

Titirangi

School



*Kia Kōwhiri*

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**Maths Achievement  
Report 2009**

## TPS 2009 Maths Data

This report summarizes maths achievement data for Titirangi Primary School in Term 1 of 2009 based on Maths PAT and GloSS tests.

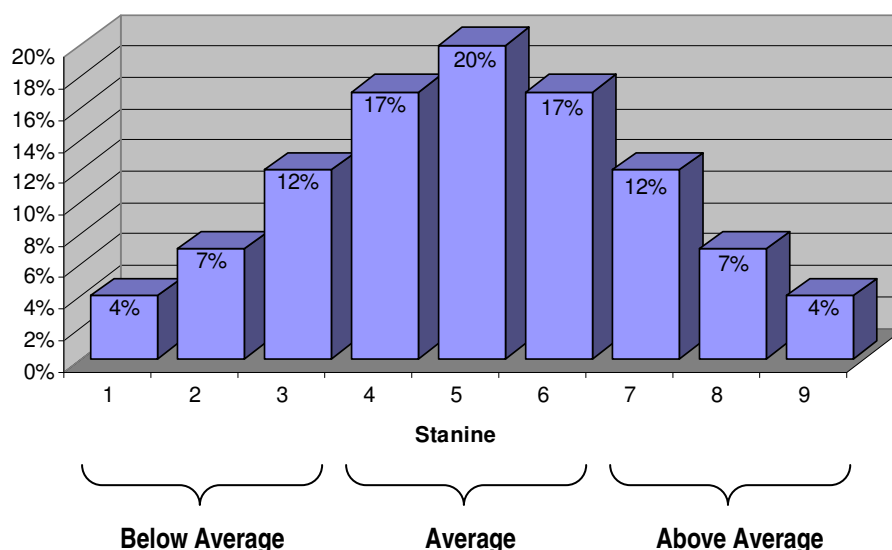
### Which tests are reported against?

**PATs:** The first set of data shows attainment in the standardized, multiple choice *Maths Progressive Achievement Tests* from Term 1, 2009. Results are reported by stanine (1-9) for Years 4-6. PAT Maths covers a range of mathematical contexts, including Number Knowledge, Number Strategies, Geometry and Statistics.

### What is a PAT stanine?

A stanine indicates a student's score in a standardized test, on a 1-9 scale. If a student makes an expected year's progress, then their stanine will remain the same in the following year. Eg: A student scoring at Stanine 5 in Year 4, and again in Year 5 would have made one year's progress, as measured by this test. The graph below shows the expected (*normed*) distribution of stanine scores in NZ schools.

**Graph Showing National Student PAT Achievement Distribution By Stanine**



**How are the PAT results used?** We compare the data against national norms and expectations for each year level. For PATs and GloSS, there is, at present, no data which enables us to compare against similar schools to ours (i.e.: urban, high decile), and so we have set our own targets.

Analysis and goal-setting takes place at three levels;

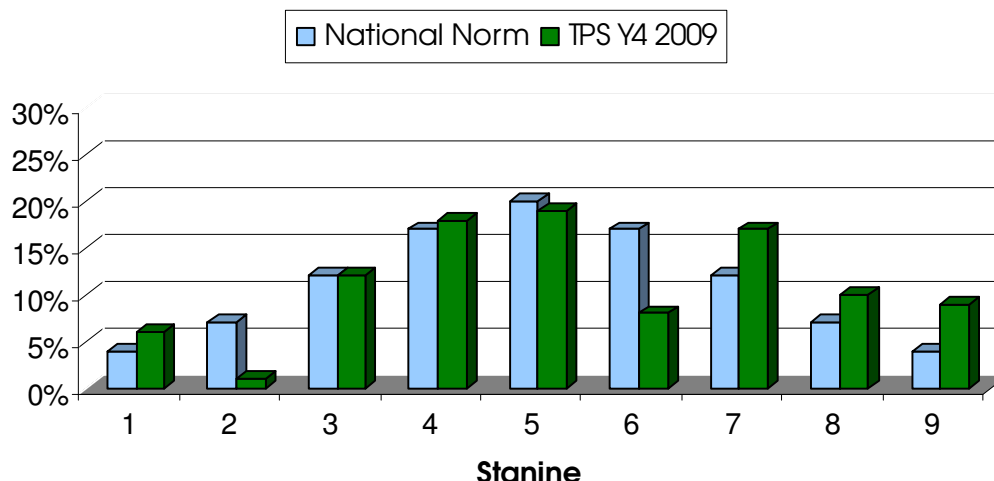
- Whole school – to identify overall areas of strength and areas for development in this subject at TPS.
- Year group – to identify areas of strength and areas of development that may be year-group specific.
- Individual students – to inform teachers, enabling them to identify the specific learning needs of groups and individuals within the class.

