

PATs

PROGRESSIVE ACHIEVEMENT TESTS

Progress reporting using PATs



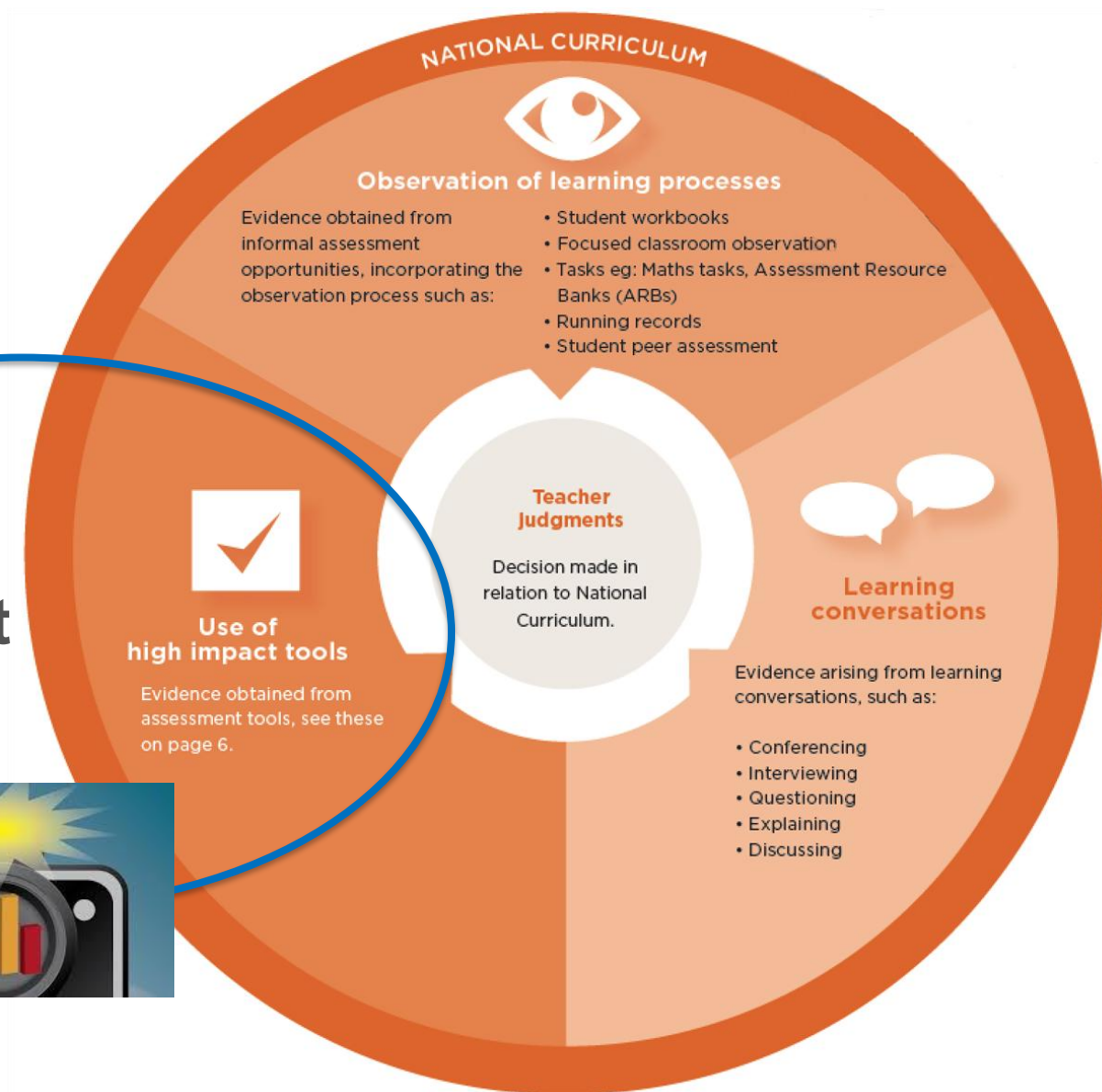
Kupu whakatai Introduction

*Analyse data in the context of an overarching progress story.
It will help you understand whether teaching and learning programmes
are making a difference for all students, and to understand what
assessment information can do to inform your strategic direction.*

