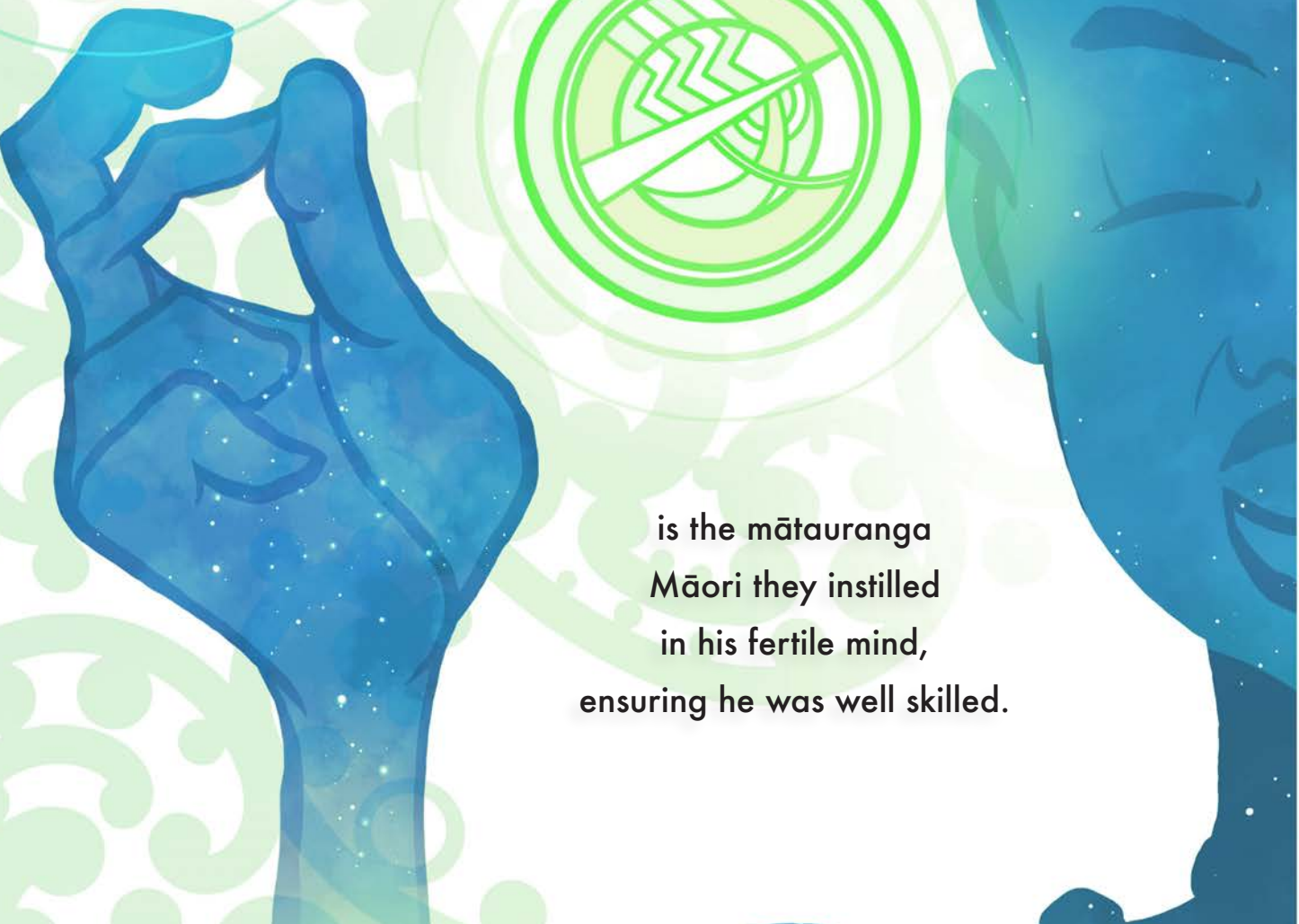


Pūtaiao  
and Hangarau


Pūkaha  
and Pāngarau



**PŪRAU...**



is the mātauranga  
Māori they instilled  
in his fertile mind,  
ensuring he was well skilled.



