

# TE POUTAMA PAKO! O TE PĀNGARAU

HE PUKANGOHE HEI TAUTOKO I  
TE REO MATATINI O TE PĀNGARAU



## **He Mihi**

Ko ngā whakamiha ka rere arorangi atu ki a Hunu-a-rau ki uta, ki a Hunu-a-rau ki tai. Nā koutou te mānuka i hiki ake, i kawe atu kia hua mai ai tēnei rourou kaimārō hei whāngai atu ki ā tātou tamariki mokopuna Māori puta noa i te motu. Me kore ake koutou.

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Kua noho manatā tēnei pukapuka. Atu i ngā take pēnei i ngā akoranga whaiaro, te rangahau, te arotake me te arohaehae mahi i raro i te Ture Manatā, kore rawa e tukuna kia tāia anō tētahi wāhangā o te pukapuka nei, ahakoa te huarahi tā. Me tono whakaae rawa i te hunga nāna te manatā.

# *Te Poutama Pakō o te Pāngarau*

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# *Ngā Tamariki a Tangaroa*

## **HE PUNA KUPU**

## **HE PUNA WHAKAMĀRAMA**

tohu	He pū, tētahi atu momo tānga rānei hei whakaatu i tētahi āhuatanga motuhake
whakamahi (-nga)	he mea ka tīki ake ki te whakaatu i tētahi āhua, tētahi mahi rānei
wōnati	he momo nati ka tupu ki tētahi rākau nui, he kai
āpiti	he mea, he āhua, he kōrero, he whakaaro rānei ka tāpiri ki tētahi atu
rautaki	he pūnaha ka whāia e ea ai tētahi mahi
tātahi	te wāhi onepū ki te taha moana, ki tai
kohi	he huri haere ki te whakaemi, ki te whakakao i tētahi taputpau, i tētahi atu mea rānei
Para	rāpihi
hangarua	he whakamahi para hei rautaki tiaki taiao
rapanga	he take, ka mahi kia kitea mai tētahi mea e ngaro ana, e huna ana, kāore rānei e āta kitea atu ana
whakarākei	he whakataetae whakawhititwhenua i te tai uru ki te tai rāwhiti
tapuni hangarua	he teihana hangarua, ka waiho atu ngā para hei whakamahinga pea mō take kē atu
ipupara	he taunga rāpihi
kirihou	he mea hanga e te tangata e parapara nei i te ao whānui

# *Ngā Tamariki a Tangaroa* **TE WHAKARŌPŪ I TE PUNA KUPU**

*Te Ngohe Tuatahi*



Āta pānuihia te puka tautoko, Ngā Tamariki a Tangaroa.. Tuhia mai ngā kupu e tauhou ana ki a koe. Tērā pea ka kōrero atu ki tō whānau kia whai māramatanga mō ēnei kupu, ka tiro rānei ki ngā rauemi tuīhono.

Anei ētahi whakamahinga o ngā tauira e toru nei: hui katoa, tāpiri me te tohatoha ōrite:

1) Ka kitea e Hikitia ngā kēne e 3, ka kite ia i ngā kēne e 5 anō. Hui katoa, e hia ngā kēne i kitea e Hikitia?  
Te Whakautu:  $3 + 5 = 8$  ( E 8 ngā kēne)

2) E whitu ngā pounamu karaehe tāpirihia ki ngā pounamu karaehe e toru. Hui katoa e hia ngā pounamu karaehe?  
Te Whakautu:  $7 + 3 = 10$  ( 10 ngā pounamu karaehe)

3) E 20 ngā wōnatī o te pēke a Te Ānini. Ki te tohatoha ōrite a Te Ānini i ngā wōnatī ki ngā tāngata tokowhā, kia hia ngā wōnatī ki ia tangata?

Te Whakautu:  $20 \div 4 = 5$  ( E 5 ngā wōnatī)

*Ngā Tamariki a Tangaroa*  
**TE WHAKARŌPŪ I TE PUNA  
KUPU**

*Te Ngohe Tuatahi*



Whakarōpūhia ngā kupu e whai ake nei ki tōna kete. Kua oti kē te kupu tuatahi o ia kete te whakarōpū.

**Tāpiri**

**Tohatoha**

**Hui katoa**

**Haurua**

**Te whakarōpu**

**Tāpiritanga**  
(**Tohu:** +)

**Tangohanga**  
(**Tohu:** -)

**Anō**

**Whakakareatanga**  
(**Tohu:** x)

**Whakarea**

**Tangohia**

**Whakawehē**  
(**Tohu:** ÷ )

**Whakawehē**

**Iti ake**

**Whakarōpūngia**

*Ngā Tamariki a Tangaroa*

# TE WHAKAREA KI TE 10, 100 & 1000

*Te Ngohe Tuarua*



Ko tētahi rautaki whakarea o te 10, te 100, te 1000 rānei ko te āpiti atu i ngā kore ki te tau o te whārite ka whakareatia.

Hei tauira:

- $23 \times 10 = 230$  (Kua āpiti atu tētahi kore ki te tau 23 nā te mea kotahi tonu te '0' o te tau 10)
- $1000 \times 4 = 4000$  (Kua āpiti atu ngā kore e 3 ki te tau 4 nā te mea e 3 ngā '0' o te tau 1000)
- $357 \times 100 = 35700$  (Kua āpiti atu ngā kore e 2 ki te tau 357 nā te mea e 2 ngā '0' o te tau 357)

Whakautua ngā pātai e whai ake nei mā te whai i taua rautaki tonu.

- 1)  $18 \times 10 =$
- 2)  $34 \times 100 =$
- 3)  $9 \times 1000 =$
- 4)  $100 \times 46 =$
- 5)  $1000 \times 99 =$

- 6)  $10 \times 123 =$
- 7)  $65 \times 100 =$
- 8)  $754 \times 10 =$
- 9)  $449 \times 100 =$
- 10)  $754 \times 1000 =$



*Ngā Tamariki a Tangaroa*

## KI TĀTAHI

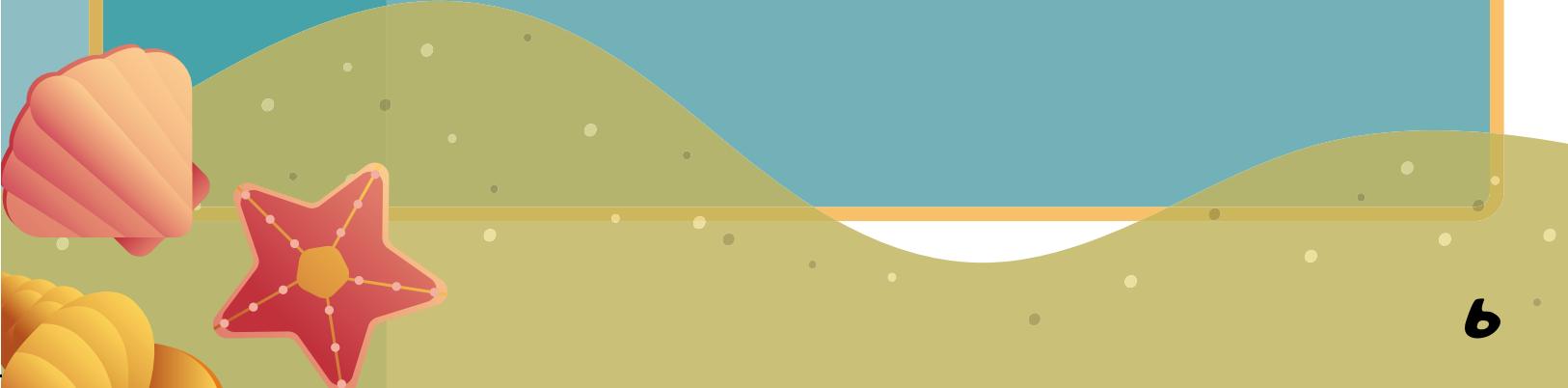
*Te Ngohe Tuatoru*

Kei tātahi ngā tamariki e kohi tahi ana me Pāpā i ngā para hangarua. Whakaotia ngā rapanga kupu mā te whakamahī i ngā tohu +, -, ÷, ×.



1) E kimi ana a Te Rererangi i ngā pounamu karaehe hei hangarua. I te ata, ka kite ia i ngā pounamu karaehe 12. I muri mai i te kai o te rānui ka kite ia i ngā pounamu karaehe 17. Hui katoa, e hia ngā pounamu karaehe i kitea e Te Rererangi?

2) I taka i a Toihau ngā hanawiti a te whānau ki te onepū. Hui katoa, e 24 ngā hanawiti engari waimarie ana i puritia ngā hanawiti e 8. Hui katoa, e hia ngā hanawiti i ūhia katoatia ki te onepū?