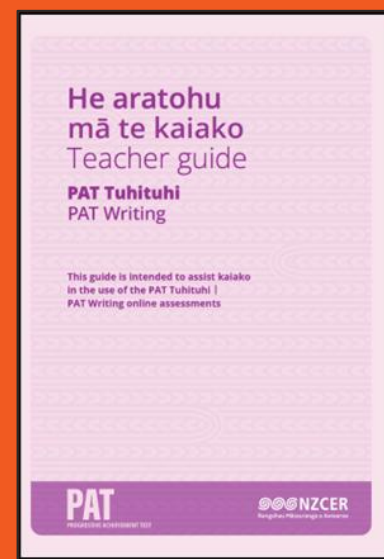
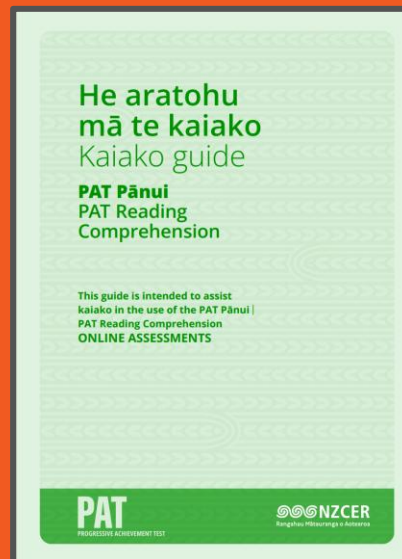
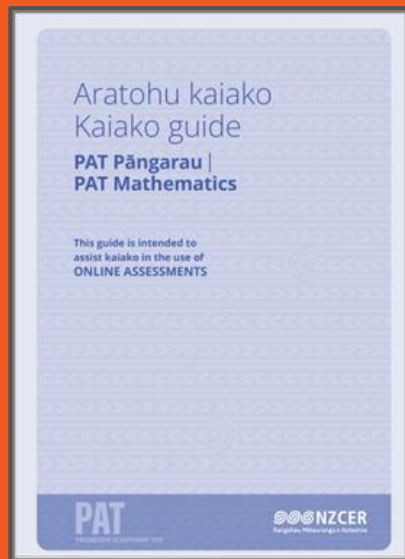
- Place of PATs in the wider assessment picture
- Stanines and scales scores reminder
- Progress and Achievement
 - Aggregated report (calendar year)
 - Aggregated progress report (over multiple years)
 - Progress score report (new)
 - Learner progress reports (all assessments)
 - Whānau reports (reading, writing and maths)



PAT Assessment Tools



Stanines and Scale scores



What is your understanding of stanines
and scale scores?

How are these used and talked about
at your school?

