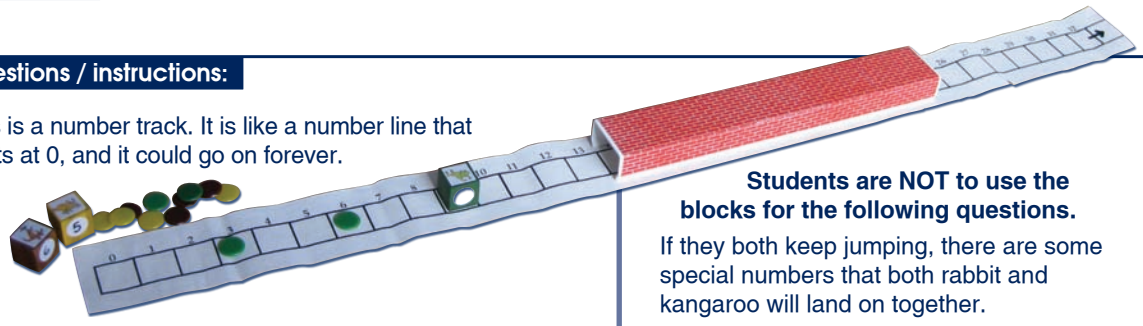
Trend Task: Jumpers

Approach:	One to one
Year:	4 & 8
Focus:	Number knowledge; patterns/sequences
Resources:	Number line, recording book, frog, rabbit and kangaroo blocks, plastic coloured markers, tunnel

Questions / instructions:



This is a number track. It is like a number line that starts at 0, and it could go on forever.

Set up number track and show animals.

This frog is a three-jumper. Starting at 0 it can jump three numbers at a time. It can make one jump and land on this number **(put on 3)** or two jumps and land on 6 **(place marker on 3 and place frog on 6)** or three jumps to 9 **(place marker on 6 and place frog on 9)**.

		Linked to 1997 % response 2009 ('97) year 4	year 8
1. What is the next number the jumping frog would land on? Put a marker on the 9 then put the frog where you think it would land.	12	95 (94)	99 (100)

If student does not put the frog on 12, assist them with a correction explaining why it would be 12. Place the tunnel to cover the numbers 14 to 24.

Now I've put a tunnel over part of the number track.

2. What is the next number the frog would land on – in the tunnel?	15	89 (88)	98 (96)
3. What is the first number it would land on when it came out of the tunnel?	27	43 (31)	76 (66)
4. Altogether, how many jumps from zero would the frog have made before it landed there?	9	22 (17)	60 (50)

Clear the number line to start again.

This rabbit is a 5 jumper, and the kangaroo is a 6 jumper.

Jump rabbit from 0 to 5 – place marker, then jump it onto 10 and leave it there. Jump kangaroo from 0 to 6 – place marker, then jump it onto 12 and leave it there.

Students are NOT to use the blocks for the following questions.

If they both keep jumping, there are some special numbers that both rabbit and kangaroo will land on together.

		Linked to 1997 % response 2009 ('97) year 4	year 8
5. What is the **first** number that they would land on together?	30	31 (21)	80 (76)
6. How many jumps will rabbit have made to reach **(say the number given by student)**, starting from zero? correct number of jumps *(e.g. 6 jumps to reach 30)*		36 (21)	76 (71)
7. How many jumps will kangaroo have made to reach **(say the number given by student)**, starting from zero? correct number of jumps *(e.g. 5 jumps to reach 30)*		34 (20)	73 (70)

If they both keep on jumping, there is another number that both the rabbit and the kangaroo will land on that is the same number.

8. What number do you think it will be?	60	21 (12)	71 (66)
9. How did you work that out?	not marked	• (•)	• (•)

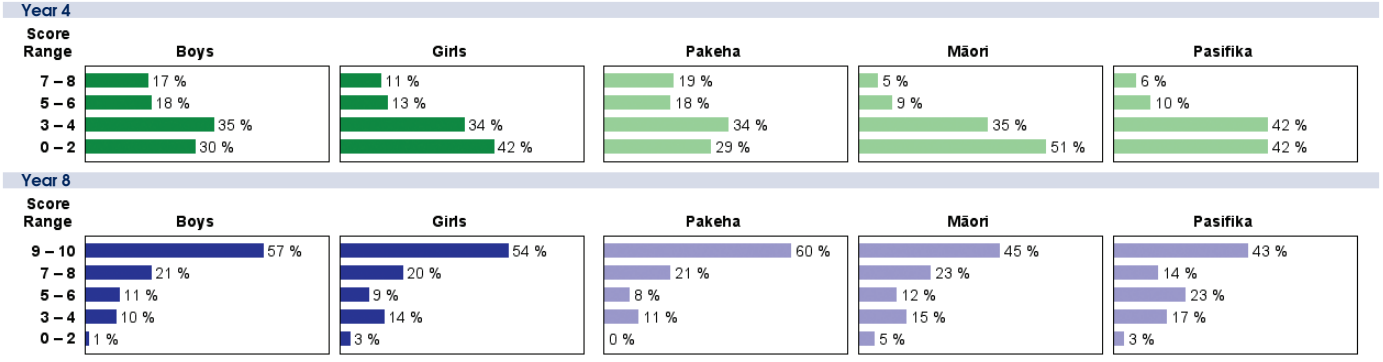
YEAR 8 ONLY:

Put all three animals on 30. Place the tunnel to cover the numbers 14 to 24.

If each animal started at 30 and made three jumps backward, only one animal would get right through the tunnel.

10. Work out which animal that would be and tell me.	kangaroo		89 (90)
11. What number would that animal land on?	12		74 (70)
Total Score:	9–10	• (•)	55 (43)
	7–8	14 (10)	21 (27)
	5–6	15 (8)	10 (16)
	3–4	35 (28)	12 (12)
	0–2	36 (54)	2 (2)

Subgroup Analyses:



Commentary:

This task was previously used in the 1997 assessments. The results show moderate improvements over the 12-year period both at the top and bottom for year 4 students and at the top for year 8 students. Year 4 boys scored significantly higher than year 4 girls.