Māui came  
of age and  
began

to seek  
adventure and  
expand

the  
possibilities  
that are  
available

for his people to be truly able

to live a life full of love,  
abundance, purpose, and fun.

He set out with his four brothers  
on a dangerous and treacherous adventure.  
For Māui-Taha, Māui-Roto, Māui-Waho, and Māui-Pae  
were filled with resentment and pride.  
They did not understand, whatsoever,  
how their younger brother yielded such power.





Māui knew of his brothers' ill will, but to his end, loved them still.

For he understood that they had nil

of his training, knowledge, and skill.

He saw beyond their attitude

and acknowledged their

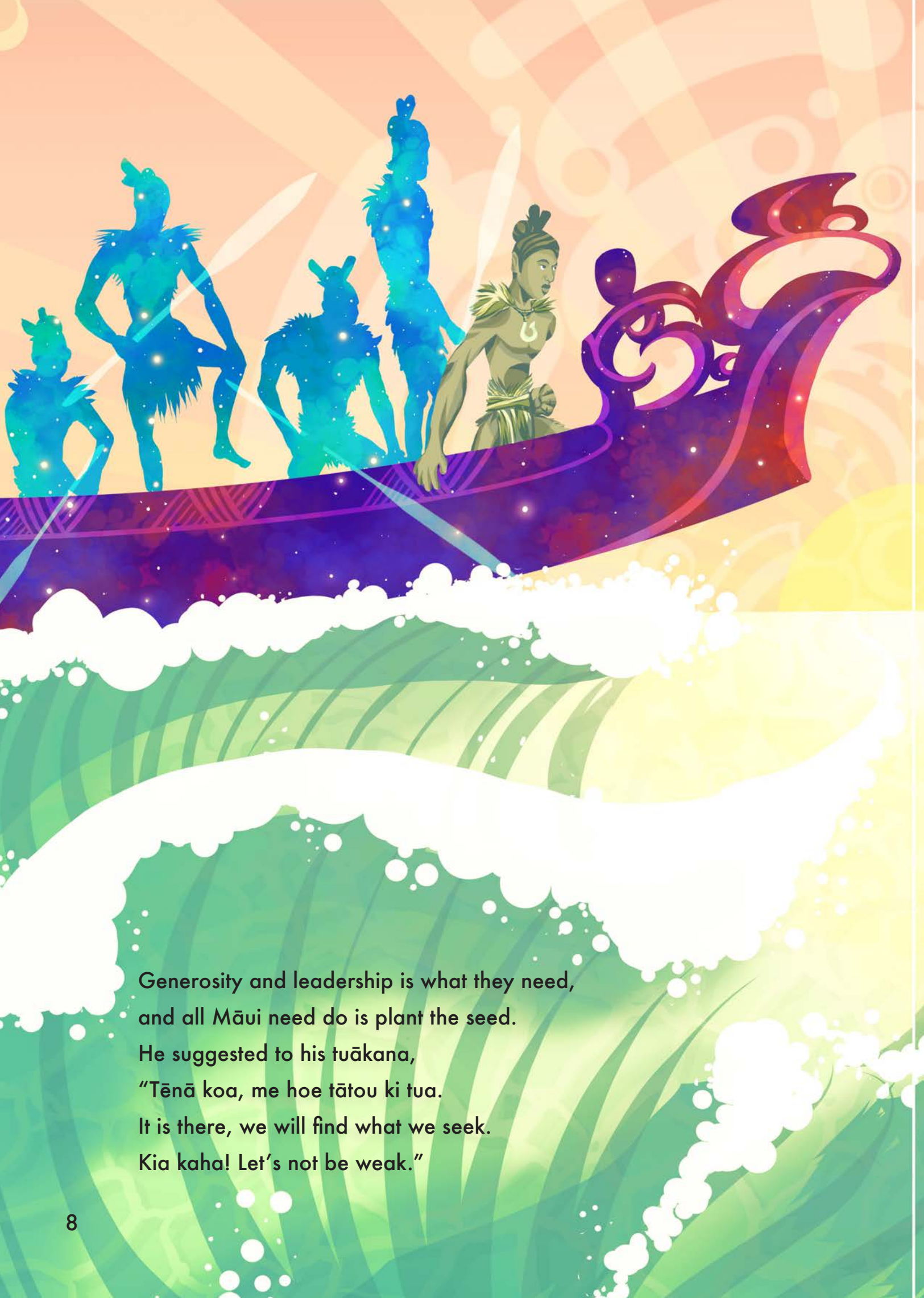
commitment and magnitude

for love, compassion and aroha,

because they, too,

are rangatira.