*Ngā Tamariki a Tangaroa*

## KI TĀTAHI

*Te Ngohe Tuatoru*



- 1) Kei te kohi a Te Ānini i ngā anga mai i tātahi hei whakarākei i ngā rourou. E hiahiatia ana kia 12 ngā anga mō ia rourou. Hui katoa, e hia ngā anga e hiahiatia ana mehemea e 5 ngā rourou?
- 2) E whakaaro ana a Toihau kia tohatoha ōrite i ngā hanawīti e 24 me ngā tāngata tokoono o te whānau. Kia hia ngā hanawīti ka tukuna ki ia tangata?
- 3) Hui katoa, e 89 ngā para ka kohia e te whānau hei hari atu ki te tapuni hangarua. Mehemea e 89 ngā para ka kohia ia rā mō ngā 10, hui katoa e hia ngā para ka kohia?



# *Ngā Tamariki a Tangaroa*

## **TE WHAKAWEHE I NGĀ PARA**

*Te Ngohe Tuawhā*

Me kahu e koe ngā karapu nā te mea ka whakawehe tātou i ngā para o te ipupara me te ipu hangarua. Kia kore ai e paru ō roto i tō whare, haria ngā ipupara ki waho, whakawehe aī i ngā para.

Me whakawehe ngā kirihou, ngā karaehe, ngā kēne, ngā pepamārō me te pepa ki ngā pūkei rerekē. Tuhia te maha o ia pūkei ki te tūtohi ki raro iho nei.

	Kirihou	Karaehe	Kēne	Pepa
Te maha o ngā para				

Tirohia ngā raraunga o tō tūtohi, kātahi ka whakautu i ngā pātai e whai ake nei.

1) Ko tēhea te kohinga para hanagrua maha rawa o ngā para katoa? \_\_\_\_\_

*Ngā Tamariki a Tangaroa*

# TE WHAKAWEHE I NGĀ PARA

*Te Ngohe Tuawhā*



2) Kī ōu nei whakaaro, he aha te take koinei te para maha rawa o ngā para katoa?

3) Ko tēhea te kohinga para hangarua iti rawa o ngā para katoa?

4) Kī ōu nei whakaaro, he aha te take koinei te kohinga para iti rawa o ngā para katoa?

5) Tohua mai ētahi mahi iti ka taea e koutou ko tō whānau te mahi hei whakaiti i te rahinga o ngā para.  
Kua tuhia tētahi mahi māu:

a) Ka tipi haere ana koutou ko tō whānau, heria atu ngā pounamu me ngā kapu mauroa.

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

## HE KŌWHIRINGA:

Pērā i te whānau o tēnei pūrākau, ka taea e koe te haere atu ki te papa tātakaro o tō takiwā, ki tētahi wāhi ā-haporī rānei ki te kohi para hei hangarua māu.

*Kei Konei Ahau*

## HE PUNA KUPU HE PUNA WHAKAMĀRAMA

mati

he kupu anō mō te tau, engari e kōrero 'whika' ana

whakakī

he mahi kia tuhi, kia tā, kia kōrero rānei e kī ai tētahi āputa

pou

- mano: te wāhi e tohu ana i te uara tū ā-tau mano
- rau: te wāhi e tohu ana i te uara tū ā-tau rau
- tekau: te wāhi e tohu ana i te uara tū ā-tau tekau
- kotahi: te wāhi e tohu ana i te uara tū ā-tau kotahi
- hautekau: te wāhi e tohu ana i te uara tū ā-ira tuatahi

me pūrua

he kīanga mō te tōai, kia tuhia ki te rae, kia toka, kia mau, kia ita

hoahoah

he tānga māmā e whakaatu ana i te hanga, i te takoto rānei o tētahi mea

tautohu(-a)

he mea ka whakaatu he aha i motuhake ai i ētahi atu

tau  
matirua

ko ngā tau matirua i waenga i te 10 me te 99

nui  
whakaharahara

he take nui, me aro rawa

huahua

he tānga pikitia māmā, te nuinga o te wā, ki te penerākau

mātohu

he kaupapa nui whakaharahara, he taonga

# *Kei Konei Ahau*

## **TE RAPU MĀRAMATANGA MŌ TE UARA TŪ**

*Te Ngohe Tuarima*



Āta pānuihia te puka tautoko, Kei Konei Ahau. Tuhia mai ngā kupu e tauhou ana ki a koe. Tērā pea ka kōrero atu ki tō whānau kia whai māramatanga mō ēnei kupu, ka tiro rānei ki ngā rauemi tuihono.

Ko te uara tū te wāhi e noho ai te mati i roto i tētahi tau. E kimi ai te uara tū o tētahi tau, me mātua mōhio koe ki ngā īgoa o ngā pou rerekē.

Anei te 'āhua o ngā pou mō te tau 2756.4;

Mano	Rau	Tekau	Kotahi	Hautekau
..	••	•••	•••	••
2	7	5	6	4

Ko te uara tū o te 2, ko te mano, nā te mea e noho ana te 2 ki te pou mano (1000)

Ko te uara tū o te 7, ko te rau, nā te mea e noho ana te 7 ki te pou rau (100)

Ko te uara tū o te 5, ko te tekau, nā te mea e noho ana te 5 ki te pou tekau (10)

Ko te uara tū o te 6, ko te kotahi, nā te mea e noho ana te 6 ki te pou kotahi (1)

Ko te uara tū o te 4, ko te hautekau, nā te mea e noho ana te 4 ki te pou hautekau (.10)

*Kei Konei Ahau*

# TE RAPU MĀRAMATANGA MŌ TE UARA TŪ

*Te Ngohe Tuarima*



Whakamahia ngā tauira ō runga hei āwhina i a koe ki te whakakī i ngā āputa ki te vara tū tika mō te tau 1472.6:



1) Ko te \_\_\_\_\_ te vara tū o te 1

2) Ko te \_\_\_\_\_ te vara tū o te 7

3) Ko te \_\_\_\_\_ te vara tū o te 5

4) Ko te \_\_\_\_\_ te vara tū o te 2

5) Ko te \_\_\_\_\_ te vara tū o te .4

*Kei Konei Ahau*

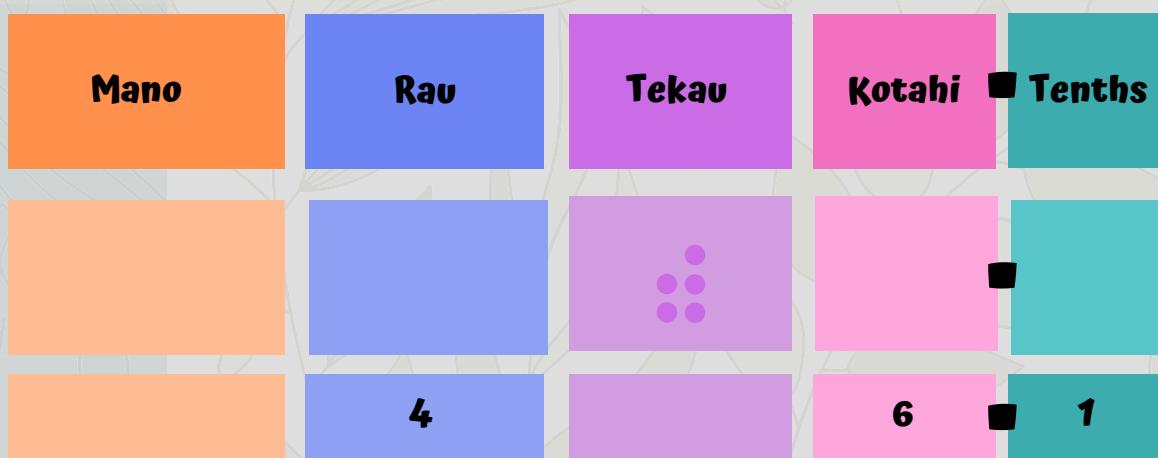
# ME PŪRUA TE UARA TŪ

*Te Ngohe Tuaono*



Ka whakamahi i ngā pūkenga o te Ngohe Tuarima hei āwhina i a tātou me tēnei ngohe. Whakaotihia ia hoahoa ki raro iho nei mā te whakakī i ngā 'ira' me ngā 'tau' e ngaro ana, kātahi ka whakautua ngā pātai ka whai ake.

1)



2)



*Kei Konei Ahau*

## ME PŪRUA TE UARA TŪ

*Te Ngohe Tuaono*



3)



4) Tautohua mai te tau e noho ana ki te pou hautekau: 8126.5

5) Tautohua mai te tau e noho ana ki te pou mano: 6498.3

6) Tirohia ngā uara tū, kātahi ka tuhi mai i te tau e hāngai ana:

a) E rua ngā mano, e ono ngā rau, kotahi te tekau, e rima ngā tahi, e whā ngā hau tekau.