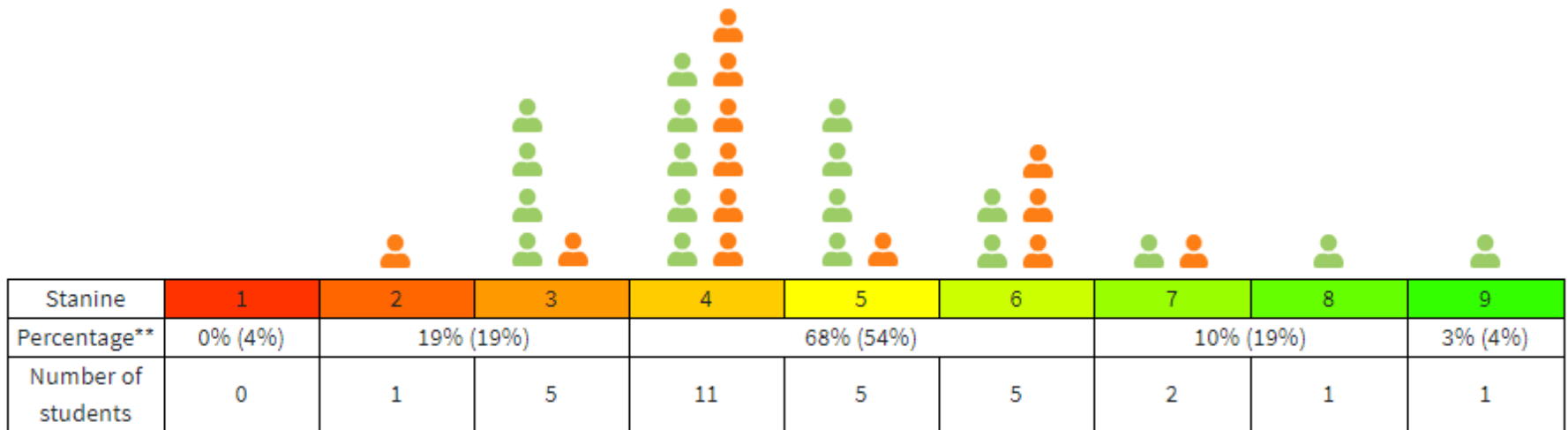


Two views of reporting

Scale scores	Stanines
A scale score places student achievement on a scale that spans year levels and is particularly useful for understanding growth over time. Each assessment has its own PAT scale.	A stanine puts the results from a test into one of nine broad bands that shows how a student's performance compares to a national reference group at their particular year level.
Scale scores support a view of progress and a way to monitor change over time.	It is important to remember that stanines reflect a comparison to a group of students at a particular year level in Term 1.
Scale scores are reported with a margin of measurement error. This reflects that the result is an estimate and a range of achievement rather, not a single fixed point.	A change of two or more stanines is more likely to represent a genuine difference in achievement relative to the national norms.

Stanines

Stanines are used to **compare an individual student's achievement** with the results obtained by a **national reference** sample chosen to represent a certain year level. Stanines divide the distribution of results for a year group, into nine categories (bands). Most students, when compared with their own year level, achieve around stanines four, five, and six. Stanines seven, eight, and nine represent comparatively high achievement for a year group, while stanines one, two, and three indicate comparatively low achievement.



