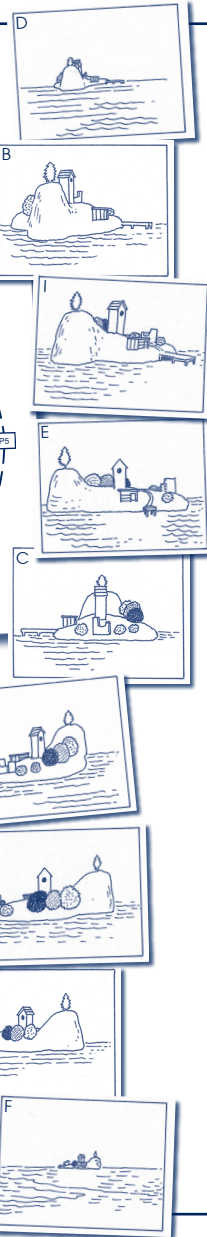
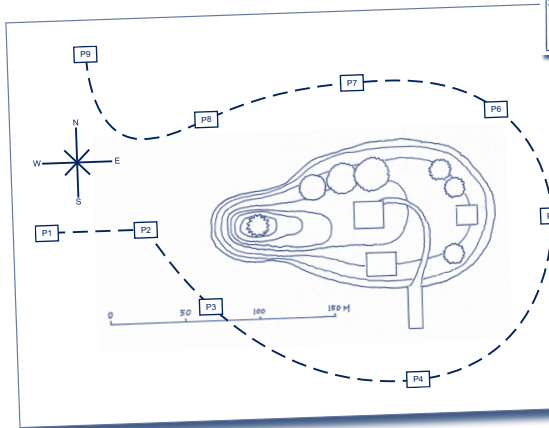


Approach: Independent
 Focus: Interpreting topographical maps
 Resources: Map, 9 pictures

Year: 4 & 8

Questions / instructions:

A sailor saw this island in the distance. She took pictures of the island as she sailed around it.



1. Put the pictures in the order that they were taken as the sailor went round the island. The first one has been done for you.

| | | |
|----------------------|---------|---------|
| Picture 1 = <u>D</u> | | |
| Picture 2 = <u>B</u> | 44 (37) | 77 (78) |
| Picture 3 = <u>I</u> | 34 (32) | 73 (75) |
| Picture 4 = <u>E</u> | 37 (38) | 75 (78) |
| Picture 5 = <u>C</u> | 30 (29) | 68 (72) |
| Picture 6 = <u>H</u> | 24 (25) | 59 (58) |
| Picture 7 = <u>G</u> | 28 (29) | 59 (58) |
| Picture 8 = <u>A</u> | 24 (23) | 59 (58) |
| Picture 9 = <u>F</u> | 57 (62) | 86 (90) |

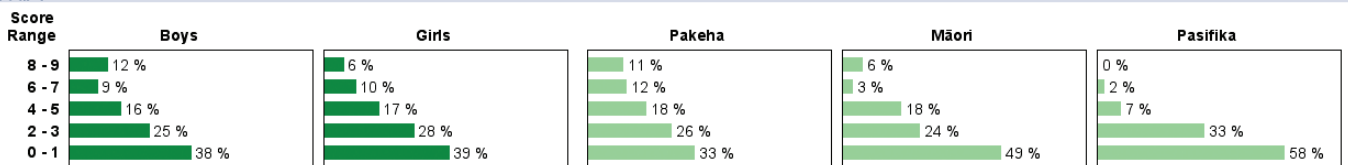
2. Which compass direction did the sailor come from?

| | | |
|---------------------|---------|---------|
| South | 8 (11) | 6 (5) |
| Total score: | | |
| 8-9 | 9 (8) | 44 (42) |
| 6-7 | 9 (11) | 13 (20) |
| 4-5 | 17 (15) | 19 (18) |
| 2-3 | 26 (28) | 13 (12) |
| 0-1 | 39 (38) | 11 (8) |

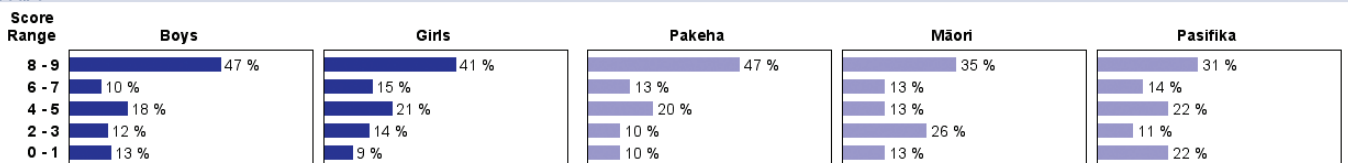
[Illustrations sourced from: Robinson, I. (1995). *Mathscheck 6*. Melbourne: Collins Dove.]

Subgroup Analyses:

Year 4



Year 8



Commentary:

The ability of students to interpret a topographical map improved greatly from year 4 to year 8. Most year 4 students had very limited success, whereas most year 8 students had little or no difficulty. Performance was similar in 2003 and 2007. Year 4 Pasifika students had more trouble than Māori or Pakeha students, but the differences declined by year 8.