Te Whakautu: \_\_\_\_\_

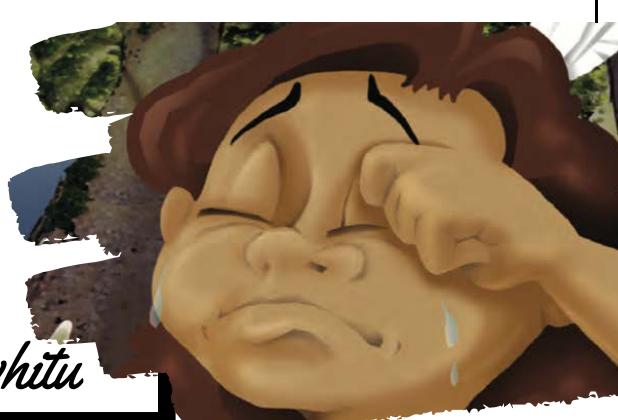
b) E whā ngā mano, e whītu ngā tekau, e rua ngā tahi, e iwa ngā hau tekau.

Te Whakautu: \_\_\_\_\_

*Kei Konei Ahau*

## TE KARIHI TAU

*Te Ngohe Tuawhitū*



Ki te tāpiri i ngā tau matirua, ka tāpirihia ngā 'tekau', kātahi ka tāpirihia ngā 'tahi', mā reira e kimi ai te tapeke.

Hei tauira:

$$\begin{array}{ccc}
 \boxed{23} & + & \boxed{35} \\
 \downarrow & & \downarrow \\
 \boxed{20} & + & \boxed{3} \\
 & + & \\
 \boxed{20} & + & \boxed{30} \\
 \downarrow & & \downarrow \\
 \boxed{50} & + & \boxed{3} \\
 & + & \\
 & & \boxed{5} \\
 & & \downarrow \\
 & & \boxed{8} \\
 & & = \\
 & & \boxed{58}
 \end{array}$$

- 1) Wāwāhia ngā tau ki ūna tekau me ūna tahi
- 2) Nekea kia noho tahi ai ngā rōpū o te 'tekau' ki ētahi taiapa, ko ngā rōpū o te 'tahi' ki ētahi atu
- 3) Tāpirihia ngā rōpū o te 'tekau' i te tuatahi, kātahi ka tāpirihia ngā rōpū o te 'tahi'

4) Tātaingia te whakautu o ia taiapa, ka tāpiri ai i ngā tapeke = 58 te whakautu

Whakamahia tēnei rautaki tāpiripiri ki te whakaoti i ngā whārite me ngā rapanga kupu.

1)  $18 + 31 =$

$$\begin{array}{ccc}
 \boxed{18} & + & \boxed{31} \\
 \downarrow & & \downarrow \\
 \boxed{1} & + & \boxed{3} \\
 & + & \\
 \boxed{1} & + & \boxed{3} \\
 & + & \\
 & & \boxed{8} \\
 & & = \\
 & & \boxed{49}
 \end{array}$$



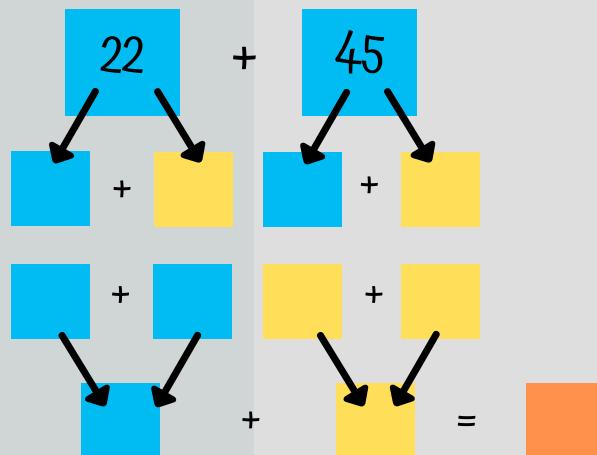
*Kei Konei Ahau*

## TE KARIHI TAU

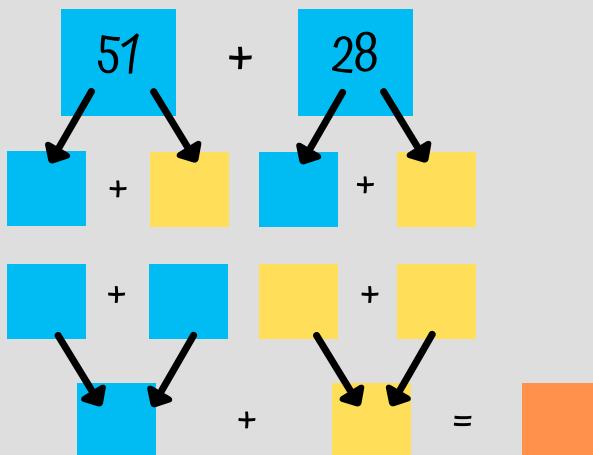
*Te Ngohe Tuawhitu*



2)  $22 + 45 =$

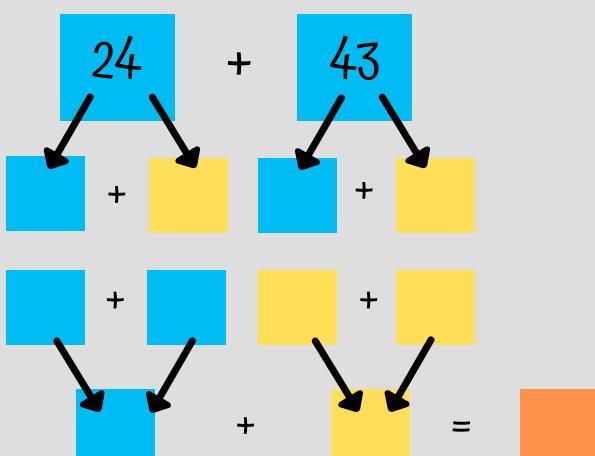
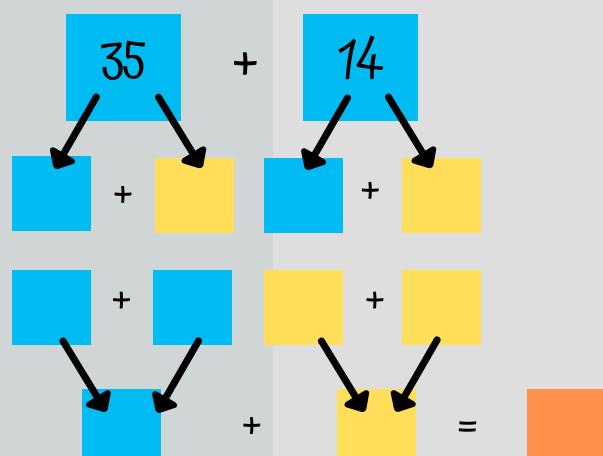


3)  $51 + 28 =$



4) I te ngahere, ka kohia e tētahi manu ngā kōrari e 35 hei hanga i tōna kōhangā, ka kohia hoki ngā kākano 14 hei kai māna. Hui katoa, e hia ngā kōrari me ngā kākano i kohia?

5) I tētahi whaitua o te ngahere noho ai tētahi pōkai manu. E 24 ngā kākapo, e 43 ngā weka. Hui katoa, e hia ngā kōrari me ngā kākano i kohia?



*Kei Konei Ahau*

## KIMIHIA NGĀ TAONGA

*Te Ngohe Tuawaru*



I tēnei pūrākau kite ai he taonga nui whakaharahara te kōauau. Ki konei koe whakarārangihia ai ngā taonga nui whakaharahara ki a koutou ko tō whānau. Whakarārangihia mai ngā 'taonga' ki te tūtohi ki raro iho nei, ka whakamārama ai he aha i nui whakaharahara ai ēnei ki a koutou ko tō whānau:

Te rārangī  
taonga

He aha i nui  
whakaharahara ai?