The analyses help us to identify students and groups of students who may require support, extension or further challenge. Teachers have access to information relating to individual student attainment, and tailor their learning programmes to reflect the individual learning needs that are identified for the students in their class.

**How is the data reported?** The data is reported in detail to teachers and the BOT. Your child's individual results are also included in the Term 2 report, which forms the basis for the parent conferences.

## TPS 2009 PAT Maths Data: Years 4-6

### Year 4 Maths PAT Results Term 1 2009



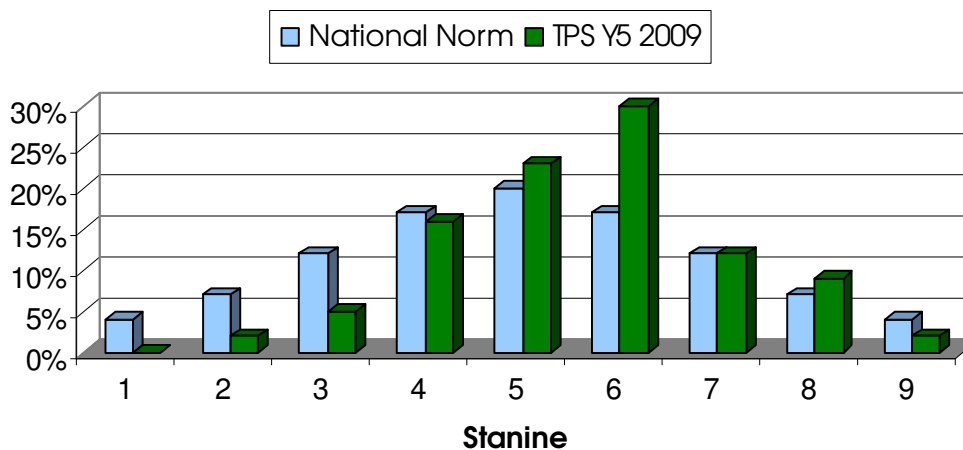
**What do these results tell us about student achievement in PAT tests at the beginning of Year 4 (Term 1)?**

- There are a higher proportion of students achieving at stanines 7-9 in comparison with national norms.
- In Year 4, the 19% of students scoring at stanines 1-3 have been identified as a target group.
- There are also target groups of students in stanines 3, 4 and 5. The goal for these is to shift them up at least a full stanine.

What will we be aiming to achieve in PAT tests?			
Stanine	National Norm	TPS Goal	TPS Y4 Term 1 2009
<b>Stanine 1-3</b>	<b>23%</b>		<b>19%</b>
<b>Stanine 4-6</b>	<b>54%</b>	<b>50%</b>	<b>45%</b>
<b>Stanine 7-9</b>	<b>23%</b>	<b>50%</b>	<b>36%</b>

