

Approach: One to one
 Focus: Sand dunes: function and protection
 Resources: 2 photos

Year: 4 & 8

Questions / instructions:

This activity is about the sand dunes that can be seen at some beaches.

Give student photo 1.



Here is a photo of a beach with sand dunes.

1. What do you think sand dunes are good for?

- provide protection from the sea for the land and buildings further inland
- protect coast from being eroded by waves/sea/storms
- habitat for plants and creatures
- nice to look at or play in/on/among

Give student photo 2.



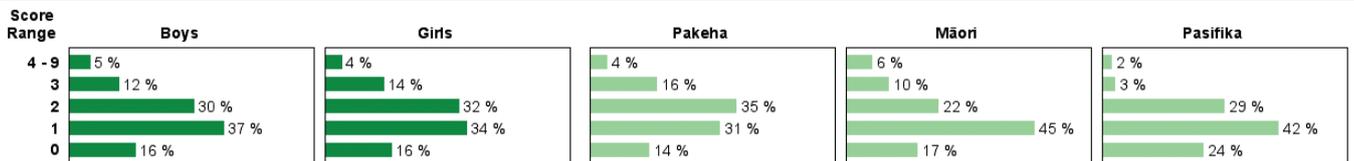
Here is a photo of another beach with sand dunes.

	% responses		% responses	
	y4	y8	y4	y8
2. How are these dunes different to the dunes in the first photo?				
much steeper (on ocean side)			36	56
less/poorer vegetation			19	12
Sand dunes closest to the beach change often. They build up and wear away, or erode, because of the forces of the wind and the water. In this photo these dunes have eroded and have become very steep.				
3. What could be done to help prevent the dunes from being eroded or getting too steep?				
plant suitable plants on the dunes			7	13
stop erosion from people, animals and vehicles climbing on the dunes			4	6
do not allow sand to be taken from the dunes			0	0
Total score:			4-9	4
			3	13
			2	31
			1	36
			0	16
			9	24
			24	32
			25	32
			24	32
			9	24

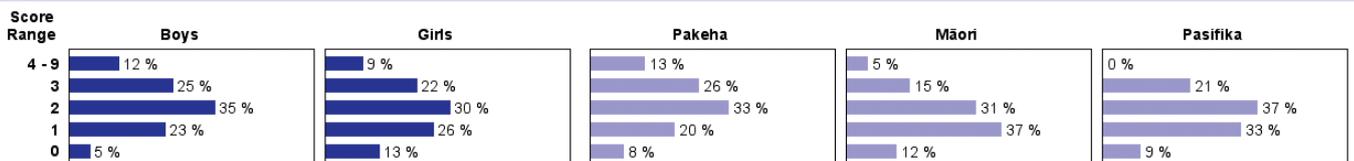
Images sourced from:
 1: Hesp, P., <http://www.massey.ac.nz/~wwglobal/Hesp/dunes.htm> (March, 2007).
 2: Coney, S., <http://www.piha.co.nz/gfx/storms.JPG> (March, 2007).

Subgroup Analyses:

Year 4



Year 8



Commentary:

Most students showed very limited understanding of coastal erosion processes and protection.