1

2

3

4

5



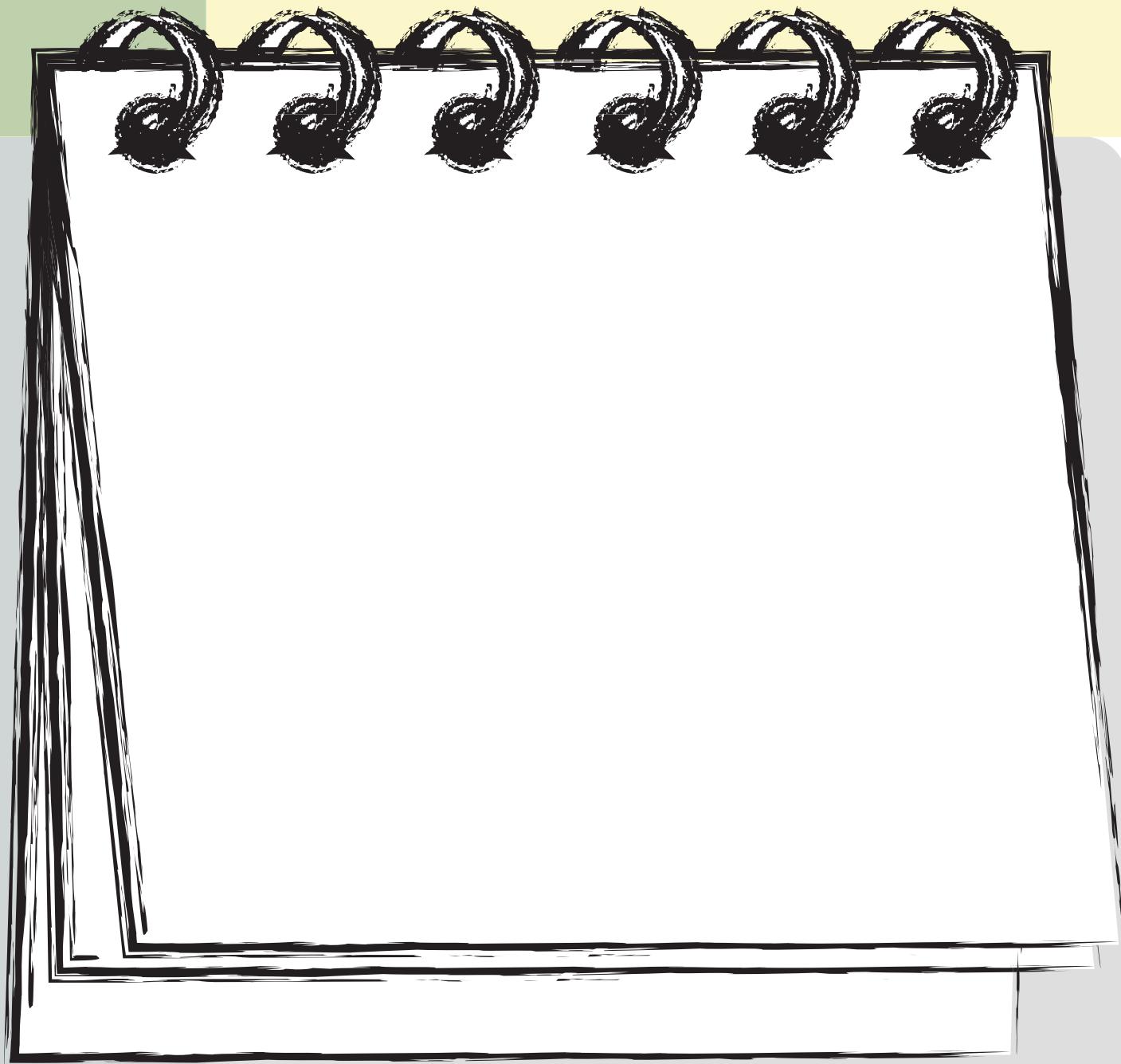
*Kei Konei Ahau*

## FIND YOUR TREASURES

*Te Ngohe Tuawaru*



Tēnā kōwhiria tētahi taonga, ka huahua ai ki raro iho nei.



He kōwhiringa: Me puta atu ki te hīkoi haere i tō whaitua, i tō tūrangawaewae rānei ka tautohu ai i ngā taonga, i ngā mātohu nui whakaharahara rānei.

*Ko Tūwhā*

## **HE PUNA KUPU HE PUNA WHAKAMĀRAMA**

mitamano

mirimita

mitarau

henemita

manomita

kiromita

waeine

he tūmomo ine hei whakatau i te rahi o tētahi mea

Whakatau tata

He tātaitanga, he matapae o tētahi otinga āwhiwhi.

kōwhiri

Ka āta tohu i tētahi mea he whakapono koinā te mea tika māu

roa

tawhiti tonu mai i tētahi pīto ki tētahi

whānui

e tawhiti ana mai i tētahi taha ki tētahi (o tētahi hanga)

teitei

roa noa atu te toro whakarunga

me mātua

e noho ana hei mea nui rawa, e noho mātāmua mai ana



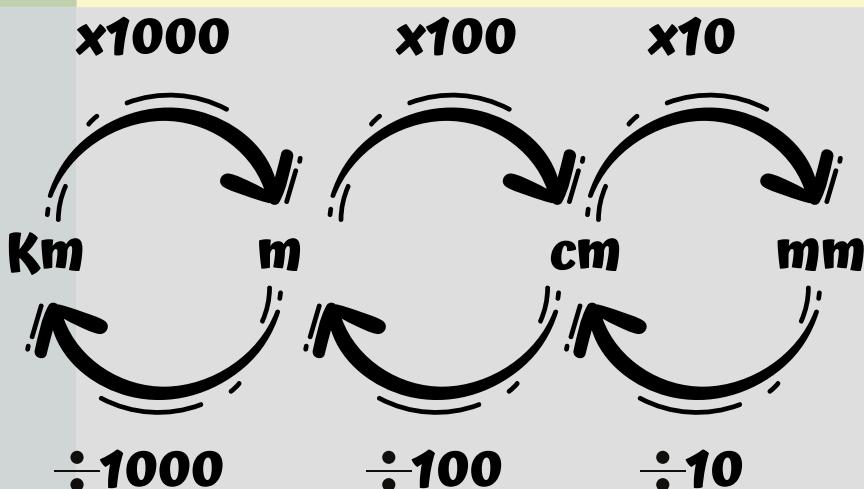
Ko Tiwha

# ROA, ROA RAWA, ROA RAWA ATU

Te Ngohe Tuaiwa



Āta pānuihia te puka tautoko, Ko Tiwha. Tuhia mai ngā kupu e tauhou ana ki a koe. Tērā pea ka kōrero atu ki tō whānau kia whai māramatanga mō ēnei kupu, ka tiro rānei ki ngā rauemi tuihono. Ko te mitamano (mm), te mitarau (cm), te mita (m) me te manomita (km) ngā kupu pāngarau o tēnei ngohe. Ko ngā kupu kua rangona pea e koe mō ēnei momo īne, ko te mirimita (mm), te henemita (cm), te mita tonu me te kiromita (km). Whakaaroa hia te kotahi mita, ko tōna rite ko tētahi tāwhaiwhai.



Hei tauira:

$$1m = 100cm, 1m = 1000mm$$

Ka īne ana tātou i tētahi mea poto nei, ko te mitamano (mm) te waeine tika. Ki te īne i te whānui o tō penerākau, ka whakamahi i te waeine mitamano (cm). Ka īne ana tātou i te tawhititanga roa, ka whakamahi i te waeine manomita (km). Ko te manomita te waeine hei īne i te tawhititanga mai i Tāmakimakaurau ki Kirikiriroa.



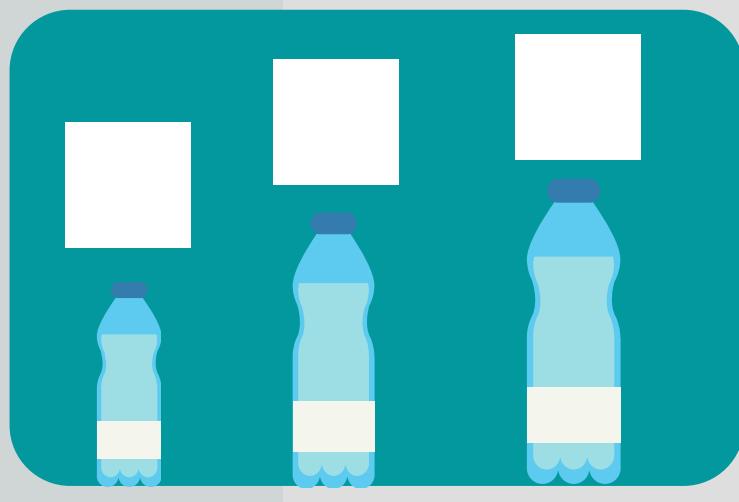
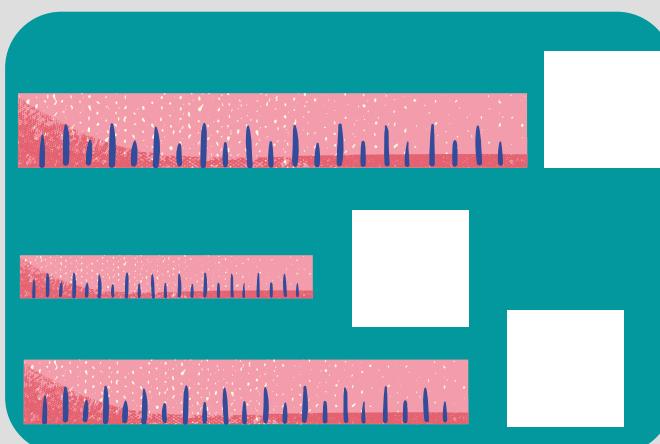
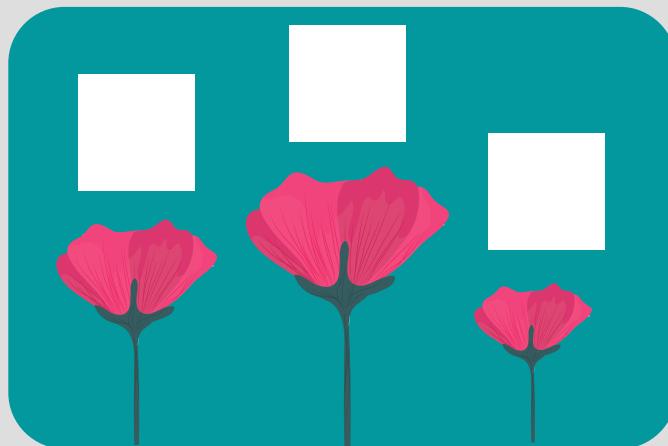
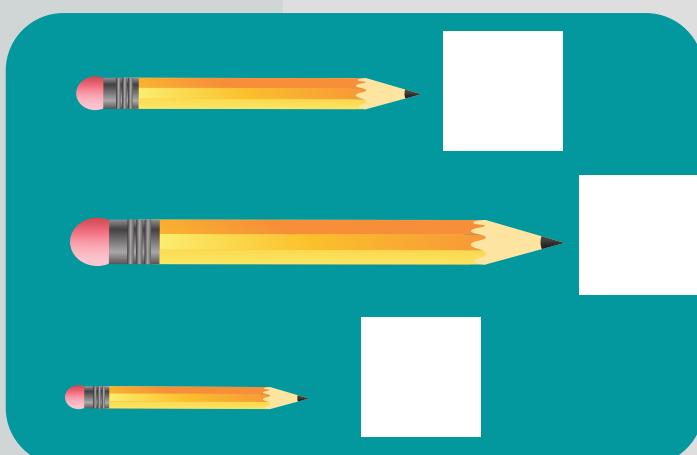
Ko Tūwhā