Figures may not add up to 100% due to rounding

### Year 5 Maths PAT Results Term 1 2009

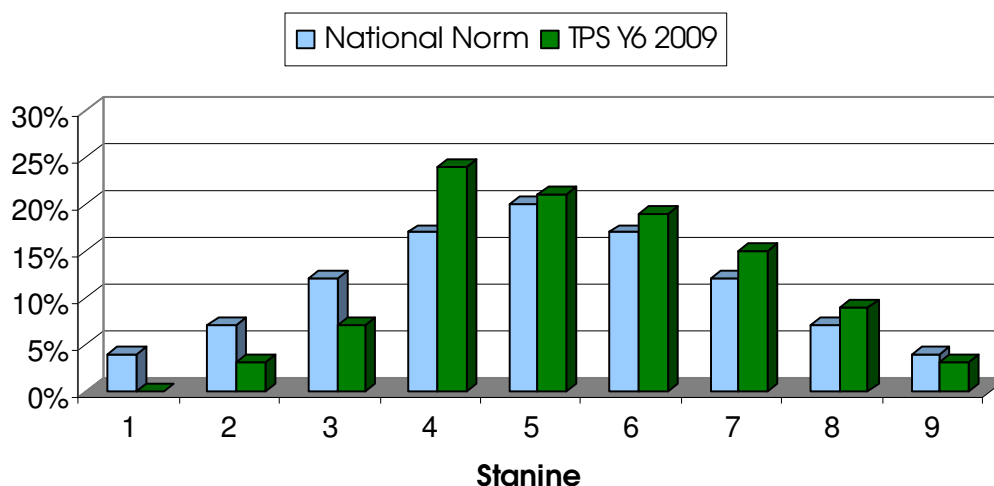


**What do these results tell us about student achievement in PAT tests at the beginning of Year 5 (Term 1)?**

- There are a higher proportion of students achieving at stanine 6, in comparison with national norms.
- There are a lower proportion of students scoring at stanines 2-4 than the national norm, with a higher proportion achieving stanines 5 and 6.
- In Year 5, the 7% of students scoring below stanine 4 have been identified as a target group.
- Target groups of students have been identified in stanines 5 – 7 (most notably in stanine 6). The goal for these students this year is to shift them up at least a full stanine level.

What will we be aiming to achieve in PAT tests?			
Stanine	National Norm	TPS Goal	TPS Y5 Term 1 2009
<b>Stanine 1-3</b>	<b>23%</b>		<b>7%</b>
<b>Stanine 4-6</b>	<b>54%</b>	<b>50%</b>	<b>69%</b>
<b>Stanine 7-9</b>	<b>23%</b>	<b>50%</b>	<b>23%</b>

### Year 6 Maths PAT Results Term 1 2009



#### What do these results tell us about student achievement in PAT tests at the beginning of Year 6 (Term 1)?

- There are a lower proportion of students scoring at stanines 2-3, with a higher proportion achieving stanines 5 - 8, in comparison with national norms.
- The 10% of students scoring below stanine 4 have been identified as a target group.
- There are also target groups of students achieving in stanines 4-8 (most notably in stanine 4). The goal for this group of students is to shift them up at least a full stanine level.
- We are aiming to increase achievement at stanine 9.

Note: Year 6 progress will be measured by PAT results in Year 7.

What will we be aiming to achieve in PAT tests?			
Stanine	National Norm	TPS Goal	TPS Y6 Term 1 2009
<b>Stanine 1-3</b>	<b>23%</b>		<b>10%</b>
<b>Stanine 4-6</b>	<b>54%</b>	<b>50%</b>	<b>64%</b>
<b>Stanine 7-9</b>	<b>23%</b>	<b>50%</b>	<b>27%</b>

## TPS 2009 Numeracy Stage (GloSS) Data: Years 2-6

**About the GloSS Assessment:** This set of data relates to the Numeracy Project Stages, based on the results of the GloSS (Global Strategy Stage) assessment from Term 1, 2009. This is an individual test of mathematical strategies (for addition, subtraction, multiplication, and division), in which the teacher interviews each student, observing and recording their approach to number-based problem-solving. Students progress through the stages (from 1 to 8), reflecting their overall ability to use and apply an increasingly sophisticated range of calculation strategies when solving problems.

We have set goals for Year 2, 5 and 6.

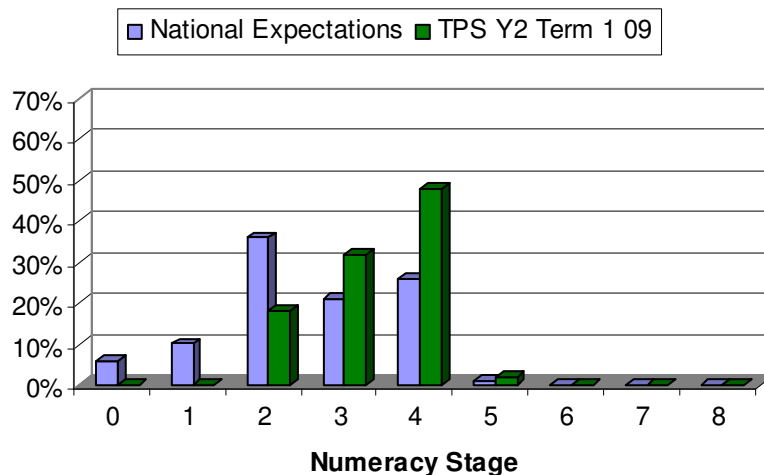
### What do the Numeracy Stages mean?

