Trend Task: Jelly

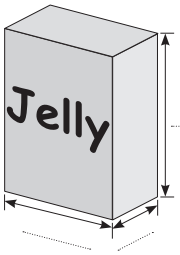
NEMP Access Task

Approach:	Station
Focus:	Measuring and calculating lengths and volume
Resources:	Jelly packet, ruler, calculator, answer booklet

Year: 4 & 8

Questions / instructions:

1. Measure the length, height and width of the **real** jelly packet. Write your measurements on the **picture** of the jelly packet.

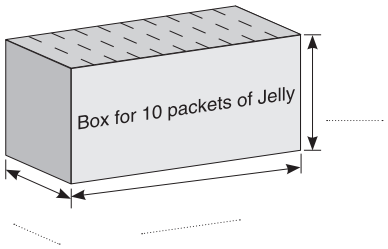


		% response 2009 ('05) year 4	year 8
Height:	86 – 90 mm	18 (17)	27 (19)
	< 86 mm	61 (63)	59 (72)
	> 90 mm	6 (9)	5 (4)
	appropriate units given	60 (67)	82 (87)
Width:	28 – 32 mm	43 (53)	76 (82)
	< 28 mm	28 (19)	10 (9)
	> 32 mm	15 (14)	4 (4)
	appropriate units given	62 (66)	82 (86)
Length:	74 – 78 mm	27 (32)	67 (78)
	< 74 mm	40 (37)	14 (12)
	> 78 mm	18 (18)	8 (5)
	appropriate units given	60 (65)	83 (86)

YEAR 8 ONLY:

2. Work out the volume of the jelly packet. You may use a calculator. Remember to write the unit of measurement.

	% response 2009 ('05) year 4	year 8
correct given measurements		27 (31)
appropriate units given		18 (26)



3. This box holds 10 of these packets of jelly. Write the measurements on the box to show how long, high and wide it would be.

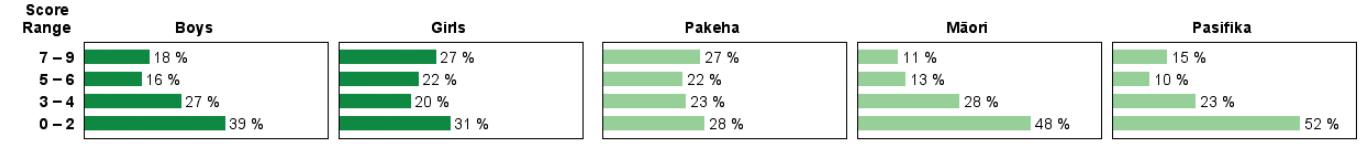
	% response 2009 ('05) year 4	year 8
Height and width:		
same as height/length measurements for one jelly packet		32 (38)
appropriate units given		59 (64)
Length: ten times width given for jelly packet		37 (45)
appropriate units given		62 (66)

4. Work out the volume of this big box. You may use a calculator. Remember to write the unit of measurement.

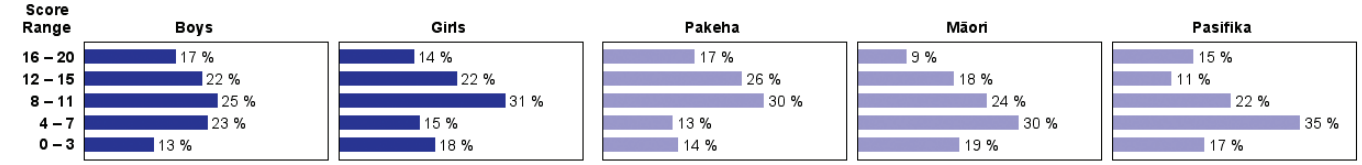
		% response 2009 ('05) year 4	year 8
correct given measurements *(or ten times volume listed for first box)*			27 (28)
Y4 Total Score:	7–9	22 (24)	
	5–6	19 (24)	
	3–4	24 (24)	
	0–2	35 (28)	
Y8 Total Score:	16–20		15 (16)
	12–15		23 (29)
	8–11		28 (28)
	4–7		21 (17)
	0–3		13 (10)

Subgroup Analyses:

Year 4



Year 8



Commentary:

Many students measured to an adjacent cm or half cm measurement, often resulting in choices of 85mm or 8.5cm for height. At both year levels, students scored slightly lower in 2009 than in 2005. Only about one quarter of year 8 students correctly calculated volumes using a calculator. Year 4 girls scored significantly higher than boys – the only task for which this was true.