**ROA, ROA RAWA,  
ROA RAWA ATU**

Te Ngohe Tuaiwa



Tohua mai ia rōpū ki ngā tau 1, 2 me te 3 hei whakaatu mai ko tēhea te mea roa (1), te mea roa rawa (2), te mea roa rawa atu hoki (3).



Ko Tiwha

## ME WHAKATAU TATA

Te Ngohe Tekau

I te pūrākau nei, ka kai tahi a Kara rāua ko Tiwha ia ata, ia ata. Me whakatau tata te roa o ngā mea o te kīhini kātahi ka kōwhiri i te otīnga kei te takiwā tonu o te tika.

1) He aha te roa o te tēpu kai?

100 mm, 15 cm, 1.5 m, 1.5 km



2) He aha te whānui o tētahi kēne kai?

80 mm, 88 cm, 8 m, 0.8 km



3) He aha te roa o tō kīhini?

6 mm, 50 cm, 6 m, 5 km



4) He aha te teitei o te pātara miraka?

24 mm, 24 cm, 2m, 0.2 km



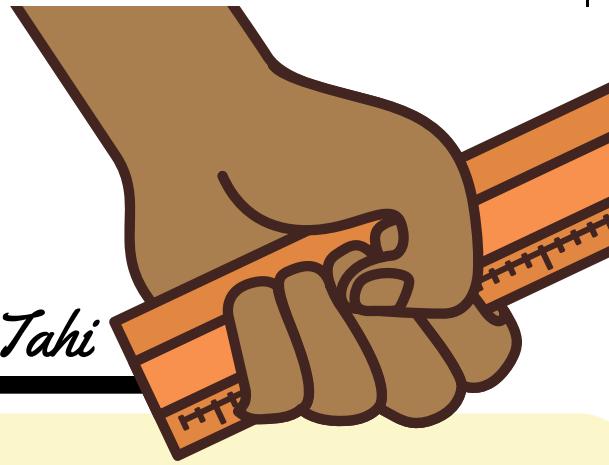
5) He aha te whānui o tētahi kakape?

8 mm, 8 cm, 0.8 m, 0.8 km

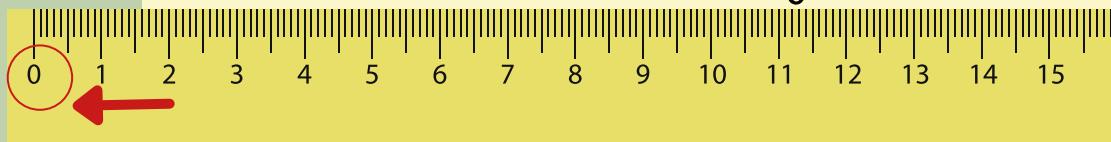
Ko Tiwha

## INEA TE ROA

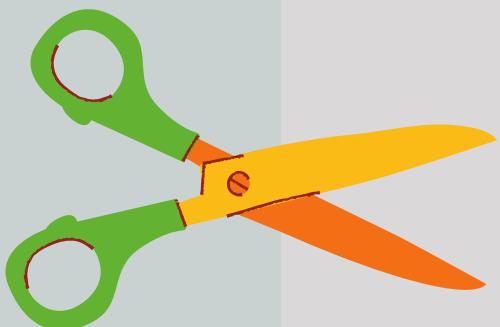
Te Ngohe Tekau mā Tahi



Ka whakamahi ana koe i tō rūri, me mātua tīmata ki te 'kore'. Tirohia te pikitia ki raro iho nei kia whai māramatanga ai koe.



Whakamahia tō rūri, 30cm te roa, hei īea i te roa o ēnei e whai ake nei:



1) Te roa:



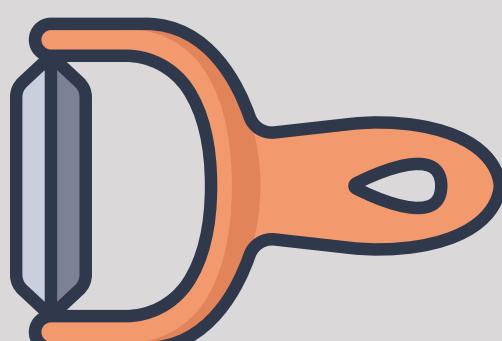
2) Te roa:



4) Te roa:



5) Te roa:



6) Te roa:

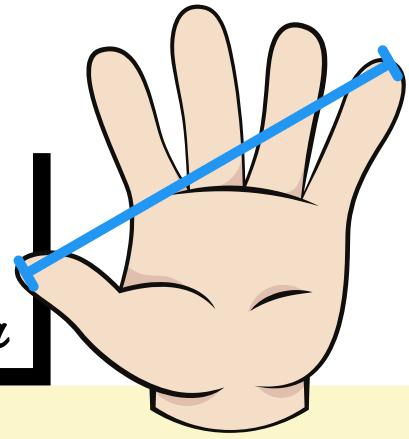


Tēna, īea te roa o ēnei taputapu e whai ake nei. Māu anō e whakatau ki hea tīmata ai, ki hea otī ai te īnenga.

*Ko Tiwha*

## **HAND TO HAND**

*Te Ngohe Tekau mā Rua*

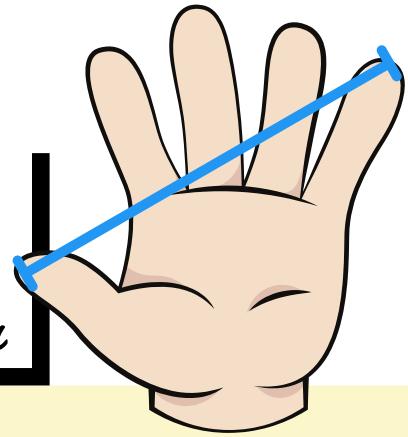


Mō tēnei ngohe, me kimi rawa te roa o tō ake matikara. Tāwhaitia tō ringa ki raro iho nei. Me whānui rawa te whātoro o ngā matimati, kātahi ka tāwhaitia haere tō ringa me te pene rākau. Me ine mai i te mata o te kōnui ki te mata o te tōiti (Tirohia te pikitia ki raro iho nei)

Tuhia mai te īnenga o tō matikara ki te mitarau e pātata ana.

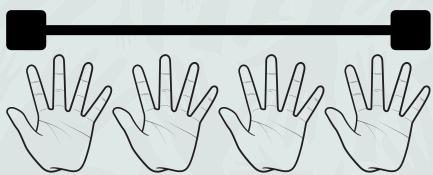
## HAND TO HAND

*Te Ngohe Tekau mā Rua*



E taea ana e koe tō matikara te whakamahi hei ine i te roa o ētahi taputapu, mā te whakatau i tō ringa (matikara) ki te pito tīmatanga o te taputapu, ka māhere haere kia kite rā e hia ngā matikara kia tae atu rā koe ki te pito whakamutunga (tirohia te pikitia ki raro iho nei)

E whā matikara te roa o tēnei pae. Hei tauria, mehemea he 12 mitarau te roa o tō matikara, ko tō te pae roa, ko te  $12 \times 4 = 48\text{cm}$ .



