**HEI MAHI: He patapatai mō ngāi hekaheka**

**Te kaupapa**

I tēnei mahi, ka whakamātau ngā ākonga i tō rātou mōhio ki ngā hekaheka. He patapatai tuihono, heoi anō, ka taea anō te mahi ki te pepa. Ka pai te patapatainga nei hei mahi tuatahi e kitea ai e pēhea rawa ana te mōhio o ngā ākonga ki te hekaheka, hei aromatawai whakakapi rānei, hei mahi hāhau pārekareka rānei e tūtaki ai ngā ākonga ki ētahi o ngā āhuatanga, ngā wāhanga me ngā painga o te hekaheka.

Kia oti tēnei mahi, te tikanga kua āhei te ākonga:

* te whakautu pātai whāiti mō te hekaheka
* te tirotiro, te whakatika rānei i āna whakautu, mā te toro i ngā rauemi ipurangi e hāngai ana
* te tautohu i ētahi o ngā hekaheka o Aotearoa me ngā kāinga noho o tēnā, o tēnā.

**He kōrero mā te kaiako**

***Kōrero whakataki/whakamārama whānui***

Me kī kei ngā wāhi katoa te hekaheka – kei te hau takiwā e kapohia atu nei ki ō pūkahukahu, kei te maha noa atu o ngā kai ka pau i a koe, kei te oneone ka takahia e te waewae, kei ngā rākau, kei ngā otaota e karapoti ana i a koe, kei ngā mirumiru i te hukahuka kitea ai i ngā wai o te kōawa, kei runga, kei roto anō i a koe.

Nā runga i te mea ehara te hekaheka i te tipu, i te kararehe rānei, ka pai te hekaheka hei kaupapa matapaki i te akomanga mō ngā āhuatanga me ngā whakarōpūtanga o ngā mea ora

Kei te ākonga te tikanga ina kawea te patapatai [ki te ipurangi](#Hekorero), ki te pepa rānei. He pātai whānui, he pātai whāiti anō kei roto mō ngā hekaheka o Aotearoa.

Kei ngā rauemi e whai ake nei ētahi kōrero whānui mō ngāi hekaheka, me ētahi kōrero anō mō ngā mea o Aotearoa. Ka pai ina whakamahia e ngā ākonga hei tirotiro, hei whakatika i ā rātou whakautu, hei whakawhānui anō i ō rātou mātauranga.

***He rauemi mō ngā hekaheka***

[Tēnei mea te hekaheka](http://www.sciencelearn.org.nz/resources/2663-tenei-mea-te-hekaheka)

[Ngā hurihanga ora o te hekaheka – ngā pua atua me ētahi atu hanga](http://www.sciencelearn.org.nz/resources/2665-nga-hurihanga-ora-o-te-hekaheka-nga-pua-atua-me-etahi-atu-hanga)

[Ngāi hekaheka – pai mai, kino mai, anuanu mai](http://www.sciencelearn.org.nz/resources/2667-ngai-hekaheka-pai-mai-kino-mai-anuanu-mai)

***Ngā whakautu***

* + - 1. A
      2. B
      3. A
      4. C
      5. B
      6. A
      7. B
      8. A
      9. B
      10. C
      11. B
      12. A
      13. C
      14. B
      15. A

**He kōrero mā te ākonga**

Tēnā hoatu he porohita ki te whakautu e whakaaro ana koe kei te tika.