*(The year groups shown in brackets give a rough indication of the national expectations at the end of each year)*

- **Stage 0-3 (Y1/Y2):** - children can solve problems by counting from 1, either using physical materials, or in their head.
- **Stage 4 (Y2/Y3):** - children can solve problems by counting in 1's/skip counting/starting from numbers other than 1.
- **Stage 5 (Y4/Y5):** - children can solve simple problems by splitting up and adding together the numbers in their head.
- **Stage 6 (Y5/6):** - children use a range of different methods to solve more challenging addition & subtraction problems in their head.
- **Stage 7 (Y7/8):** - children use a range of different methods to solve multiplication and division problems in their head.
- **Stage 8 (Y8/9):** - children can solve complicated problems involving fractions, decimals and percentages using a combination of methods.

**NB:** As students move into Stages 5 and 6, they are expected to spend longer (around 2 years) at each stage, as the stages become more complex.

### TPS Y2 GLoSS Results Term 1 2009



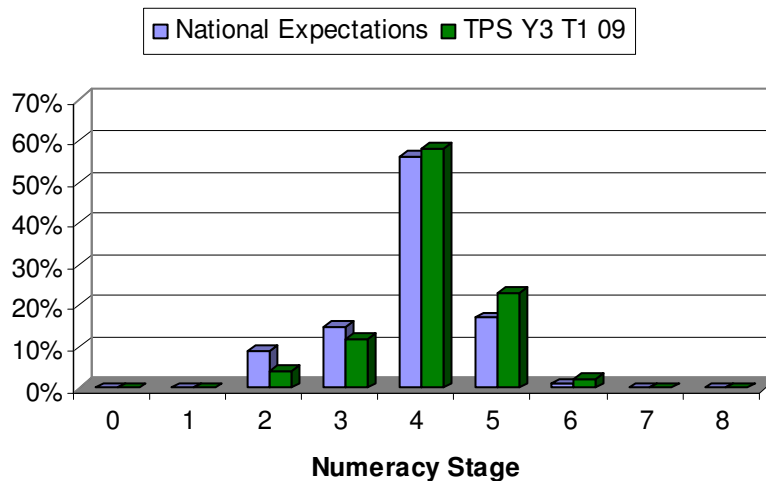
#### What do these results tell us about student achievement at the beginning of Year 2 (Term 1)?

- In Year 2, no students are achieving below Stage 2, in contrast to national expectations, with a higher proportion achieving Stages 3 and 4.

#### Where do we want these students to be by the end of the year?

- We will be working towards a goal of:
  - 85% or more reaching Stage 4 or above.

### TPS Y3 GLoSS Results Term 1 2009



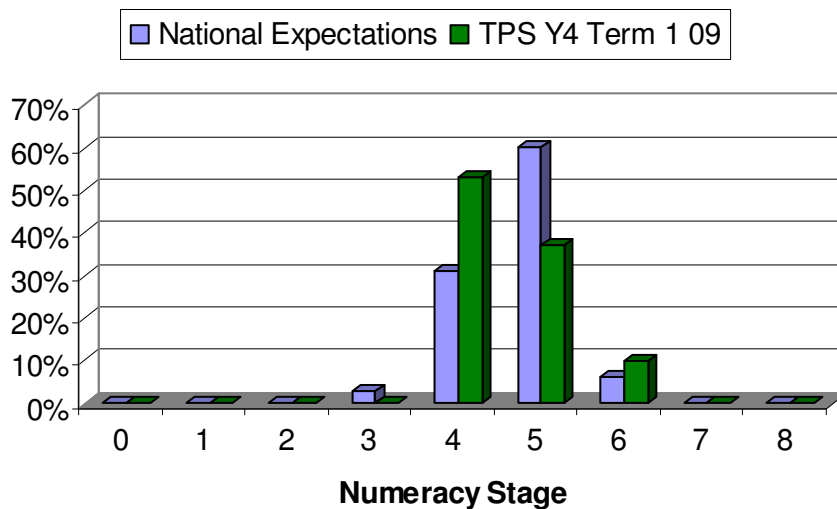
**What do these results tell us about student achievement at the beginning of Year 3 (Term 1)?**

- There are fewer students at Stage 3 or below in comparison to national expectations, with a higher proportion of students achieving at or above Stage 4, (most notably at Stage 5).