I ia ata, ka tīmata a Tiwha ki te rūma o Kara. Tātaingia e hia ngā matikara mō ia taputapu o te rūma:

Te Taputapu	Ngā Matikara
Te roa o te pera	
Te teitei o ngā hautō	
Te roa o te moenga	
Te teitei o te kūaha	
Te whānui o tō rūma (te taha poto)	

*Te Karurua Whakatata*

## HE PUNA KUPU HE PUNA WHAKAMĀRAMA

taparau

He āhurua, e toru, he maha kē atu rānei  
kōna tapa torotika e hono tahi ana

ahurua  
(ahu-2)

he āhua e kitea atu ana tōna whānui me tōna  
roa, engari kāore ūna hōhohutanga, ūna  
teiteitanga rānei

ahutoru  
(ahu-3)

he āhua e kitea atu ana tōna whānui me tōna  
roa, tōna hōhonutanga, tōna teiteitanga hoki

[#]-tapa

te tōpūtanga o ngā taha o tētahi āhua  
ahurua, ahutoru rānei

papatahi

e tautika ana te takoto o tētahi mata

te ao tukupū

ko te ao e noho nei tātou, te īra tangata

rango  
pepamārō

he taputapu kua hangaia mai i te pepamārō,  
he rango te āhua

tēpa  
whakapiri

he hanga roa, he whāiti, he mea hanga ki te  
kirihou kia paihere tētahi mea ki tētahi atu

koke

ko te kōkiri whakamua o te mea, o te  
tangata, o te aha atu rānei

*Te Karurua Whakatata*

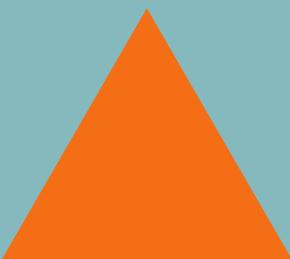
## **TE TAUTOHU I NGĀ TAPARAU**

*Te Ngōhe Tekau mā Toru*



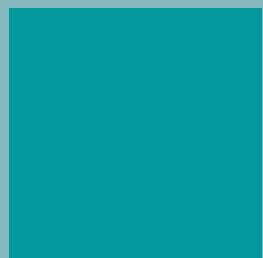
Āta pānuihia te puka tautoko, Te Karurua. Tuhia mai ngā kupu e tauhou ana ki a koe. Tērā pea ka kōrero atu ki tō whānau kia whai māramatanga mō ēnei kupu, ka tiro rānei ki ngā rauemi tuihono. He āhua ahu-2 te taparau. Tirohia te tūtohi i raro iho nei kia kite i te ingoa o ngā taparau rerekē, mai i te 3-tapa ki te 8-tapa.

Tapatoru



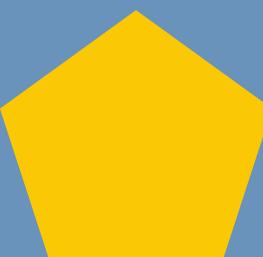
3

Tapawhā rite



4

Taparima



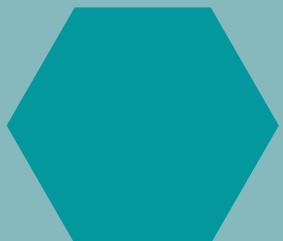
5

*Te Karurua Whakatata*

## IDENTIFYING POLYGONS

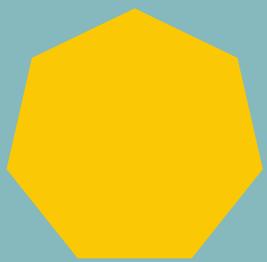
*Te Ngohe Tekau mā Toru*

Tapaono



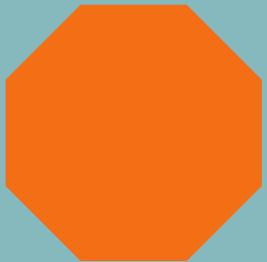
6

Tapawhitu



7

Tapawaru



8

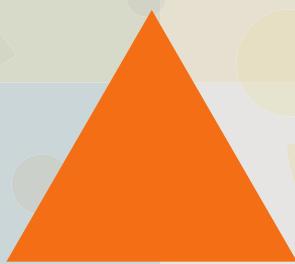
- 1) I ia pātai, tautohua mai te āhua kua whai i ngā tapa maha rawa.
- a) Tapatoru, tapawaru, tapaono
  - b) Tapawhā rite, tapatoru, taparima
  - c) Tapawhitu, tapawaru, tapawhā rite
  - d) Tapawhitu, tapatoru, tapaono
  - e) Tapawaru, tapaono, tapawhitu

## TE MAHI A TE TAPARAU

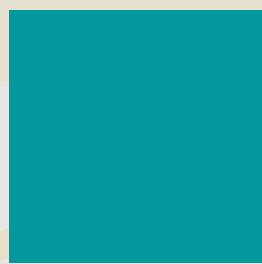
*Te Ngohe Tekau mā Whā*

He kupu anō te taparau mō tētahi āhua papatahi. E mōhiotia ana ngā taparau o raro nei hei taparau 'rite' nā te mea e ūrite ana te roa o ia tapa.

Me whakamahi i ngā pūkenga o te ngohe 13 ki te whakaingoa i ngā taparau ki raro iho nei.



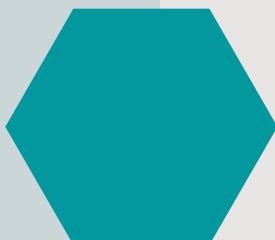
E toru ngā tapa



E whā ngā tapa



E rima ngā tapa



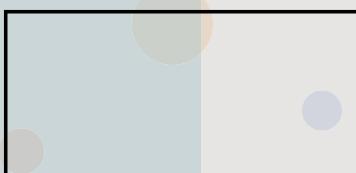
E ono ngā tapa



E whitu ngā tapa



E waru ngā tapa



*Te Karurua Whakatata*

## **TE MAHI A TE TAPARAU**

*Te Ngohe Tekau mā Whā*

Tāngia ētahi rawa o te ao tukupū e rite ana tōna  
āhua ki ngā taparau kua rārangihia mai ki te tūtohi ki  
raro iho nei.



Tapatoru



Tapawhā rite



Tapawhā  
hāngai



Taparima

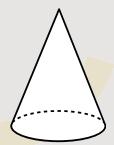
*Te Karurua Whakatata*

# NCĀ TINI ĀHUA AHU-TORU

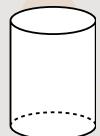
*Te Ngohe Tekau mā Rima*

Tāngia ētahi rawa o te ao tukupū e rite ana tōna āhua ki ngā āhua ahu-toru kua rārangihia mai ki te tūtohi ki raro iho nei.

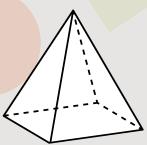
**koeko**



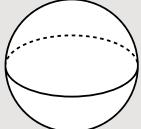
**rango**



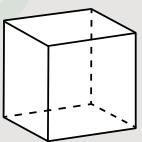
**koeko-tapawhā  
rite**



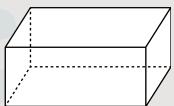
**poi**



**mataono  
rite**



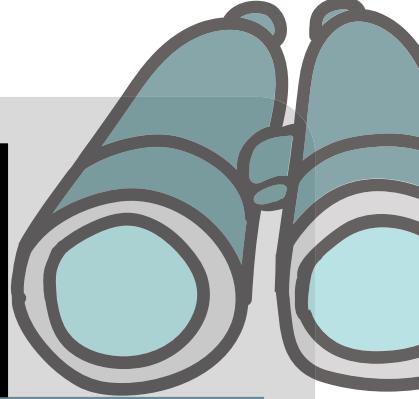
**poro-tapawhā  
hāngai**



*Te Karurua Whakatata*

# TE HANGA KARURUA WHAKATATA

*Te Ngahe Ono*



E hanga ai koe ō ake karurua whakatata, e hiahiatia ana:

- Kia rua ngā rango pepamārō (mai i te pepa whēru, tapahia rānei te rango pepa o te kīhini kia haurua te hanga)
- He peita, ngā pene whītau, he pepa whakarākei rānei
- He tēpa whakapiri
- He aho, he wūru, he tuaina rānei.

Whāia ēnei tohutohu ki te hanga i ō ake karurua whakatata:

- 1) Whakarākeitia ō rango pepamāro. Mehemea kei te peita koe i ngā rango pepamāro, e koke ai koe, me tatari kia maroke rawa.
- 2) Whakapirihia ngā rango ki te tēpa whakapiri.
- 3) Tapahia te aho, tōna 1 mita te roa. Me roa tonu te aho kia kuhu atu ai tō upoko.
- 4) Whakapirihia ia pito o te aho ki ia rango pepamāro. Tōna tikanga ka rite tonu te āhua o ō karurua whakatata ki te pikitia ki raro iho nei. Pērā i tā te pūrākau, titiro atu ki waho me ō karurua whakatata, kia kite he aha rā ngā momo mea hei kimi māu.

*Te Pahite Pō*

## HE PUNA KUPU HE PUNA WHAKAMĀRAMA

panga

he kōrero, he pātai, he mahi rānei hei wero i te hinengaro o te tangata e kimi ai ia i te tīkanga me te māramatanga

wātaka

he rārangī, he mahere rānei e tonu ana i te wā e haere ai tētahi mahi

tūranga

he wāhi, he taunga waka ahakoa te momo - pahi, motokā, paihikara, tm, tm.

