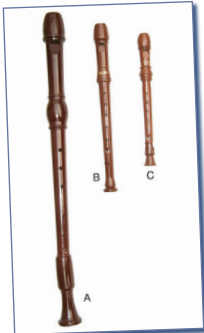


Approach: Station
 Focus: Pitch from musical instruments
 Resources: Picture, 3 straws, photo

Questions / instructions:



Look at the picture of the musical instruments.

Draw a circle around the best answer for each question.

1. Which one makes the **lowest** sounds:
- ✓ A 53 (62) 76 (76)
 - B 5 (3) 2 (1)
 - C 39 (34) 21 (23)
2. Which one makes the **highest** sounds:
- A 38 (34) 20 (22)
 - B 8 (4) 4 (4)
 - ✓ C 51 (60) 75 (74)



Blow over the top of each straw, like the person in the photo.

3. Which straw gives the **lowest** sounds:
- ✓ red 57 (62) 79 (73)
 - blue 33 (29) 16 (22)
 - yellow 7 (6) 4 (4)
4. Which straw gives the **highest** sounds:
- red 31 (31) 14 (20)
 - ✓ blue 47 (56) 66 (61)
 - yellow 19 (11) 19 (17)

5. What causes the sounds to be higher or lower?

- length of instrument determines wavelength of sound waves, therefore frequency, therefore pitch
- clearly associated length with pitch (longer/lower)
- vaguely linked length/size with pitch (but does not give direction)

Look at the picture of the musical instruments again.

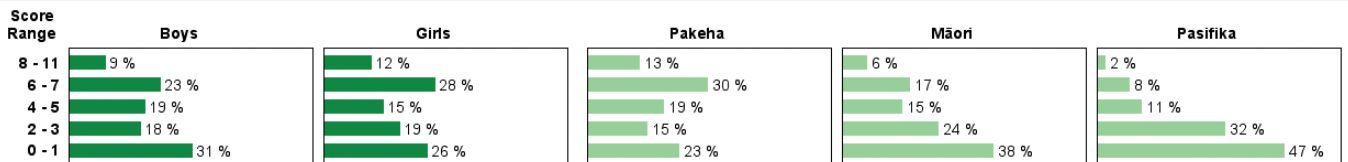
6. Which instrument makes the **lowest** sound:
- ✓ A 53 (64) 79 (74)
 - B 6 (4) 4 (2)
 - C 37 (28) 17 (24)
7. Why do you think this instrument makes the lowest sound?

- length of instrument determines wavelength of sound waves, therefore frequency, therefore pitch
- clearly associated length with pitch (longer/lower)
- vaguely linked length/size with pitch (but does not give direction)

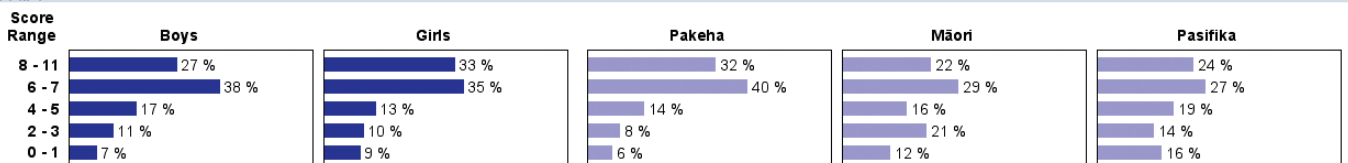
Total score:	8-11	10 (12)	29 (27)
	6-7	25 (41)	37 (34)
	4-5	18 (8)	15 (16)
	2-3	18 (14)	11 (12)
	0-1	29 (25)	8 (11)

Subgroup Analyses:

Year 4



Year 8



Commentary:

This task showed strong increases in performance from year 4 to year 8. The 2003 and 2007 results were similar.