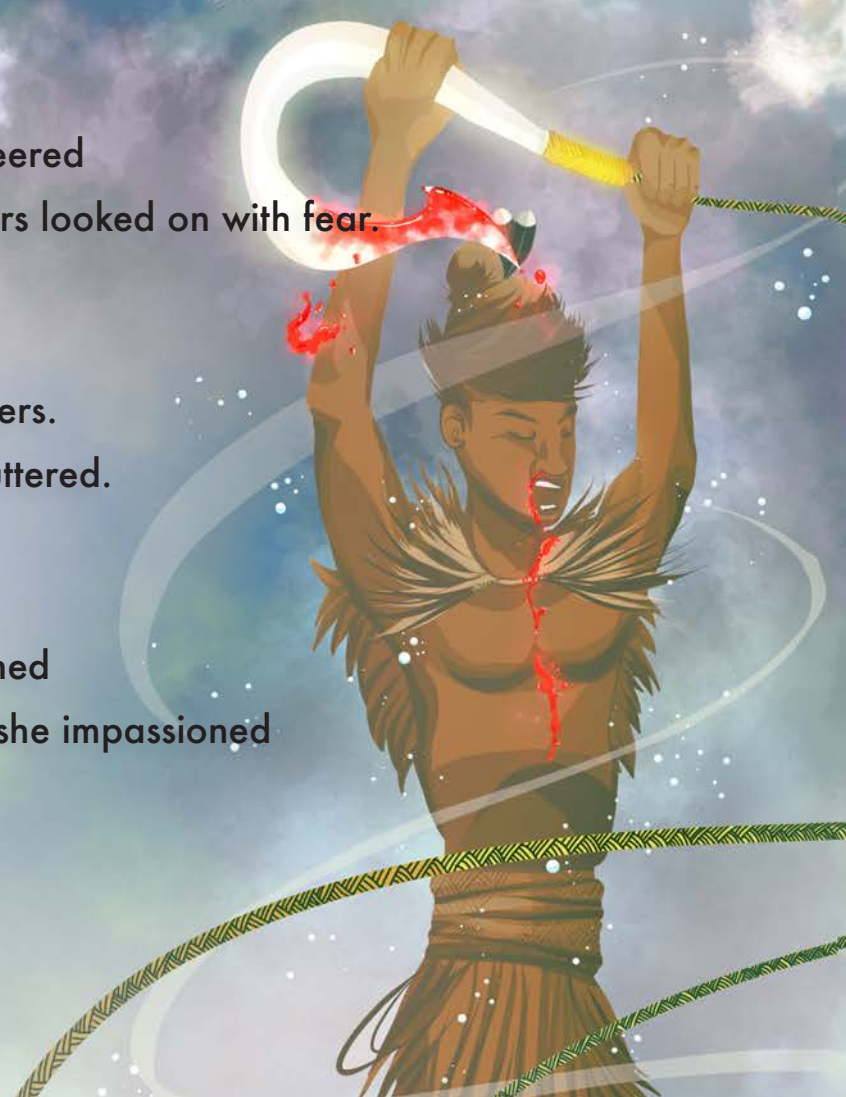
Generosity and leadership is what they need,  
and all Māui need do is plant the seed.  
He suggested to his tuākana,  
“Tēnā koa, me hoe tātou ki tua.  
It is there, we will find what we seek.  
Kia kaha! Let’s not be weak.”

The brothers looked at Māui begrudgingly.  
Bemoaning him, they still kept paddling.  
Māui called out, "Pihukatia te mounu. Tukua ki te wai."  
His brothers refused and said, "Auē, kua pau kē, e tai."

