Approach:	One to one
Focus:	Rivers and their effect on the lanvd
Resources:	2 pictures

Year: 4 & 8

Questions / instructions:

Show picture 1.

Here is a picture of part of a river.

1. Where could this river have started?

2. Where could this river end up?

Show picture 2.
[substitute resource due to copyright.]

Over a long time this river has changed the land that it is running through.

3. How has the land changed because of the river?

4. How has the river caused those changes?

Illustrations sourced from:
1: Flying Fish. Available: http://www.flyingfish.co.nz/new_zealand_photo_library202/rivers_and_gorges1/k033.jpg (March, 2002).
2: Flying Fish. Available: http://www.flyingfish.co.nz/new_zealand_photo_library202/rivers_and_gorges1/k016.jpg (May, 2008).

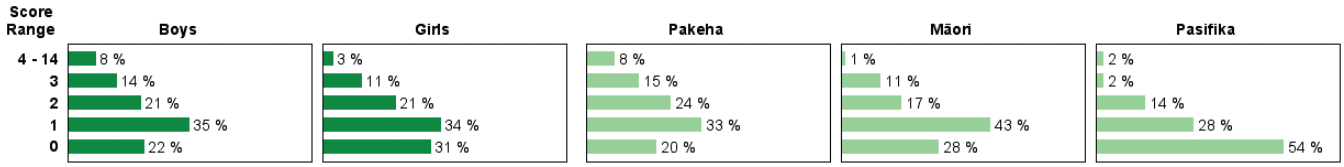
	% response 2007 ('03) year 4	year 8
mountains/hills/glacier	14 (21)	39 (41)
(small) streams	5 (5)	7 (3)
spring/underground source	2 (1)	4 (2)
(inland) lake/dam	11 (11)	18 (15)
sea/ocean	49 (55)	75 (73)
lake/dam	14 (14)	28 (25)
another river	4 (5)	6 (9)

Mentioned:

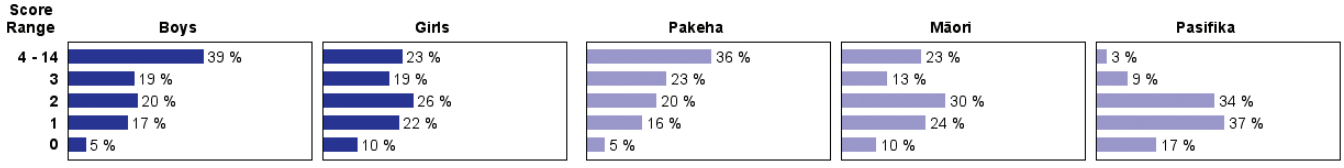
		% response 2007 ('03) year 4	year 8
Erosion effects: *(wearing away of soil/rock, creating valleys/cliffs)*	detailed response	3 (6)	14 (16)
	mentioned	13 (13)	28 (28)
	not mentioned	84 (81)	58 (56)
Depositing effects: *(rocks, soil, timber left downstream, creating gravel, plains, broad valleys)*			
	detailed response	1 (1)	3 (2)
	mentioned	6 (3)	14 (17)
	not mentioned	93 (96)	83 (81)
effects of steepness/speed of flow *(high erosion in steep areas, depositing in flat areas)*		1 (2)	7 (5)
irrigation effects *(providing water for vegetation/animals)*		14 (12)	15 (21)
soil benefits in valleys/plains from periodic flooding		0 (1)	1 (3)
Total score:	4–14	6 (7)	31 (31)
	3	12 (15)	19 (17)
	2	21 (24)	23 (28)
	1	35 (30)	20 (16)
	0	26 (24)	7 (8)

Subgroup Analyses:

Year 4



Year 8



Commentary:

This task showed substantial improvements in performance from year 4 to year 8, with little change at either level between 2003 and 2007. Boys performed significantly better than girls at both year levels, while year 8 Pasifika students averaged lower than the other groups.