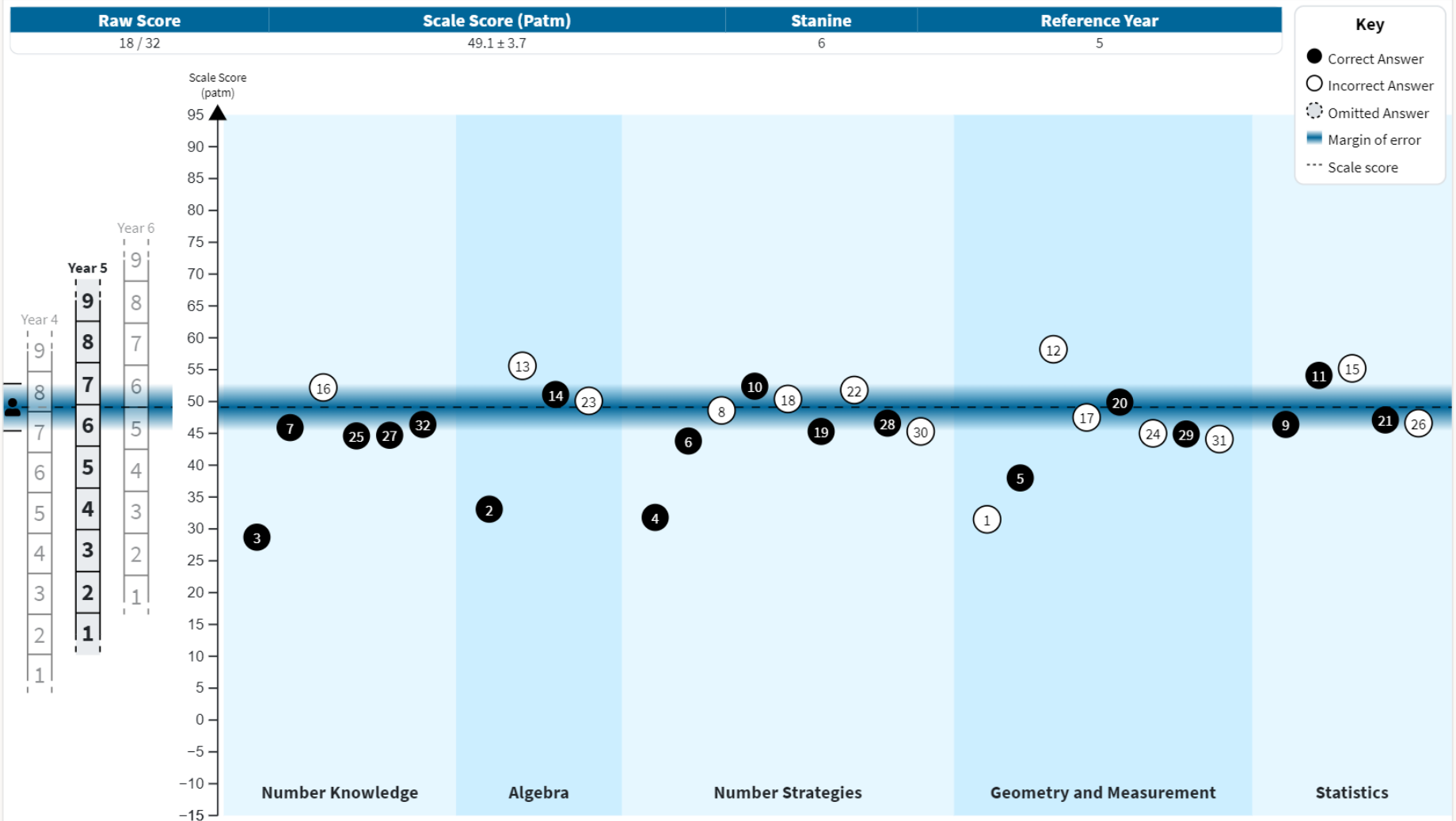
Stanine Distribution ( = 1 boy  = 1 girl)

Scale scores

- The scores for an assessment are based on the number of questions that ākonga have answered correctly. This number is sometimes referred to as the raw score.
- The raw score is converted to a scale score on the relevant measurement scale. There are separate PAT scales for each assessment. (e.g., PATm, PATc)
- Every question has been located on the same scale. This provides a sense of their relative difficulty. A scale score can be interpreted in terms of the kind of questions ākonga are likely to answer successfully.