**Where do we want these students to be by the end of the year?**

- We will be working towards a goal of:
  - 80% or more reaching Stage 5 or above.

### TPS Y4 GLoSS Results Term 1 2009



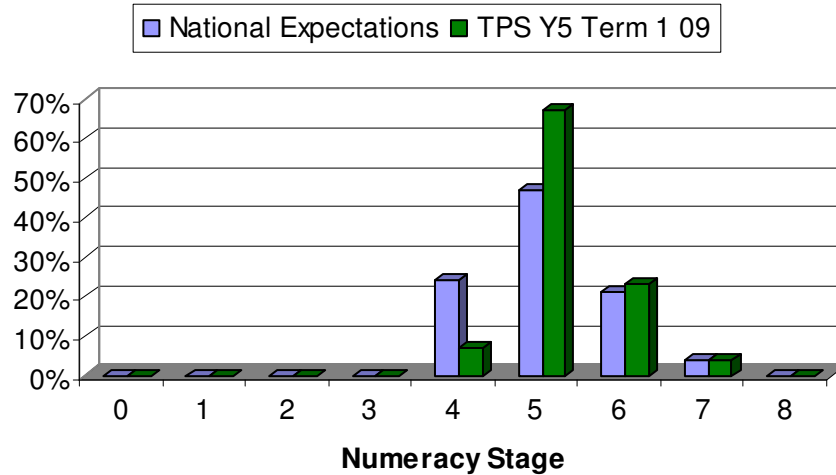
**What do these results tell us about student achievement at the beginning of Year 4 (Term 1)?**

- No students are achieving below Stage 4.
- In Year 4, there are a significant number of students at Stage 4 who are a target group to be shifted to Stage 5.
- There are a slightly higher proportion of students achieving Stage 6, in comparison to national expectations.

**Where do we want these students to be by the end of the year?**

- We will be working towards a goal of
  - 100% reaching stage 5 or above.

### TPS Y5 GLoSS Results Term 1 2009



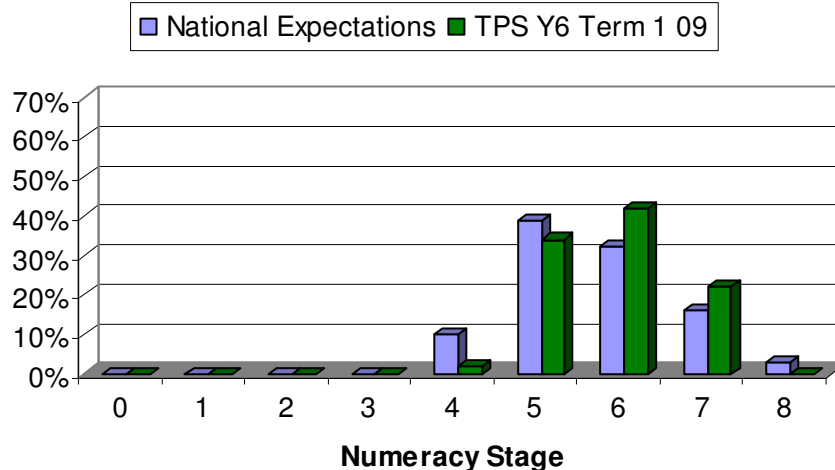
#### What do these results tell us about student achievement at the beginning of Year 5 (Term 1)?

- In Year 5, there are fewer students achieving below Stage 5, in comparison with national expectations, with a significantly higher proportion of students performing at Stages 5 -6, (most notably in Stage 5).
- In order to make progress towards (purposely) challenging targets, we have identified students achieving at Stages 5 and 6 as a target group.

#### Where do we want these students to be by the end of the year?

- We will be working towards a goal of:
  - At least 60% or more of students achieving Stage 6.
  - 20% or more of students reaching Stage 7 or above.

### TPS Y6 GLoSS Results Term 1 2009



#### What do these results tell us about student achievement at the beginning of Year 6 (Term 1)?

- In Year 6, a higher proportion of students are achieving at Stage 5 or above, with a significantly higher number achieving at Stages 6 and 7, in comparison with national norms.
- Stage 8 represents a highly sophisticated level of mathematical understanding (around Y8 expectation), but we aim to extend more capable Stage 7 students into Stage 8.

#### Where do we want these students to be by the end of the year?

- We will be working towards a goal of:
  - 50% or more of students achieving Stage 7 or above.