

Ask and Answer input text and questions: Te Pī Mīere by Te Aorere Riddell

Ask and Answer

One person *asks* the questions
One person *answers* the questions

The person who answers the questions is the bee expert

1. Kia ora, he tohunga pī mīere koe, nē?
2. Tēnā, whakamāramatia mai, he aha ngā wāhanga o te tinana o te pī mīere?
3. Noho ai te pī mīere ki hea, ā, he pēhea te āhua o te kāinga?
4. He aha ngā momo pī kei te kāinga kotahi e noho ana?
5. He aha te mahi o ia momo pī?
6. He aha ngā wāhanga o te oranga o te pī mīere?
7. He aha e kanikani ai te pī mīere?
8. Whakamāramatia mai me pēhea te pī mīere e mahi mīere ai?
9. He aha te mahi a ngā kaimahi pī?
10. He kōrero anō āu e pā ana ki te pī mīere?

Te Pī Mīere *Nā Te Aorere Riddell*

Te Rārangi Kōrero

- 2 Te pī mīere
- 3 Te kikokiko o te pī mīere
- 4 Ko te noho a ngā pī i roto i tō rātou kōhanga
- 6 Te oranga o te pī
- 10 Te kanikani mīere a ngā pī
- 10 Te awe o te kuini
- 12 Te whānautanga o te muinga
- 14 Te mahi mīere
- 15 He rārangi kupu

Te pī mīere

He maha ngā momo pī. Engari, ka whakarōpūtia te katoa o ngā momo pī ki ngā rōpū e rua. Ko te rōpū tuatahi me kī ko te rōpū noho takitahi. Ka noho tēnei momo pī ko ia anake, pēnei i te moke. Ko te rōpū tuarua me kī ko te rōpū noho tahi. He maha ngā pī e noho tahi ana i tēnei rōpū.

Ko te pī mīere he mū noho tahi. Arā, he maha rātou e noho tahi ana i roto i te kōhanga kotahi.

Te kikokiko o te pī mīere

E toru ngā wāhanga tinana o te pī mīere. He pēnei hoki ngā mū katoa. Ko ngā wāhanga:
ko te māhuna;
ko te hōpara;
ko te puku.

Kei te **māhuna** ngā hihi, ngā whatu, me ngā kauwae. E rua ngā momo whatu – i te taha o te māhuna ko ngā whatu nui e rua; i runga i te māhuna ko ngā whatu pakupaku e toru.

E mau ana ngā parirau me ngā waewae ki te **hōpara**.
E whā ngā parirau, e ono ngā waewae.

Kei ōna waewae takamuri ngā pēke hae e mau ana. Ka rarakutia te hae mai i tōna tinana me ōna waewae ki roto i ngā pēke hae. Ko te hae he tino momo kai mā ā rātou huhu e tipu ake ana.

Ko te muri ko tōna **puku**. I muri i tōna puku ko te **wero**. E rua ngā peke paitini kei te pūtake o tōna wero.

I te timohanga o tōna wero, ka rere te paitini ki roto.
I te rerenga atu o te pī, ka mahue mai ētahi wāhi o ōna whēkau, nā, ākuanei ka mate ia.

I roto i tōna puku ko te **puku mīere**. I a ia e kai ana i te waihonga o ngā putiputi, ka whakaputua ki tōna puku mīere, hei whakahoki māna ki te kōhanga.

Pēnei tonu i ētahi atu mū, kei waho kē te kōhiwi i tōna tinana.

Ko te noho a ngā pī i roto i tō rātou kōhanga

E toru ngā momo pī o ia kōhanga:

ko te kuini;
ko ngā kaimahi;
ko ngā karioi.

Kotahi anake te pī kuini, he mano tini ngā pī kaimahi.

Ko te kuini me ngā kaimahi, he wāhine katoa. Mai i te toru tekau mano ki te ono tekau mano ngā kaimahi o ia kōhanga.

Kei ia muinga, he ruarua ake ngā karioi i ngā kaimahi.

Ko ngā karioi, he tāne katoa. Ko te kuini anake e whakanoho tāne ana me te whakawhānau hēki kia tipu ake ai hei kuini, hei kaimahi hoki. Ka taea e ngā kaimahi te whakawhānau hēki, engari ko ā rātou uri he tāne katoa. Nā te kore whakanoho tāne a ngā kaimahi i whānau karioi katoa mai ai ā rātou uri.

Te oranga o te pī

E whā ngā wāhanga oranga o te pī:

tuatahi, ko te hēki;
tuarua, ko te huhu;
tuatoru, ko te tūngoungou;
tuawhā, ko te pī.

E rua ngā momo tiriwā ware pī i hangaia e ngā pī mō tō rātou kōhanga: ko ngā mea paku, ko ngā mea nui. Kei ngā tiriwā paku ka tipu ake ngā kaimahi. Kei ngā tiriwā nui ka tipu ake ngā karioi.

