

### PAT stanine report to KNS Board of Trustees May 2019

The PAT (Progress Achievement Test) is the only nationally normed test at primary schools in NZ. The nationally-averaged results are presented as a bell curve based on stanines (percentiles - a percentage of 10). This enables us to understand if our children are 'above or below' the line.

PAT are tests done annually at the beginning of each year, and since 2018, at the end of the year. Generally, they are best described as aptitude tests and the results give information about a student's ability to understand the question and make meaning from what is asked. Good teaching is required to ensure the understanding of the content in the test and for students to have the confidence to complete the test. Both the reading comprehension and the maths tests are based on the NZ curriculum and they measure the students ability to both read and understand the question, and then select the best answer from the four provided. Over time these tests do give students a chance to grow their capacity in 'test taking'.

By doing the test again in term 4 again we are able to show progress made in the 6-7 months of teaching and learning of the year but the children will be graded against the following years stanine. This shows accelerated progress. We are able to show cohort achievement over an 18 month period by excluding those students who arrived or left Kelburn in the time period.

Our graphs show where each year group sits in relation to that bell curve. This is particularly useful in getting an understanding of Kelburn student achievement in relation to their peers nationally. Generally, for a school such as Kelburn, which is a high achieving school, it is unusual for results to show significant change over time unless the stanine achievement is low in the first instance and the student accelerates their rate of progress.

For the year 4 children the test process can be intimidating - while most children are Ok with it, for some they can easily get lost in the taking of the test. Cohort results can change over time, most commonly because of children coming in and/or leaving. Generally for Kelburn the year 5 information shows that there is strong achievement from the start of the process, reflecting good teaching in the early years.

There are two layers of analysis. This general review which gives an overall schoolwide picture, and a deeper analysis of outlying student groups - those at or below stanine 3 and those at stanine 8-9, and these children may require additional support for processing and making sense of information, and for those children requiring adaptation to the curriculum programme for extension.

We have identified two expected targets for the school for achievement at PAT. By achieving these it indicates to the Board that the children at Kelburn are doing extremely well, if we use the 'bell curve' as the expected base average national standard.

- Target 1 - 90% of children at or above stanine 5
- Target 2 - 45% of children at or above stanine 7

Generally, most groups are at or very close to this target...**Of note half of children in the lower stanines have been at Kelburn for 18 months or less.** Overall the results are extremely good in 2019.

### PAT Maths Graphs 2019

**Target 1 - 90% of children at or above stanine 5**

**Target 2 - 45% of children at or above stanine 7**

2019 results	Number of chn	Mean stanine (NZ norm = 5)	% at and above stanine 5 (NZ norm = 62%)	% at and above stanine 7 (NZ Norm - 23%)
		2019 (2017 in brackets)	2019 (2017 in brackets)	2019 (2017 in brackets)
Year 4	35	6.8 (6.5)	91% (87%)	56% (54%)
Year 5	49	6.0 (6.5)	90% (80%)	33% (53%)
Year 6	30	6.9 (6.4)	90% (75%)	67% (51%)
Year 7	48	6.8 (6.9)	90% (92%)	61% (66%)
Year 8	29	7.1 (6.1)	90% (86%)	66% (44%)

#### Maths analysis

##### Target 1 - Maths - 90% of children at or above stanine 5

A very strong cohort performance and achieved in all levels. Having the mean score average sitting at 6.72 shows high levels of achievement overall. Reflecting back to 2017, only one year group had a mean average above 6.6. In fact the mean average for the school has lifted from 6.48 in 2017 to 6.72 in 2019. This reflects progress and is a very good result. 57% of year 5 group achievement in Maths congregates at stanine 5-6 (28/49 chn) which is lower than other cohorts.

Three cohorts can be used to show improvement in results from 2017 to 2019 - Y6,Y7,8

- Year 6 2019 (Year 4 in 2017) have improved mean score average from 6.5 to 6.9; percentage at/above stanine 5 improves from 87% to 90%.
- Year 7 (Year 5 in 2017) have improved mean score average from 6.5 to 6.8; percentage at/above stanine 5 improves from 80% to 90%.
- Year 8 (Year 6 in 2017) have improved mean score average from 6.4 to 7.1; percentage at/above stanine 5 improves from 75% to 90%.

##### Target 2 - Maths - 45% of children at or above stanine 7

Except year 5 at 30%, this has been achieved at all other levels; and while the target set at 45% in 2017 was ambitious, student achievement at the top end is strong and significantly above the national average (24%), so high now that we have average around 60% on 4 out of 5 cohorts. This means that 6 out of 10 children in year 4-8 are achieving in the 'well above' average area.