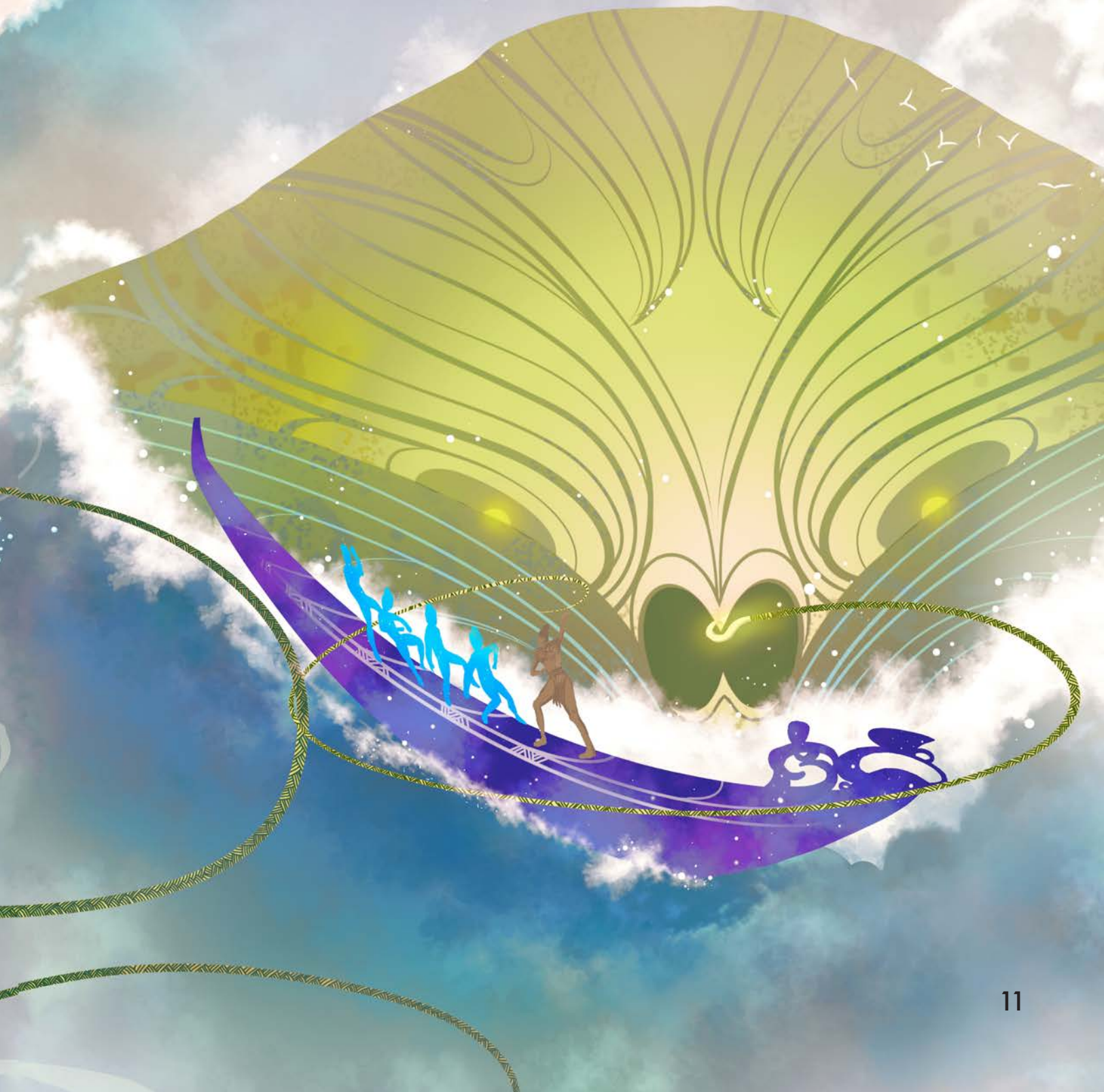




So without hook or bait, Māui engineered his own contraption, whilst his brothers looked on with fear. He crafted an aho using muka, and fastened his matau. Ka takā. "This is pūkaha," he said to his brothers. Māui-Taha went to speak, but just muttered. Māui struck his own nose 'til it bled, smeared the matau until it was red, then took the matau which he fashioned from Murirangawhenua's jawbone - she impassioned within Māui a deep desire to be resilient and never tire.