Mai i ngā hēki ka puta mai ko te huhu; ka whāngaihia e ngā kaimahi. Ka tipu haere ngā huhu, ā, ka purua ngā tiriwā e ngā kaimahi. I roto i ngā tiriwā nei ka tipu haere ko ngā tūngoungou, kātahi rātou ka puta mai ki waho hei pī.

I ngā rā **tuatahi, tuarua** o tō rātou oranga, ko tā rātou mahi he whakapai haere i te kōhanga.

I ngā rā **tuatoru, tuawhā** ko tā rātou mahi he whāngai i ngā huhu nui. Mai i te rā **tuarima** ka whāngai rātou i ngā huhu pakupaku. He mahi tino nui tēnei, te whāngai i ngā huhu. Kotahi mano e toru rau ngā wā i whāngaihia ia huhu i te rā kotahi.

Ka tae ki te tekau o ngā rā, ka whakarerekētia ā rātou mahi. Mō ngā rā e whitu ka tangohia e rātou ngā kai i mauria mai e ngā kaimahi pakeke ki te kōhanga. I kohikohia ēnei kai mai i ngā putiputi. Ka tangohia ngā kai nei, ka whakaputua ki roto i ngā tiriwā.

Kātahi ka puta atu rātou ki waho o te kōhanga ki te torotoro haere. Engari, kāore rātou i rere atu ki tawhiti. I te tuatahi, ka noho tata ki tō rātou kōhanga kia mōhio ai rātou ki tō rātou takiwā, kia mōhio hoki rātou kei whea ngā kai, te hae me te waihonga o ngā putiputi.

Kia tekau mā whitu rā, ka noho ngā kaimahi nei ki te tiaki i te tomokanga o tō rātou kōhanga. Ka pēnei tā rātou mahi kia tae ki te rā rua tekau mā tahi.

Nā, kua pakeke, ko tā rātou mahi ināianei ko te kōhi kai. Kia mate rā anō, koinei tā rātou mahi.

Ko ngā mea tino pakeke, ka rere ki te rapu wāhi hou hei kohikohi kai. I tō rātou kitenga, ka whakahokia atu te rongō kōrero nei ki ngā kaimahi.

Te kanikani mīere a ngā pī

Te taenga mai o ngā matataua nei ki te kōhanga, kātahi ka tīmata tā rātou 'kanikani mīere'. Te tikanga o te kanikani nei, he whakaatu ki ō rātou tāina kei whea ngā putiputi hou kua kitea e rātou.

Mā te kanikani nei ka mōhio ngā kaimahi i te aronga atu me te tawhiti atu o te wāhi hou nei.

Mā te kanikani nei ka mōhio hoki rātou te koki hei haerenga mā rātou ina wehe atu i te kōhanga. I runga i te tere o te kanikani ka mōhio ngā kaimahi te tawhiti o te wāhi kai. Ki te tino tere te kanikani, he tata ngā kai ki te kōhanga. Tērā e rawaka ngā hāora e kanikani ana te matataua.

Ka hoatu ētahi waihonga paku nei ki ngā kaimahi hei tauira kia mōhio ai rātou ko tēhea ngā putiputi e rapu nei rātou. Kātahi rātou ka rere tika ki te wāhi hou nei ki te kohikohi kai i aua putiputi.

Te awe o te kuini

Ehara te kuini i te kuini pēnei i te tangata. Kāore ia i noho hei rangatira mō ngā kaimahi. Engari, he tino nui tōna awe i runga i ngā pī katoa e noho ana i te kōhanga.

Ko tāna tino mahi ko te whakawhānau hēki. Mai i te kotahi mano rima rau ki te rua mano ngā hēki i whakawhānautia e ia, ia rā i te raumati.

Ko tētahi mahi, arā, ko te whakaputa i tētahi kai whakawāhira mā ngā kaimahi katoa – he wāhi iti nei mā tēnā, mā tēnā. Mā tēnei kai ka ū rātou ki a rātou ake mahi.

Te whānautanga o te muinga

He maha ngā tau ka ora te muinga pī mīere. Ahakoa te kaha o te makariri i te takurua, ka ora rātou nō te mea i mui rātou. Nā tēnei tūmomo noho ka mahana tētahi i tētahi, nā, ka ora rātou. Ko te muimuinga o ngā pī tō rātou tikanga whānautanga. Ka taka tēnei āhuatanga i te kōanga.

Te mahi tuatahi kia hangaia he kuini hou. Ka hangaia ngā tiriwā kuini, ka whakawhānautia e te kuini he hēki ki roto ki tēnā, ki tēnā. Te putanga mai o ngā huhu, ka kai rātou i tētahi kai tino mīharo, tino rangatira. Nā ngā kaimahi i tuha te tiere nei hei kai mā ngā huhu. Koinei anake tā rātou kai, kia tipu ake rātou hei kuini.