Three cohorts can be used to show improvement in results from in at/above stanine 7 from 2017 to 2019 - Y6, Y7, Y8

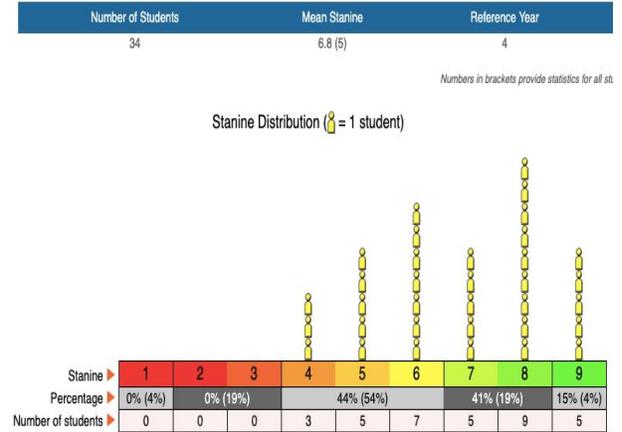
- Year 6 (Year 4 in 2017) have improved percentage growth at/above stanine 7 from 54% to 67%.
- Year 7 (Year 5 in 2017) have improved percentage at/above stanine 7 from 53% to 61%.
- Year 8 (Year 6 in 2017) have improved percentage at/above stanine 7 from 51% to 66%.

#### Notes -

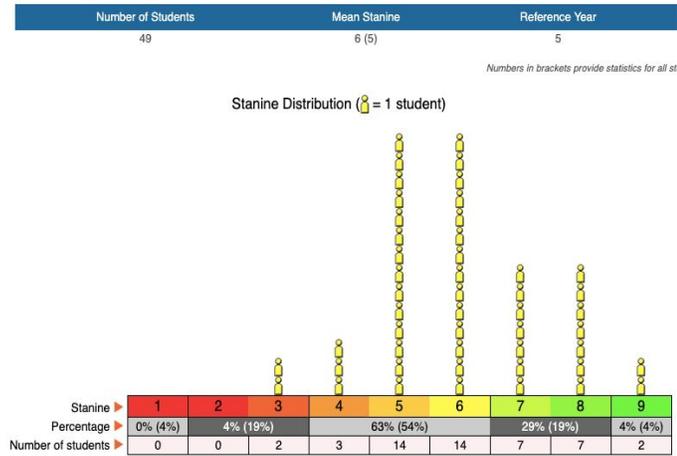
- 57% of year 5 group achievement in Maths congregates at stanine 5-6 (28/49 chn) which is lower than other cohorts.
- 35% of Y8 students at stanine 9 is an exceptional achievement.

# Kelburn Normal School PAT Maths Stanine Graphs 2019

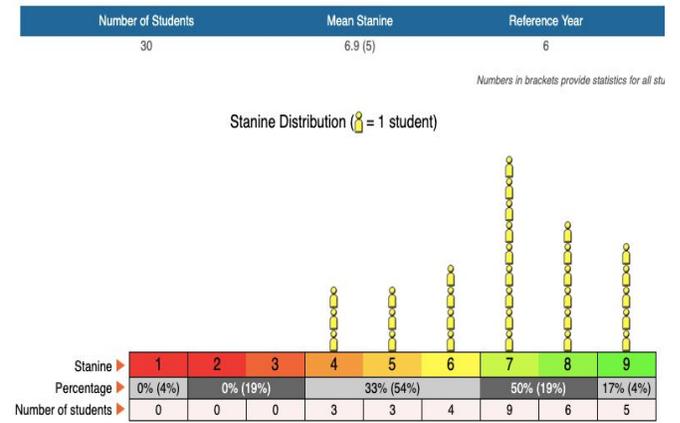
Kelburn Normal School All Year 4 (Reference Group Used: Year 4)