He chanted incantations and karakia,  
then cast his invention to the moana.  
His prayers were answered by Tangaroa  
who granted him with an ika tipua.  
This mighty fish is what his people wished.  
Te Ika ā Māui is his gift.



Māui's brothers grew to trust him,  
revere him, love him, and respect him.

He showed them what was possible  
in times when hope was improbable.



So they goaded him on to challenge  
the great Tamanuiterā. It would take courage.  
For the sun was unpredictable,  
and caused the village hardship and struggle.

The people cried out, "There isn't enough daylight to complete all the mahi before the night."



Māui calculated  
the speed  
and velocity

at which the sun  
sailed across the sky  
- his people were right!



Māui and his tuākana set out to slow the sun,  
so his people could work, play, and have fun.

He worked out  
the sun's trajectory

using pāngarau,  
something of which  
he has mastery.







They discovered

Tamanuiterā's hiding place,

so Te Rā, they set out to trace.

With his sharp wit and a sly -

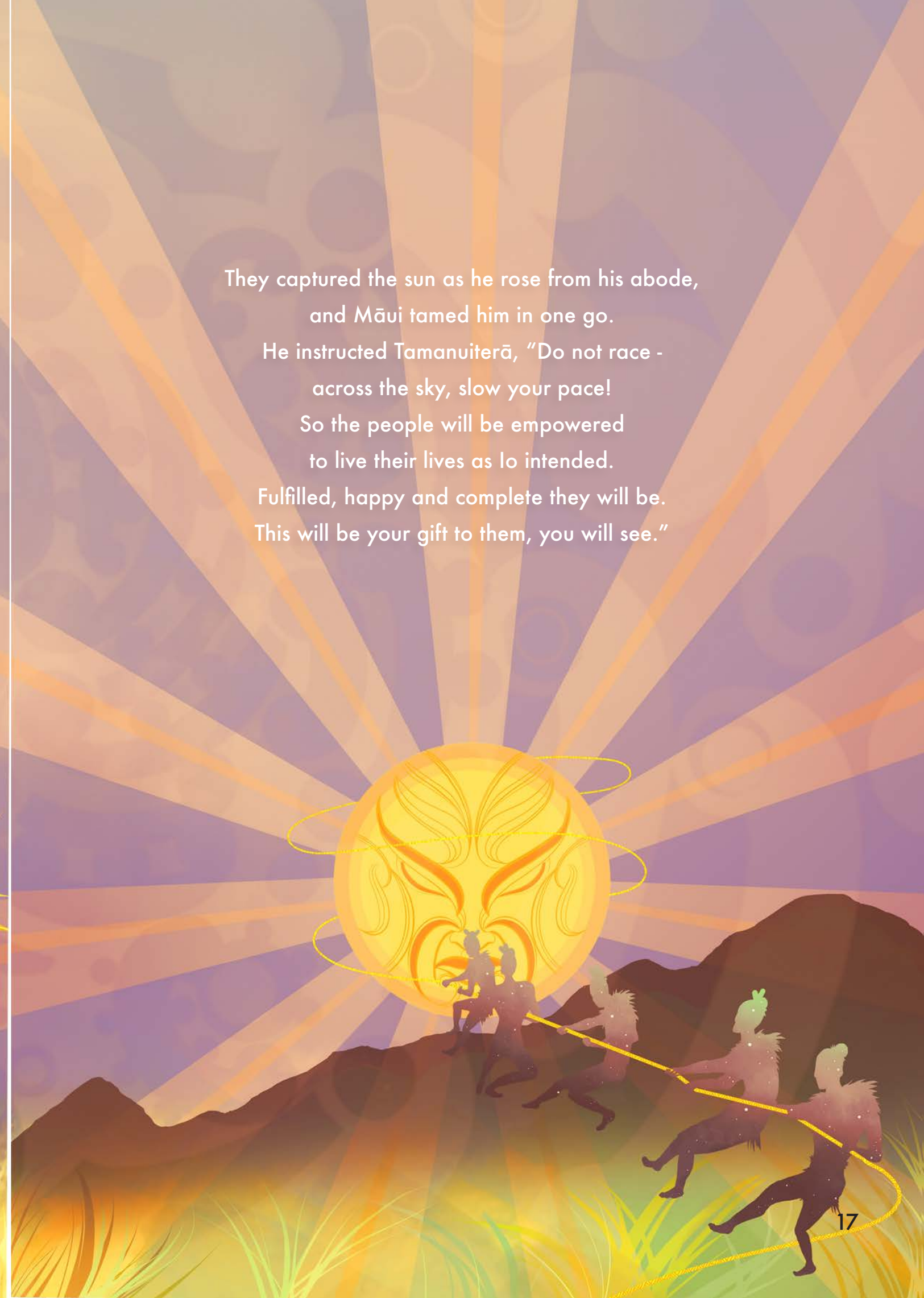
thought, "I'm going to beat this guy!"