āhea

e pātai ana mō te wā e tū ai, e eke ai, e pā ai rānei tētahi āhuatanga

wehe

ka whakarere i tētahi wāhi ki wāhi kē

mahue

kua waiho tētahi mea, tētahi tangata rānei ki muri i te wehenga atu

weherua pō

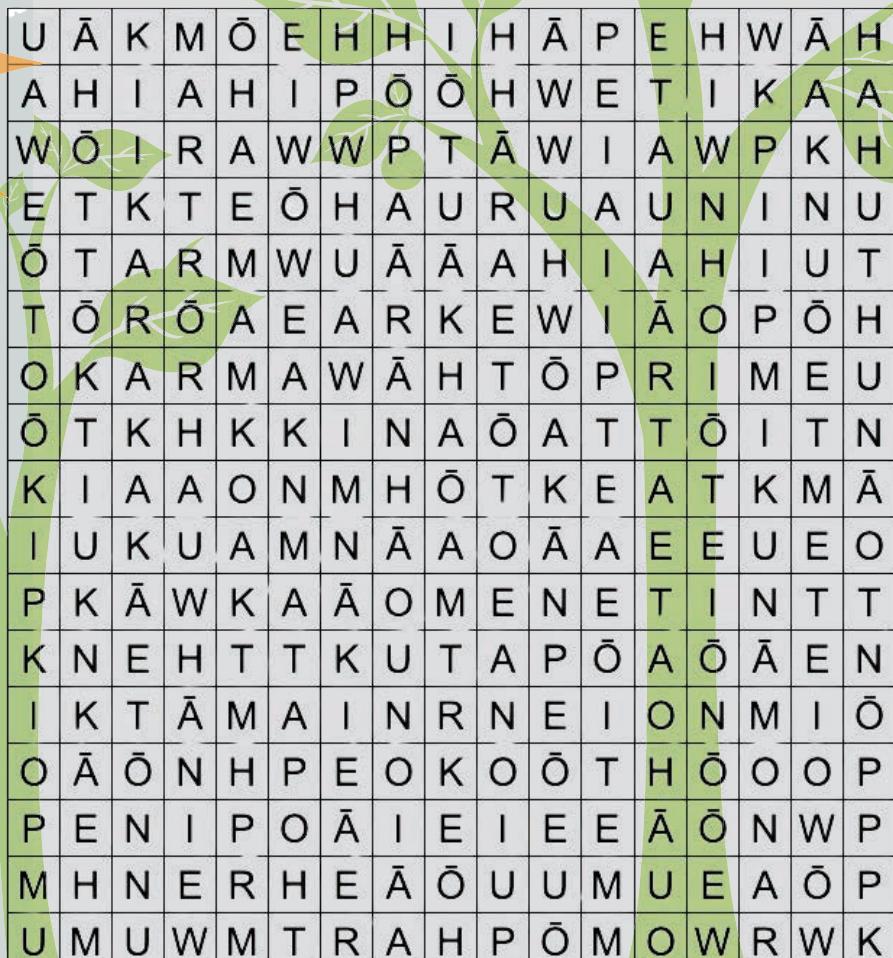
te pokapū o te pō, arā, te tekau mārua o ngā hāora i te pō

*Te Pahi i te Pō*

# TE RAPU I TE WĀ

*Te Ngohe Tekau mā Whitu*

Āta pānuihia te puka tautoko, Te Pahi i te Pō. Tuhia mai ngā kupu e tauhou ana ki a koe. Tērā pea ka kōrero atu ki tō whānau mō ēnei kupu, ka tiro rānei ki ngā rauemi tuihono hei āwhina i a koe. Rapua ngā kupu e hāngai ana ki te wā i te panga kimi kupu ki raro iho nei



## Puna Kupu

Hāora	Menetī	Ahiahī pō	Ata
Pō	Nō te	Ā te	Hei te
Ki te	I te	Koata pāhi	Hauwhā
Haurua	Hāwhe pāhi	Karakka	Ahiahī

*Te Pahi i te Pō*

# **KEI MAHUE I TE PAHI**

*Te Ngohe Tekau mā Waru*



Kei te eke pahi a Maea rātou ko tōna whānau ki Tūrangi. Tirohia te wātaka pahi e kite koe āhea rātou tae atu ai ki Tūrangi.



## **Ki te tūranga pahi o Tūrangi**

Te tūranga pahi o Te Whanganui-a-Tara	Te Teihana o Rerewhenua	Te tūranga pahi o Bulls	Te tūranga pahi o Tūrangi
wehe atu	wehe atu	wehe atu	tae mai
4:05pm	4:49pm	5:53pm	9:17pm
6:05pm	6:49pm	8:23pm	11:27pm
8:05pm	8:49pm	9:53pm	1:17am
10:05pm	10:49pm	11:53pm	3:17am
12:05am	12:49am	1:53am	5:17am

*Te Pahi i te Pō*

## **KEI MAHUE I TE PAHI**

*Te Ngohe Tekau mā Waru*



Āta pānuihia ngā rapanga ā-kupu, ka whakamahi ai i te tūtohi hei āwhina i a koe ki te whakautu i ngā pātai e whai ake nei.



- 1) Ka wehe atu a Maea rātou ko tōna whānau i te tūranga pahi o Te Whanganui-a-Tara a te 12.05am. Āhea rātou tae atu ai ki Tūrangi?
- 2) Hei āhea te pahi o Maea wehe atu ai i te tūranga pahi o Te Teihana o Rerewhenua?
- 3) Hei āhea te pahi o Maea wehe atu ai i te tūranga pahi o Bulls?
- 4) E hia ngā pahi ka haere atu ki Tūrangi mai i Te Whanganui-a-Tara?
- 5) Ki te mahue koe i te pahi ka wehe atu i Te Whanganui-a-Tara i te 4:05pm, hei āhea te pahi whai ake e wehe atu ai?
- 6) Ki te hiahia tae atu koe ki Tūrangi i mua i te weherua pō (12:00am), me eke i ēhea pahi?

*Te Pahi i te Pō*

## **TE PĀNUI I TE WĀ**

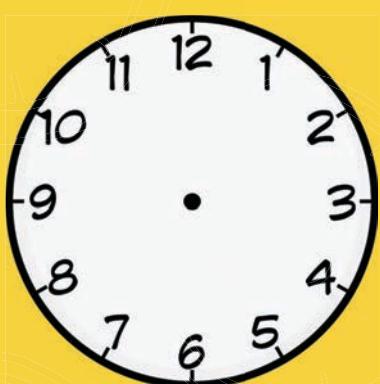
*Te Ngohe Tekau mā Iwa*

Kia whakawai koe ki te pānui i te wā mā  
te whakautu i ngā pātai ki raro iho nei.

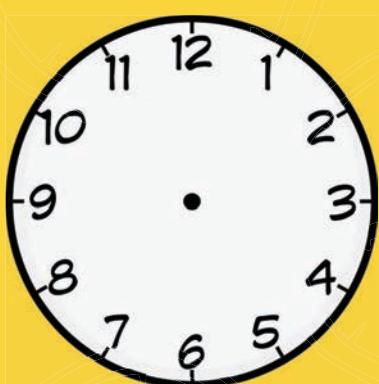
Tāngia ngā ringa o ia karaka kia rite ai ki  
te wā kei raro i ia karaka.



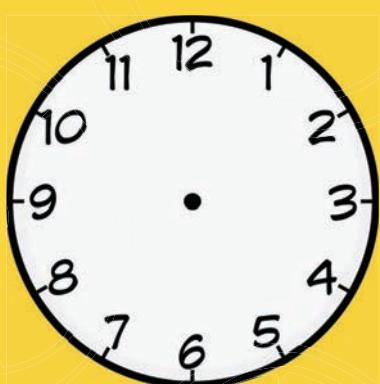
Tuhia te wā e whakaaturia ana e ia karaka ki ngā āputa.