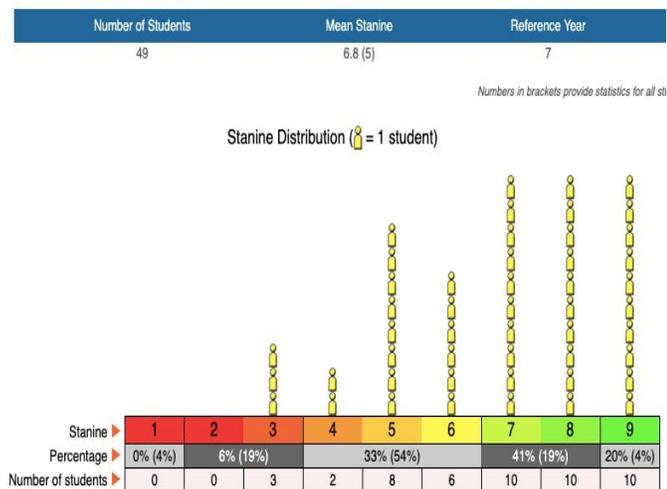
Kelburn Normal School All Year 5 (Reference Group Used: Year 5)



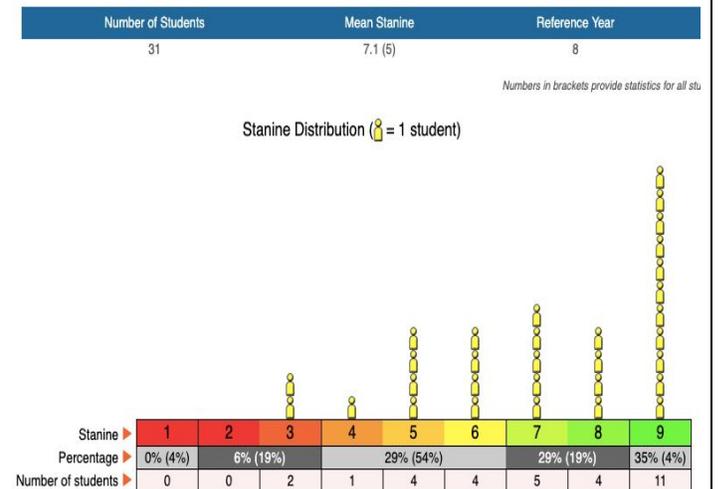
Kelburn Normal School All Year 6 (Reference Group Used: Year 6)



Kelburn Normal School All Year 7 (Reference Group Used: Year 7)



Kelburn Normal School All Year 8 (Reference Group Used: Year 8)



### PAT Reading Comprehension Graphs 2019

**Target 1 - 90% of children at or above stanine 5**

**Target 2 - 45% of children at or above stanine 7**

2019 results	Number of chn	Mean stanine (NZ norm = 5)	% at and above stanine 5 (NZ norm = 62%)	% at and above stanine 7 (NZ Norm - 23%)
		2019 (2017 in brackets)	2019 (2017 in brackets)	2019 (2017 in brackets)
Year 4	35	6.8 (6.4)	91% (78%)	57% (59%)
Year 5	49	7.1 (6.5)	92% (84%)	64% (48%)
Year 6	30	6.9 (5.9)	93% (76%)	57% (42%)
Year 7	48	6.9 (7.0)	83% (88%)	69% (68%)
Year 8	29	6.2 (5.7)	86% (75%)	48% (43%)

#### **Target 1 - Reading Comprehension - 90% of children at or above stanine 5**

This has been achieved in 3 of the 5 levels and this is a strong cohort performance. Having the mean score sitting above 6.8 on 4 out of 5 year groups shows high levels of achievement.

Reflecting back to 2017, only one year group had a mean average above 6.6. In fact the mean average for the school has lifted from 6.30 in 2017 to 6.78 in 2019. When your student achievement is already excellent, to lift mean average results by around 0.50 is a very good result.

Three cohorts can be used to show improvement in results from 2017 to 2019 - Y6,Y7,8

- Year 6 (Year 4 in 2017) have improved mean score average from 6.4 to 6.8; percentage at/above stanine 5 improves from 78% to 91%;
- Year 7 (Year 5 in 2017) have improved mean score average from 6.5 to 7.1; but percentage at/above stanine 5 drops from 88% to 84%; (*variation due to enrolment and departure of 4 children for 2019*)
- Year 8 (Year 6 in 2017) have improved mean score average from 5.9 to 6.2; percentage at/above stanine 5 improves from 75% to 86%;

#### **Target 2 - Reading Comprehension - 45% of children at or above stanine 7**

This has been achieved at all levels and whilst the target set at 45% was ambitious, student achievement at the top end is so high that we have now average above 55% on 4 out of 5 cohorts. The national average of 24%. This means that around 6 out of 10 children in year 4-8 are achieving in the well above average area.

Three cohorts can be used to show improvement in results from 2017 to 2019 - Y6,Y7,8

- Year 6 (Year 4 in 2017) have plateaued percentage at/above stanine 7 from 59% to 57%.
- Year 7 (Year 5 in 2017) have improved percentage at/above stanine 7 from 48% to 69%.
- Year 8 (Year 6 in 2017) have improved percentage at/above stanine 7 from 42% to 48%.