He decided to travel at night

for Tamanuiterā's star shines bright.

Māui's brothers and sister Hina  
engineered taura with very strong muka.  
Their incantations and powerful karakia  
instilled the taura with unbridled mana.  
Kīhai i taea e Tamanuiterā  
ngā taura te wetekina.






They captured the sun as he rose from his abode,  
and Māui tamed him in one go.  
He instructed Tamanuiterā, "Do not race -  
across the sky, slow your pace!  
So the people will be empowered  
to live their lives as I intended.  
Fulfilled, happy and complete they will be.  
This will be your gift to them, you will see."

The people lived to their heart's content,  
but one thing still kept them dependent,  
'twas te ahi a Mahuika  
and all its power, he ahi tipua.



So Māui hastened to set his people free.  
For self-determined they will be.  
He approached his tupuna Mahuika  
to share her uri, her matikūkū tipua.





He wanted to possess the gift  
to distribute fire and lift  
the people from the darkness of the night,  
and give life to the village so they may delight  
in living life without restraint,  
or being dependent, disappearing constraint.  
Thus allowing them to tackle  
all that life offers, unshackled.

Mahuika grew impatient with her mokopuna  
Impertinent was he to his tupuna.  
His experiments with her matikūkū tipua  
yielded zero results. Kāore he aha i riwha.



Mahuika was in an uproar,  
so her final uri she let soar  
into the forest to be protected  
from Māui, who was not dejected.





He set forth to discover the source  
of fire, a critical life force.

In the Kaikōmako tree, he unconcealed  
the power of fire - this was unreal.

For pūkaha and pūtaiao were the answer -  
a mātauranga like no other.



This Kaikōmako tree holds the key  
to the power of fire for thee.  
He engineered new technology  
to harness this power from the tree.


With its wood, bark, twigs, and sticks,  
Māui created gadgets using hangarau tricks.

His contraptions, gadgets,  
and hangarau technologies  
Māui developed with great mastery.

Bird snares and crayfish pots.  
Eel nets, there is lots -  
that Māui discovered out of curiosity,  
sheer determination, and tenacity.