1. He aha ētahi take e rua he uaua te kite i te nuinga o ngā hekaheka?
2. Nā te mea he tino moroiti ētahi, kei te noho huna rānei ki ō rātou kāinga noho.
3. He hanga pūihi, ka tahi, he kore nō te tangata e mōhio he aha tāna e kimi ana, ka rua.
4. Ko te rongo a te ihu te tino ara e mōhiotia ai kei hea ngā hekaheka.
5. He aha tētahi tino mahi koiora a te tipu e kore e taea e te hekaheka?
6. Te āhei ki te whakaputa pakiaka, akaaka mōna.
7. Te hanga i āna ake kai ki te aho o Tamanuiterā me te hauhā o te hau takiwā.
8. Te āhei ki te whakaputa uri.
9. He aha ētahi tino āhuatanga o te kīrehe kāore i rite ki ō te hekaheka?
10. Te neke haere ki te kimi kai māna.
11. Te hiahia ki te hāora e ora ai ia.
12. Te hiahia ki te kai e ora ai.
13. He aha ngā hanga/wāhanga matua e toru o tēnei mea te hekaheka?
14. Te taupoki, te hēki me ngā pihapiha.
15. Ngā pua, ngā kākano me ngā rau.
16. Te torohihi, te ropihua me te pua atua.
17. Me pēhea te hekaheka e kimi kai ai māna?
18. Ka whakamahia he matū hei kimi i ana kai.
19. Mā te tuku torohihi rānei, te tuku pua atua rānei kia rere ki wāhi kē.
20. Ka tahuri ki ngā rārangi kai i te hokomaha.
21. Me pēhea e kitea ai te pua atua o te hekaheka?
22. Mā te karu whakarahi rānei, mā te tānga pua atua rānei.
23. Mā te whakamahi rama kawekawe.
24. Mā te whakamahi karurua whakatata.
25. Mō te harore e mōhio nuitia ana, he aha te take i pērā ai te āhua o tōna taupoki?
26. Hei tiaki i te puna kai e noho ana i raro iho.
27. Kia kore ai e mākū ngā pua atua e noho marumaru ana ki raro – kia rere atu ai ngā pata ua.
28. Hei poapoa i ngā ngārara koia tāna kai.
29. He pēhea te āhua o te kāinga noho pai ki te hekaheka?
30. He wāhi haukū, he kai kei reira.
31. Te rūma moe o te tangata taruweka.
32. Te oneone.
33. Ko tēhea kaupeka o te tau te wā pai mō te kite i ngā hekaheka māori e kaha tupu ana ki te papa o te ngahere?
34. Te kōanga.
35. Te ngahuru.
36. Te raumati.
37. He aha ētahi momo rākau e toru o te ngahere māori he kaha te tupu o te hekaheka ki ngā pakiaka, i te oneone rānei e pātata ana ki ngā pakiaka?
38. Te kauri, te tōtara me te kahikatea.
39. Te pōhutukawa, te whītoa me te purukamu.
40. Te mānuka, te kānuka me te tawai.
41. He pēhea te āwhina a te hekaheka i te rākau, mā te noho pātata atu, ki roto tonu rānei i ōna pakiaka?
42. He kākahu, he whakamahana i ngā pakiaka o te rākau i te wā o te makariri.
43. He kapo i te wai me ngā taiora o roto mai i te oneone.
44. He tuku kai tāpiri ki te rākau.
45. He aha tētahi hononga koiora i waenganui i ngā hekaheka, ngā tipu me ngā kīrehe o te ngahere?
46. Te māwhaiwhai kai.
47. Te taupuhipuhi.
48. Te mekameka kai.
49. He aha te mahi a te īhi i te mahi parāoa?
50. He hoatu tāwara tino reka.
51. He mahi kia mohou te parāoa, kia kaua e tere kino te āhua.
52. He whakapiki i te parāoa kia kōmāmā ai te āhua.
53. Hei aha te haumaru-koiora?
54. Hei whakarite mahi mā ngā kurī tūtei pērā i te beagle.
55. Hei ārai, hei pā tūwatawata mō Aotearoa, kia kore ai e uru mai he koiora kino, arā, he kīrehe, he tipu, he hekaheka, he moroiti kino.
56. Hei ārai atu i te mate *Sclerotina* i ngā māra kūmara.
57. He aha tētahi pānga kino ki te ahumāra e takea mai ana i te hekaheka i Aotearoa nei?
58. He whakakino i ngā huawhenua pērā i te kūmara me te taewa.
59. Te tahumaero tōtorongū kai huawhenua.
60. Te tahumaero ‘tipi hēpapa’ ka ahu mai i te psyllid tōmato/rīwai.