

Approach: One to one
 Focus: Adaptation differences between two New Zealand birds
 Resources: Picture A (kiwi), picture B (kea)

Year: 4 & 8

Questions / instructions:

In this activity you will be looking at two New Zealand birds. Look at the pictures of the kiwi and the kea.

Hand out pictures.



[Illustrations sourced from: Gunson, D. (illus.) Crowe, A. (2001). Which New Zealand Bird? Auckland: Penguin Books NZ.]

1. Tell me how their feathers are different.

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|------------------------|-------------------|-------------------|
| different colours | 59 (62) | 47 (55) |
| different textures | 37 (33) | 40 (46) |
| different sizes/shapes | 45 (46) | 68 (74) |

2. What does the kiwi use its feathers for?

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|--|-------------------|-------------------|
| weather protection (warmth, keeping dry) | 66 (61) | 79 (76) |
| camouflage | 19 (24) | 24 (30) |

3. What does the kea use its feathers for?

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|--|-------------------|-------------------|
| weather protection (warmth, keeping dry) | 37 (30) | 48 (42) |
| camouflage | 9 (8) | 15 (23) |
| flight | 76 (82) | 77 (76) |

Now look at the beaks of the two birds.
 Allow time.

4. What kind of food would the kiwi's beak help it to get?

5. How could the kiwi's beak help it to get that kind of food?

listed types of food or locations of food that the kiwi's beak is particularly suitable to get

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|--|-------------------|-------------------|
| listed types of food or locations of food that the kiwi's beak is particularly suitable to get | 53 (48) | 76 (72) |

explained accurately why the kiwi's beak is particularly suitable for some types of food

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|--|-------------------|-------------------|
| explained accurately why the kiwi's beak is particularly suitable for some types of food | 62 (61) | 76 (83) |

6. What kind of food would the kea's beak help it to get?

7. How could the kea's beak help it to get that kind of food?

listed types of food or locations of food that the kea's beak is particularly suitable to get

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|---|-------------------|-------------------|
| listed types of food or locations of food that the kea's beak is particularly suitable to get | 14 (16) | 29 (30) |

explained accurately why the kea's beak is particularly suitable for some types of food

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|---|-------------------|-------------------|
| explained accurately why the kea's beak is particularly suitable for some types of food | 29 (31) | 47 (42) |

Look at the feet of the two birds.

Allow time.

8. Why are the kiwi's and kea's feet different from each other?

kiwi's feet good for walking/balancing on ground

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|--|-------------------|-------------------|
| kiwi's feet good for walking/balancing on ground | 52 (61) | 83 (87) |

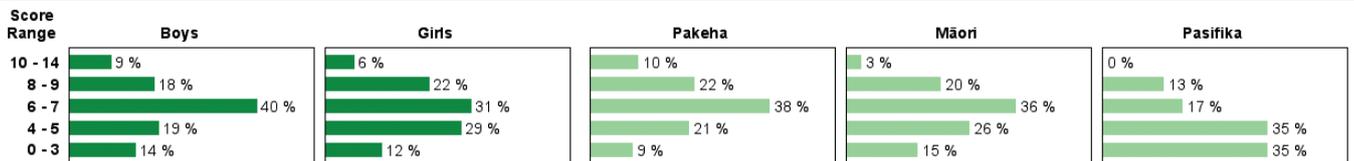
kea's feet good for holding onto perches/branches

| | 2007 ('03) year 4 | 2007 ('03) year 8 |
|---|-------------------|-------------------|
| kea's feet good for holding onto perches/branches | 59 (59) | 82 (86) |

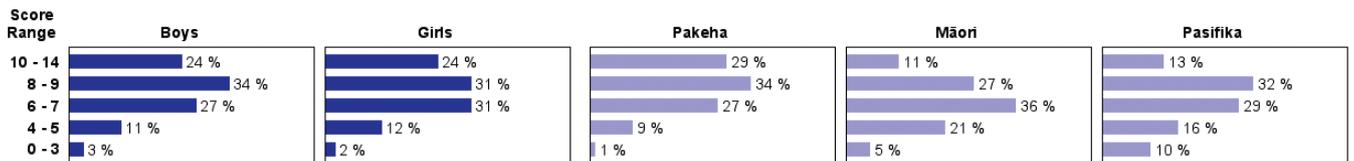
| Total score: | 10-14 | 8 (8) | 24 (17) |
|--------------|-------|---------|---------|
| | 8-9 | 20 (23) | 33 (53) |
| | 6-7 | 35 (25) | 29 (25) |
| | 4-5 | 24 (31) | 12 (3) |
| | 0-3 | 13 (13) | 2 (2) |

Subgroup Analyses:

Year 4



Year 8



Commentary:

This task showed strong progress from year 4 to year 8. There was a particularly large performance difference between year 4 Pakeha and Pasifika students.