- This scale allows achievement to be compared and tracked over time regardless of which assessments were administered.

Question level of difficulty

PAT Pāngarau Adaptive Test (Year 5)



Progress over time

Average mean scale score

	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
NEW	25.4	32.5	39.7	45.8	49.1	53.6	57.8	62.4

Average progress

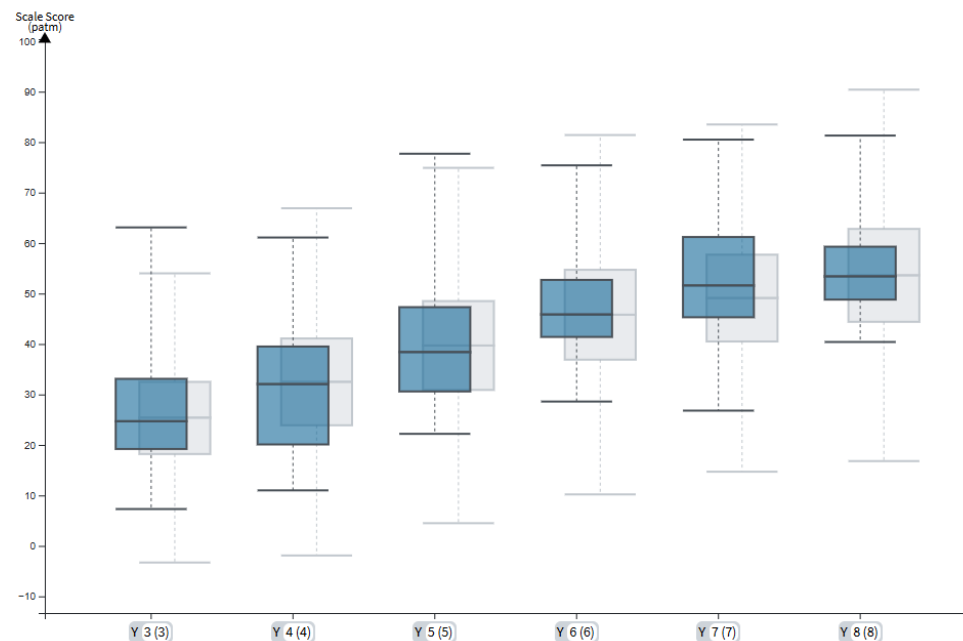
	Year 3-4	Year 4-5	Year 5-6	Year 6-7	Year 7-8	Year 8-9	Year 9-10
NEW	7.1	7.2	6.1	3.3	4.5	4.2	4.6