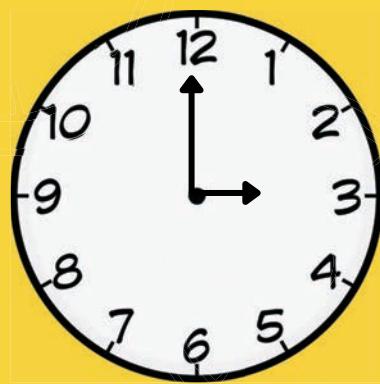
1) 3:03PM



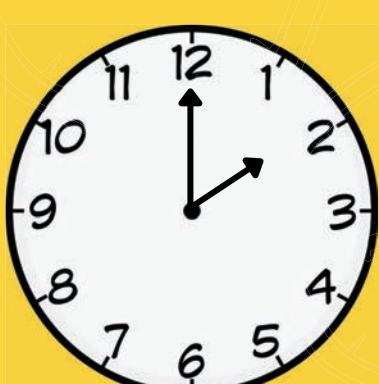
2) 9:20AM



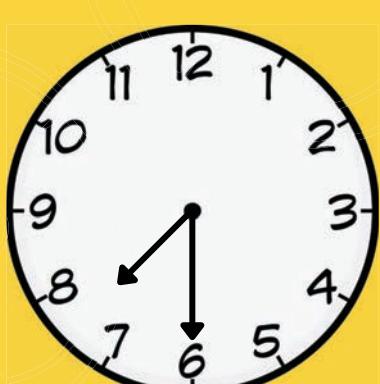
3) 6:50AM



4)



5)



6)

*Kua āta waiho i tēnei whārangi kia wātea nā  
runga anō i te momo ngohe i mua rā.*

*Te Pahii i te Pō*

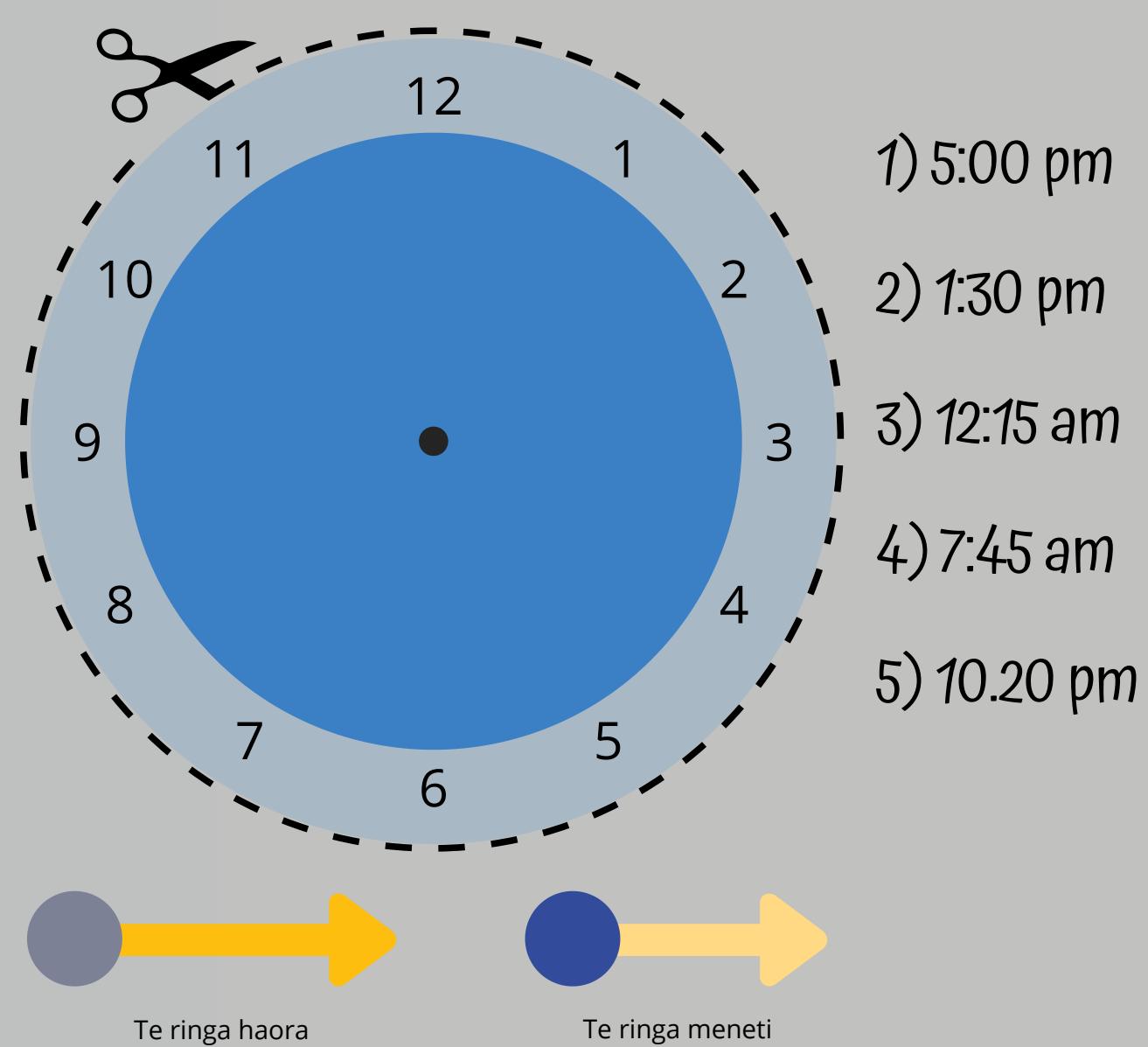
## TE HANGA KARAKA

*Te Ngohe Rua Tekau*



E rite ai koe i te wā e tika ana, ka whakawai koe ki te pānui i te wā mā te hanga i tō ake karaka. Tapahia te karaka me ūna ringa, kātahi ka tūhonotia ngā ringa ki te pokapū o te karaka me te pine pepa.

Whakaatuhia ēnei wā ki tō karaka:



# Te Poutama Pakō o te Pāngarau

## NGĀ WHAKAUTU

Te Ngohe Tuatahi

Te whakarōpū i te puna kupu

Te Ngohe Tuarua

1.180

2.3400

3.9000

4.4600

5.99000

6.1230

7.6500

8.7540

9.4490

10.7540

Te Ngohe Tuatoru

1.29

2.16

3.60

4.4

5.890

Te Ngohe Tuawhā

Ka kanorau ngā whakautu - kei te ākonga te tikanga.

Te Ngohe Tuarima

1.Thousands or 1000's

2.Hundreds or 100's

3.Tens or 10's

4.Ones or 1's

5.Tenths or 1/10's

Te Ngohe Tuaono

1.0 dots, 4 dots, 6 dots - 1 dots

2.3 dots, 9 dots, 6 dots, 1 dot - 4 dots

3.2 dots, 5 dots, 6 dots, 3 dots - 7 dots

4.5

5.6

6.a) 2615.4 b) 4072.9

Te Ngohe Tuawhitu

1.49

2.67

3.79

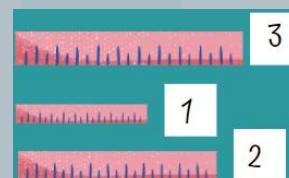
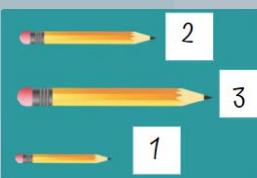
4.49

5.67

Te Ngohe Tuawaru

Ka kanorau ngā whakautu - kei te ākonga te tikanga.

Te Ngohe Tuaiwa



Te Ngohe Tekau

1.15 m

2.80 mm

3.6 m

4.24 cm

5.8 mm

# Te Poutama Pakō o te Pāngarau

## NGĀ WHAKAUTU

Te Ngohe Tekau mā Tahi

- 1.6.9 cm
- 2.3.6 cm
- 3.15.2 cm
- 4.4.7 cm
- 5.8.4 cm
- 6.6.7 cm

Te Ngohe Tekau mā Rua

Ka kanorau ngā whakautu - kei te ākonga te tikanga.

Te Ngohe Tekau mā Toru

- a) Tapawaru b) Taparima c) Tapawaru d) Tapawhitu
- e) Tapawaru

Te Ngohe Tekau mā Whā

Te tūtohi taparau:

Tapatoru	Tapawhā rite	Taparima
Tapaono	Tapawhitu	Tapawaru

Te tūtohu taparau me ngā tānga

Ka kanorau ngā whakautu - kei te ākonga te tikanga.

Te Ngohe Tekau mā Rima

Ka kanorau ngā whakautu - kei te ākonga te tikanga.

Te Ngohe Tekau mā Ono

He hanga karurua whakatata

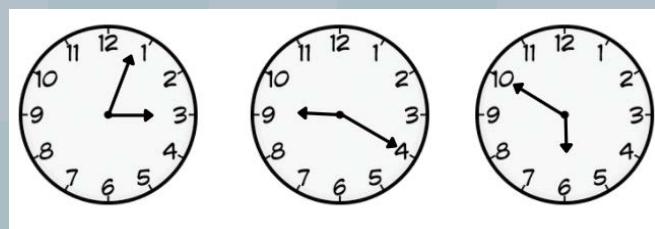
Te Ngohe Tekau mā Whitu



Te Ngohe Tekau mā Waru

- 1.5:17am
- 2.12:49am
- 3.1:53am
- 4.5
- 5.6:05pm

Te Ngohe Tekau mā Iwa



4.3:00 am or pm

5.1:00 am or pm

6.7:30 am or pm

Te Ngohe Rua Tekau

Te hanga karaka

# KOIA TE PAKŌ!



TE TĀHUHU O TE MĀTAURANGA  
MINISTRY OF EDUCATION

Te Kāwanatanga o Aotearoa



Hei tautoko tēnei rauemi i  
Tē Marautanga o Aotearoa