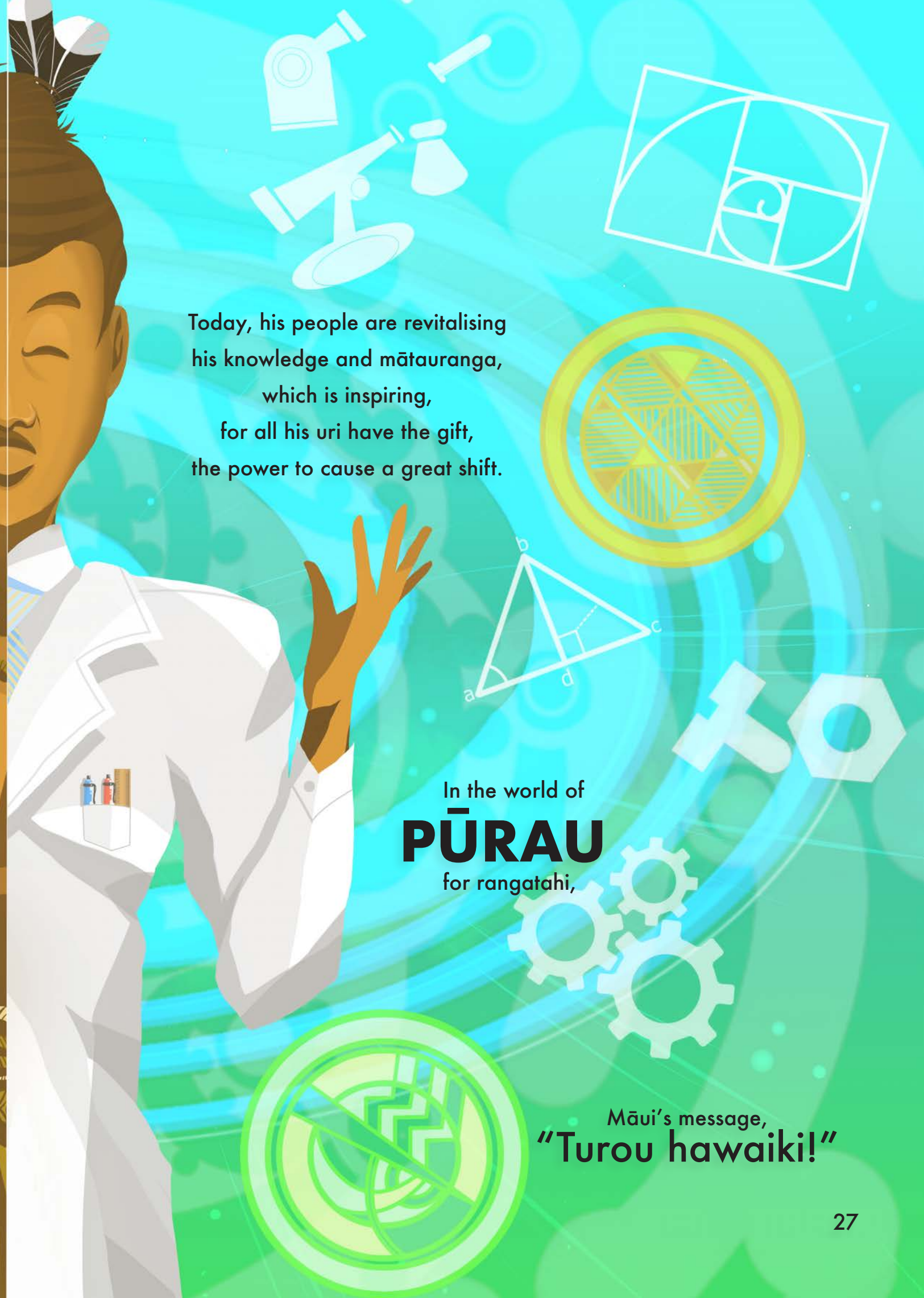
The gifts he bequeathed to te ao  
are immeasurable because the word 'kao'

did not deter him in any way,  
but rather encouraged him  
to find another pathway.

Disrupting the status quo,  
and transforming his people's woes,

## Māui Pōtiki

was not only nanakia -  
koia, he toa rangatira!



Today, his people are revitalising  
his knowledge and mātauranga,  
which is inspiring,  
for all his uri have the gift,  
the power to cause a great shift.

In the world of  
**PŪRAU**  
for rangatahi,

Māui's message,  
"Turou hawaiki!"



# Mahi Whakaū | Learning Activity

Māui had so many cool adventures, if you are a kaiako or mātua you can use this resource to support your ākonga and tamaiti in their learning. Try creating some pātai and ask your ākonga or tamaiti to use the book to answer them. Here are some pātai you can use to start:

1. *What was one of Māui's powers?*
2. *How did Māui use his power to solve problems around him?*
3. *Which story of Māui was your favourite and why?*
4. *What was Māui's response to his brothers when they had ill will towards him?*
5. *What did Māui engineer to catch Te Ika a Māui?*
6. *What did Māui do to see how fast the sun was racing across the sky?*
7. *How did Māui use pāngarau?*
8. *If you were Māui what would you have done differently?*
9. *Use the QR code (front cover page) to watch modern day Māui, which video is your favourite and why?*
10. *If you had to make a choice between Pūtaiao, Hangarau, Pūkaha and Pāngarau which one would you choose and why?*

PŪKAKAHA

PĀNGARAU

PŪTAIAO

HANGARAU

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