- average one year scale score progress
- a guide to compare progress for an individual ākonga between multiple assessment time points
- snapshot of progress and achievement that is one piece of the puzzle that you know about your ākonga

Aggregated report (calendar year)

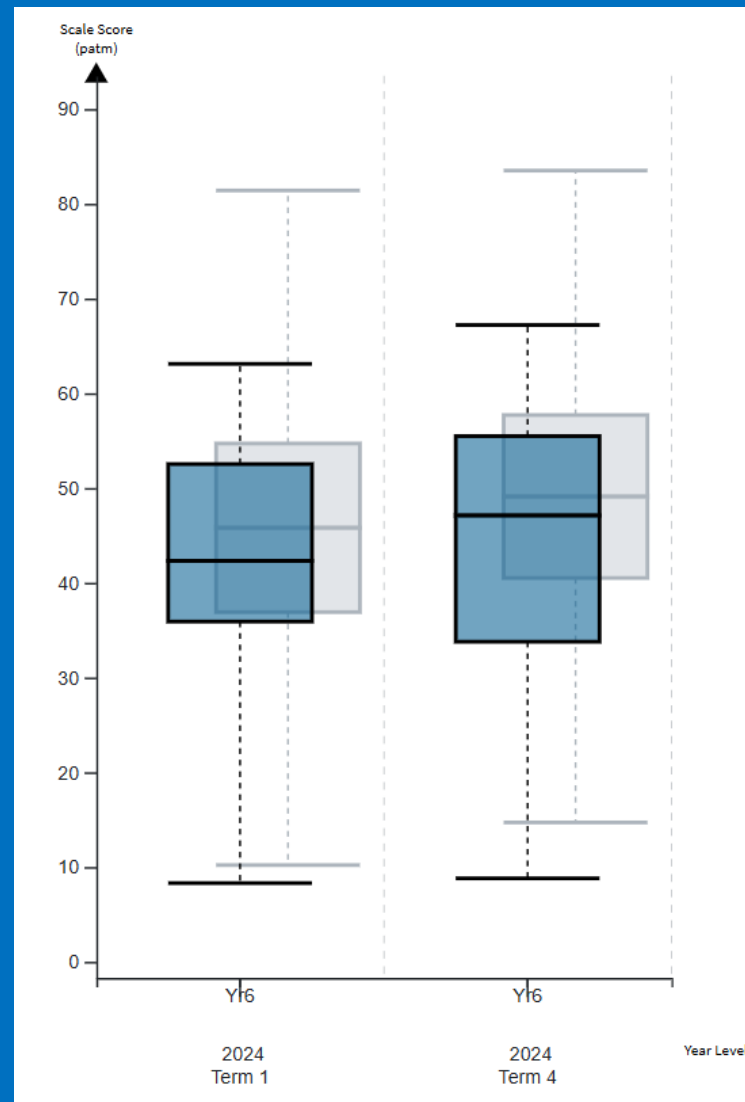
PAT: Mathematics

Year Level (ref year)	Students (Completed)	Mean Scale Score	Standard Deviation	Highest Score	Upper Quartile	Median	Lower Quartile	Lowest Score
Y 3 (3)	47/47	28.6 (25.4)	14.2 (10.6)	63.1 (54.0)	33.1(32.5)	24.7 (25.4)	19.2(18.2)	7.3 (-3.3)
Y 4 (4)	40/40	30.6 (32.5)	11.7 (12.7)	61.1 (66.9)	39.5(41.1)	32.0 (32.5)	20.1(23.9)	11.0 (-1.9)
Y 5 (5)	39/39	39.7 (39.7)	12.0 (13.1)	77.7 (74.9)	47.3(48.5)	38.4 (39.7)	30.6(30.9)	22.2 (4.5)
Y 6 (6)	32/32	47.7 (45.8)	10.2 (13.2)	75.4 (81.4)	52.7(54.7)	45.9 (45.8)	41.4(36.9)	28.6 (10.2)
Y 7 (7)	37/37	52.9 (49.1)	12.3 (12.7)	80.5 (83.5)	61.2(57.7)	51.6 (49.1)	45.3(40.5)	26.8 (14.7)
Y 8 (8)	36/36	54.5 (53.6)	9.3 (13.7)	81.3 (90.4)	59.3(62.8)	53.4 (53.6)	48.8(44.4)	40.4 (16.8)



Year Level

Progress over time report (over multiple years)



Year	Term	Year Level	Students (Completed)	Mean Scale Score	Standard Deviation	Highest Score	Upper Quartile	Median	Lower Quartile	Lowest Score
2024	Term 1	6	30/30	40.9 (45.8)	14.7 (13.2)	63.1 (81.4)	52.5(54.7)	42.3 (45.8)	35.9(36.9)	8.3 (10.2)
2024	Term 4	6	30/30	44.1 (49.1)	15.3 (12.7)	67.2 (83.5)	55.5(57.7)	47.1 (49.1)	33.8(40.5)	8.8 (14.7)

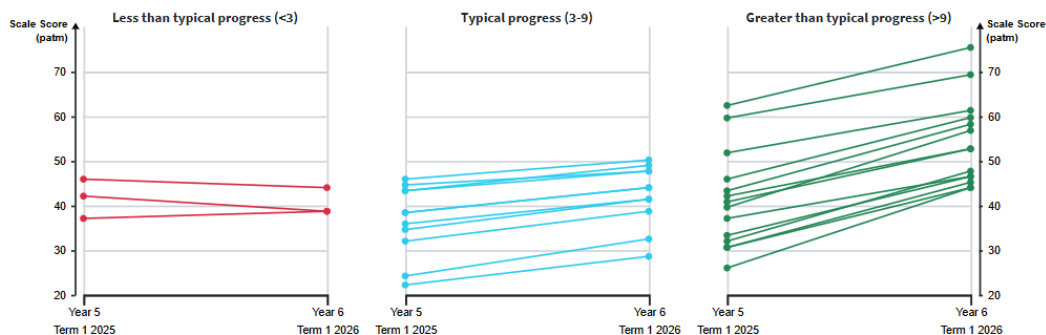
Progress score Report (new)

Distribution of Progress Scores
Year 5 - Term 1 2025 to Year 6 - Term 1 2026

Scale Score
(patm)

