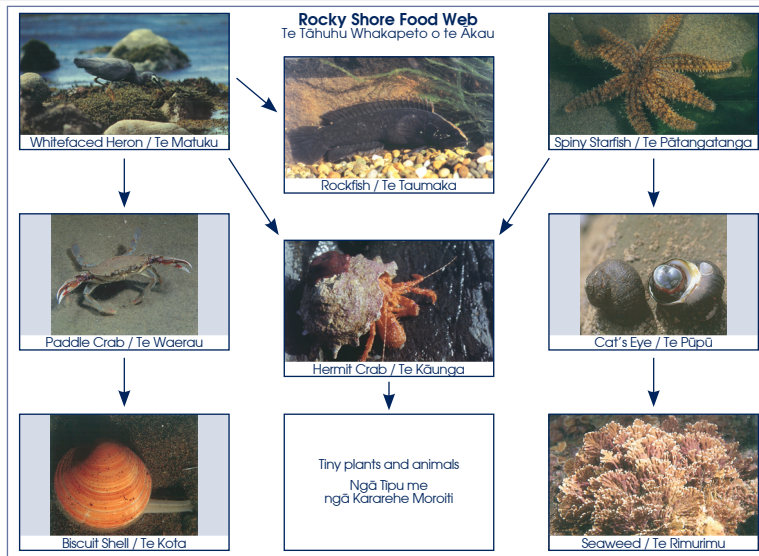


Approach: One to one
 Focus: Understanding food web dynamics
 Resources: Food web picture

Year: 8



Illustrations sourced from:
 Paddle Crab, Cat's Eye, Sea Biscuit – Enderby, J., Enderby, T. (photo); Stace, G. (1997). *What's on the Beach?*; Auckland: Penguin Books.
 Seaweed – Enderby, J., Enderby, T. (photo); Stace, G. (1998). *What's on the Rocks?*; Auckland: Penguin Books.
 Hermit Crab, Starfish, Heron, Rockfish – Gray, P. (photo); Gray, P. (1997). *New Zealand Rocky Shore*; Alexandra: Central Otago Education Centre.

Questions / instructions:

Here is a food web that shows what animals on the rocky shore eat.

- What eats the seaweed? **Cat's Eye**
- What could happen to the other animals if most of the hermit crabs got sick and died?
 less food for whitefaced heron
 less food for spiny starfish
 more tiny plants and animals
 whitefaced heron eat more rockfish
 whitefaced heron eat more paddle crab
 spiny starfish eat more cat's eye
- What could happen to the other animals if more whitefaced heron started feeding at the rocky shore?
 less rockfish
 less paddle crab
 less hermit crab
 more biscuit shell
 more tiny plants and animals

% response
 2007 ('03)
 year 8

82 (85)
 36 (30)
 37 (32)
 9 (4)
 10 (10)
 12 (13)
 12 (9)
 41 (40)
 41 (42)
 38 (34)
 11 (10)
 5 (6)

- What are some things that the cat's eye does to stop other animals eating it?
 hides in its shell
 hides in crevices
 camouflages itself
 sucks onto rocks
- What are some things that the paddle crab does to stop other animals eating it?
 hides in crevices
 uses pincers
 moves away
 camouflages itself

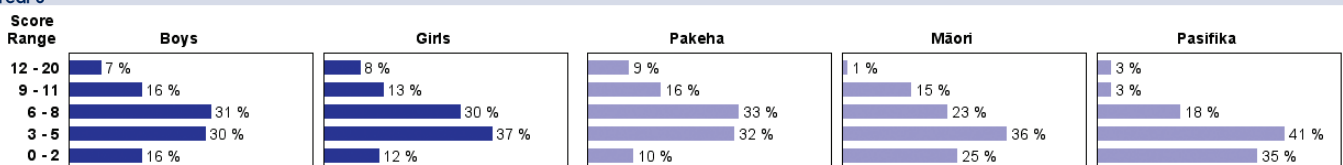
Total score: 12–20
 9–11
 6–8
 3–5
 0–2

% response
 2007 ('03)
 year 8

76 (82)
 6 (6)
 10 (12)
 28 (36)
 17 (18)
 79 (72)
 31 (32)
 23 (32)
 7 (6)
 15 (13)
 30 (41)
 34 (29)
 14 (11)

Subgroup Analyses:

Year 8



Commentary:

Only about one quarter of year 8 students showed strong understanding of this food web. There was no evidence of meaningful change between 2003 and 2007.