

Approach: One to one  
 Focus: Understanding weather map symbols  
 Resources: 2 weather maps, picture

Year: 4 & 8

**Questions / instructions:**



[Interislander-Arahura.jpg. Retrieved from: http://www.discovernewzealand.com/default.aspx?DN=b6f9d0e0-b400-4ba9-b158-eb3dad4471c2 Tourism Holdings Ltd (May 2008)]

**Show picture.**

Here is a picture of a ferry boat that goes from the North Island of New Zealand to the South Island across Cook Strait. People who travel on the ferry are always keen to know what the weather will be like when the boat is going.

**Show map one.**

This map shows the weather for one day. There is a red dotted line to show you where the boat will be going from the North Island to the South Island.

1. What do you think the weather will be like on this day for going on the ferry boat?

2. How does the map tell you that the weather will be like that?

- 'H': means high pressure/anticyclone  
 means high related to temperature/hot  
 no relevant comment
- no close-together circles/lines (isobars) mean little wind

	year 4	year 8
calm	3 (4)	16 (10)
clear, fine/sunny	25 (29)	28 (38)
hot, warm (and/or cool at night)	55 (50)	51 (47)
a good day	13 (17)	25 (20)
	0 (1)	4 (6)
	15 (21)	27 (27)
	44 (39)	37 (33)
	41 (39)	32 (34)
	1 (3)	7 (7)



**Show map two.**

This map shows the weather for another day.

3. What do you think the weather will be like on this day for going on the ferry boat?

- windy
- southerly
- (relatively) cool/cold
- a bad day
- cloudy/rainy/stormy

4. How does the map tell you that the weather will be like that?

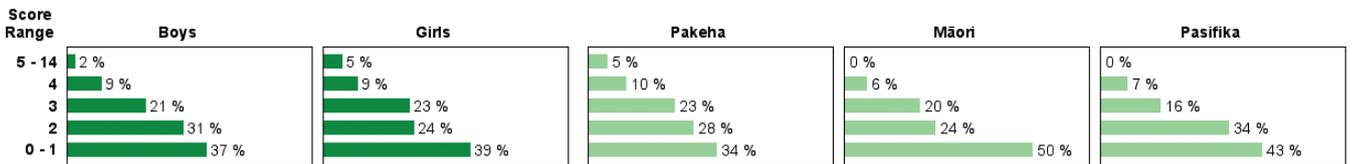
- 'L': means low pressure/depression means low related to temperature/cold  
 no relevant comment
- circles/lines close together (isobars) mean wind
- location of lines, front, 'L' – all suggest southerly (at least one mentioned and that it suggests southerly)
- cold front symbol supports cold temperature

**Total score:** 5–14

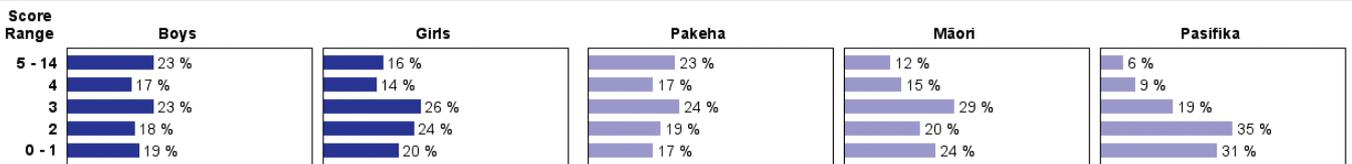
	year 4	year 8
	43 (50)	67 (67)
	1 (1)	3 (5)
	31 (31)	41 (41)
	9 (16)	19 (15)
	31 (25)	24 (30)
	1 (0)	5 (7)
	11 (8)	32 (39)
	29 (29)	12 (12)
	59 (63)	51 (42)
	16 (16)	35 (26)
	2 (2)	6 (7)
	2 (0)	9 (11)
	3 (9)	20 (23)
	4 (9)	16 (18)
	3 (22)	24 (24)
	2 (28)	20 (22)
	38 (40)	20 (13)

**Subgroup Analyses:**

**Year 4**



**Year 8**



**Commentary:**

Students at both year levels showed quite limited understanding of the meaning of the symbols H and L on weather maps, tending to associate them with temperature rather than air pressure. In fact, an H is not always associated with warm weather or an L with cold weather. Overall, performance was quite low, with little evidence of change between 2003 and 2007.