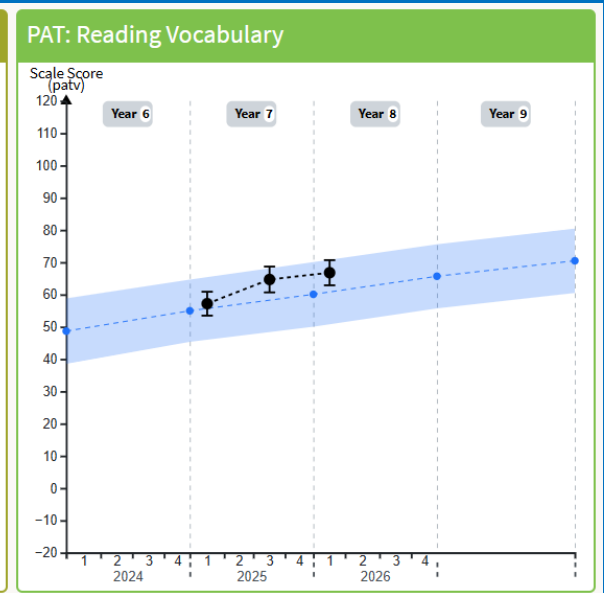
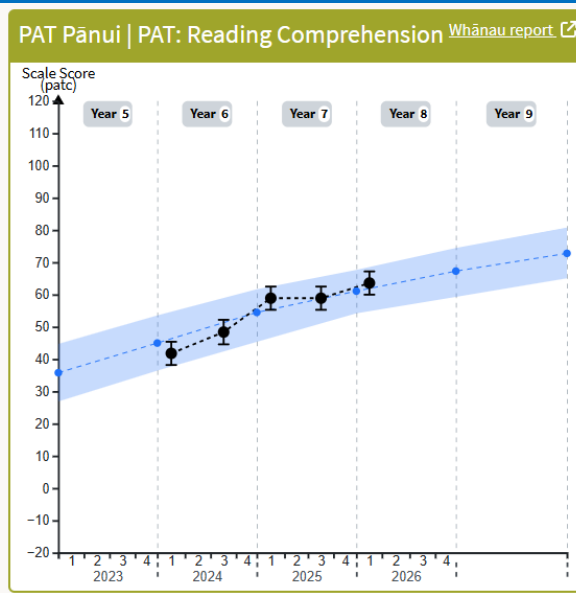
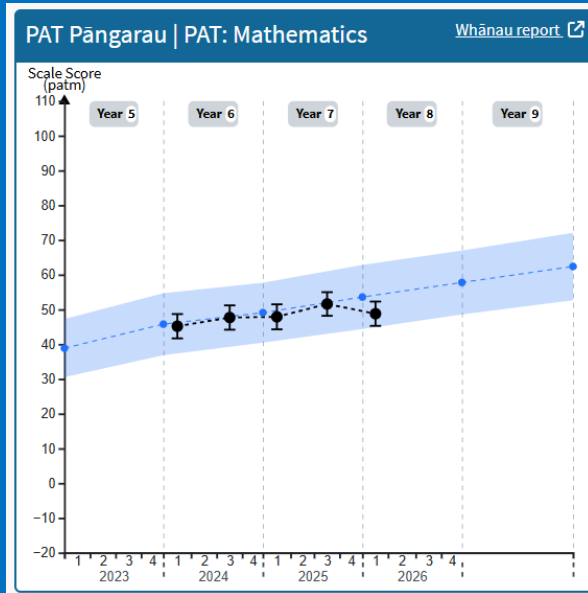
Statistic	Progress (patm)
Number of students	28
Mean	8.7 (6.1)
Standard Deviation	5.5
Maximum	18.0
Upper Quartile (Q3)	13.3
Median (Q2)	8.8
Lower Quartile (Q1)	5.6
Minimum	-3.4

Student Trajectories by Progress Category



Category	Number of students	Percentage of students
Less than typical progress (<3)	3	11%
Typical progress (3-9)	11	39%
Greater than typical progress (>9)	14	50%