Te putanga mai o te kuini tuatahi i tōna tiriwā, tere tonu tāna turaki i te katoa o ngā tiriwā kuini. Ka patupatu haere i ngā huhu kuini me ngā tūngoungou me ētahi atu kuini kua puta mai. Na, kua noho ko ia anake hei kuini.

I mua i tēnei, kua wehe kē te kuini kuia i te kōhanga. He mano tini ngā kaimahi me ētahi karioi ruarua nei i haere i tōna taha hei hoa mōna. Ka noho te muinga pī nei ki runga i tētahi peka mō tētahi wā poto. E karangatia ana tēnei he muimuinga.

Mai i reira ka rere atu ngā pī matataua ki te rapu i tētahi wāhi pai hei hanga kōhanga hou. Ka hoki mai ngā matataua nei, ka kanikani tēnā i tana kanikani, tēnā i tana. Ōrite tonu tēnei kanikani ki tērā o te kanikani mīere, arā e whakaatu ana ki te minenga kei whea ngā wāhi nei kua kitea e rātou. Taro rawa ka whakatau ko tēhea te wāhi pai mō rātou. Kātahi ka rere atu te muinga pī nei ki te hanga muinga hou.

Te mahi mīere

He arero roa tō te pī mīere hei kohi i ngā waihonga putiputi me te mīere tōmairangi. Ka heke atu ēnei, me te hau īhi ki tōna puku mīere. Hei reira, ka huri hei mīere waiwai. Ka kawea te mīere waiwai nei ki roto ki ngā tiriwā mīere kia maroke ake. Kātahi ka purua ki te ware pī kia noho pai ai mō te wā e hiahiatia, arā te wā o te makariri.

Ka mauria e te kaimahi pī te pīhangaiti o te kōhanga ki tētahi whare mīere. Ka whakaweratia e ia he māripi hei tapahi i ngā puru o ngā tiriwā mīere. Kātahi ka kuhuna ki roto i te waea mata kei roto i te taramu. I te wā e hurihuri ana te waea mata, ka whiua ngā mīere ki ngā taha o te taramu, ka rere whakararo ki te papa o te taramu. Ka puta mā te kōrere, ā, ka tātaritia ki roto pounamu hei kai mā tātou.

He rārangi kupu

aronga	direction
awe	influence
hae	pollen
hangaia	create
hau īhi	enzyme
heke pī	wild bees nest
huhu	larva
kaimahi pī	bee-keeper
kai rangatira	queen jelly
kai whakawāhira	queen substance
karioi	drones
kauwae	mandible (jaw)
kikokiko	anatomy
kōhanga	hive
kōrere	tap
matataua	scouts
mui	cluster
muimuinga	swarm
pīhangaiti	honeycomb
pēke hae	pollen sac
pēke paitini	poison bags
puare ngā	spiracles (breathing organs)
puku mīere	honey stomach
purua	sealed
repe huware	salivary glands
taramu	drum

taro rawa	eventually
tātari(-tia)	filter
tauirā	sample
tiere	jelly
tiriwā kuini	queen cells
tiriwā ware pī	beeswax cells
tūngoungou	pupa
waea mata	wire mesh
waihonga	nectar
whakahaere	control
whakanoho tāne	mate
whakaputa	excrete
whakaputu(a)	store
whakawhānau	lay
whānautanga	reproduction
whēkau	innards

Notes for the teacher: Te Pī Mīere

The book *Te Pī Mīere* was published by Huia Publishers for the Ministry of Education in 1997 as part of *Ngā Kete Kōrero* series. It is a challenging text and suitable for more advanced students. It will be important to introduce students to the range of technical vocabulary in the book, and to relate the text to others that describe life cycles.

You will find other diagrams and descriptions of life cycles in the *Pūao* series of books (go to www.huia.co.nz and search for the following titles: *Te Toke*, *Te Rō*, *Te Pūpū*, *Te Pūngāwerewere*, *Te Wētā*, *Te Titiwai*, *Te Rango*, *Te Kapokapowai*.)

The original published book *Te Pī Mīere* includes excellent diagrams and photographs, and these will also be useful for making a range of learning tasks, for example:

- * There is a diagram that shows the process the honey bee uses to make honey and a section of text that describes that process: '*Te mahi mīere*'. This diagram could be used as the input to an **information transfer** task, with the students producing a written or spoken text based on the diagram, then checking the text they produce against the original written text.
- * There is a diagram that shows the structure of the anatomy of the honey bee, and a section of text which describes it. This could be used for a **listen and label**, or **listen and draw** task. For Listen and Label, the teacher would make a version of the diagram without the labels. The teacher (or a student) reads out the section of text that describes the anatomy, and the students write in the labels in the correct places on the diagram. For Listen and Draw, the teacher reads the text, the students draw what they hear, then subsequently check their drawing against the diagram in the book.
- * If these same exercise types were repeated with different input texts and diagrams, such as those found in the *Pūao* series listed above, the students would be getting repeated opportunities to be exposed to and produce key technical vocabulary for this type of text.