Notes -

- Year 8, despite a solid whole group performance, (20/29 students achieving stanine 5-7 in year 8), is not attaining at the high levels of other year groups.

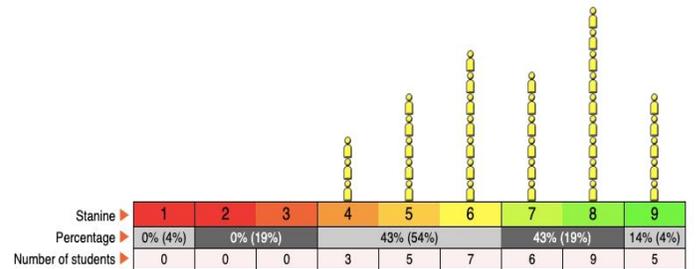
# PAT Reading Comprehension Graphs 2019

Kelburn Normal School All Year 4 (Reference Group Used: Year 4)

Number of Students	Mean Stanine	Reference Year
35	6.8 (5)	4

Numbers in brackets provide statistics for all stu

Stanine Distribution (1 student)



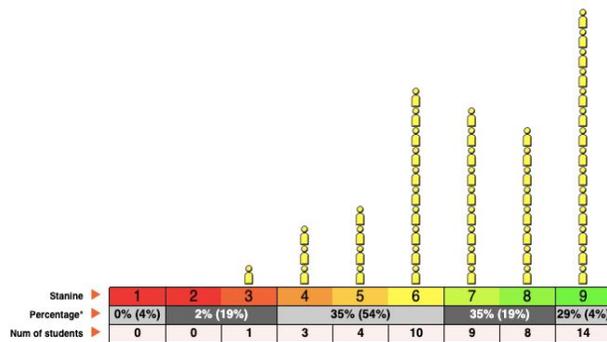
\* Percentages may not add up to 100 percent due to rounding.

Kelburn Normal School All Year 5 (Reference Group Used: Year 5)

Number of students	Mean stanine	Reference year	Time of year
49	7.1 (5)	5	Term 1

Numbers in brackets provide statistics for all students in the national reference group.

Stanine Distribution (1 student)

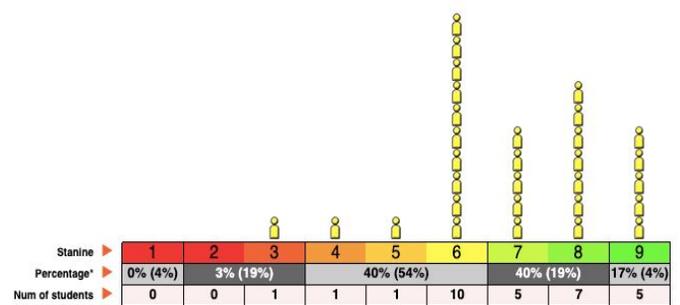


Kelburn Normal School All Year 6 (Reference Group Used: Year 6)

Number of students	Mean stanine	Reference year	Time of year
30	6.9 (5)	6	Term 1

Numbers in brackets provide statistics for all students in the national reference group.

Stanine Distribution (1 student)

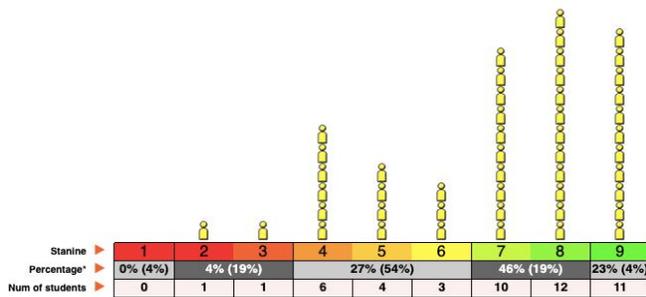


Kelburn Normal School All Year 7 (Reference Group Used: Year 7)

Number of students	Mean stanine	Reference year	Time of year
48	6.9 (5)	7	Term 1

Numbers in brackets provide statistics for all students in the national reference group.

Stanine Distribution (1 student)



Kelburn Normal School All Year 8 (Reference Group Used: Year 8)

Number of students	Mean stanine	Reference year	Time of year
29	6.2 (5)	8	Term 1

Numbers in brackets provide statistics for all students in the national reference group.

Stanine Distribution (1 student)