Learner progress report



Whānau reports

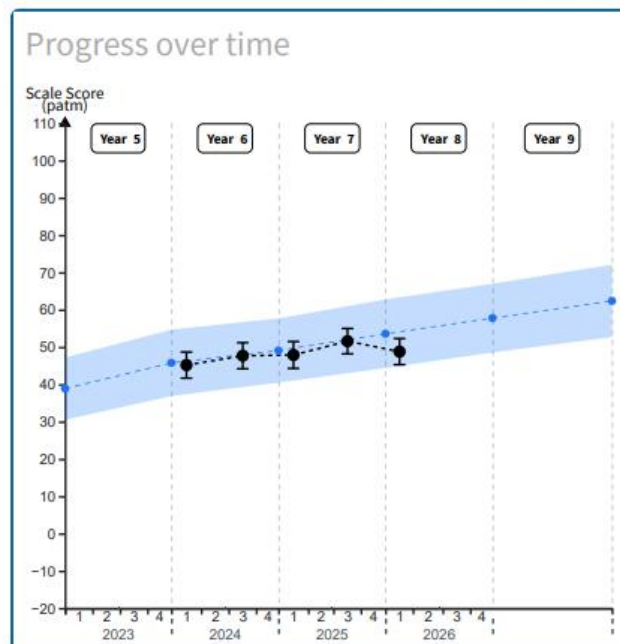
PAT Pāngarau | PAT: Mathematics Whānau report

Name: Armani Harford

School: Postgate School

Year level: 8

Date: Term 1 2026



Latest PAT Assessment

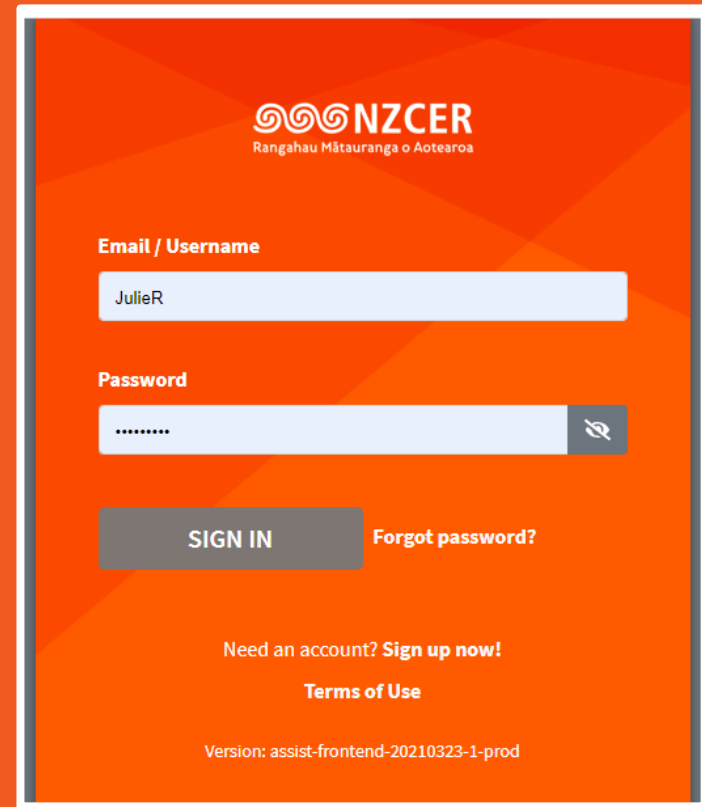
Armani's latest PAT Pāngarau | PAT: Mathematics was in Term 1 2026. Armani's scale score was 48.8 ± 3.5 patm units.

About this assessment

[PAT Pāngarau](#) is a mathematics assessment developed by the New Zealand Council for Educational Research (NZCER). It helps teachers understand how students are progressing in maths and plan their next learning steps.

The test includes a range of maths skills, such as number knowledge, problem-solving, and patterns. Each student's results are placed on the same scale (called the patm scale), so progress can be tracked over time.

PAT reports NZCER Assist

A screenshot of the NZCER Assist login interface. The page has an orange background with a white border. At the top right is the NZCER logo and text. Below it are input fields for 'Email / Username' (containing 'JulieR') and 'Password' (masked with dots). A 'SIGN IN' button is to the left of a 'Forgot password?' link. At the bottom, there is a 'Sign up now!' link, a 'Terms of Use' link, and a version number.

NZCER
Rangahau Mātauranga o Aotearoa

Email / Username

JulieR

Password

.....

SIGN IN [Forgot password?](#)

Need an account? [Sign up now!](#)

[Terms of Use](#)

Version: assist-frontend-20210323-1-prod

