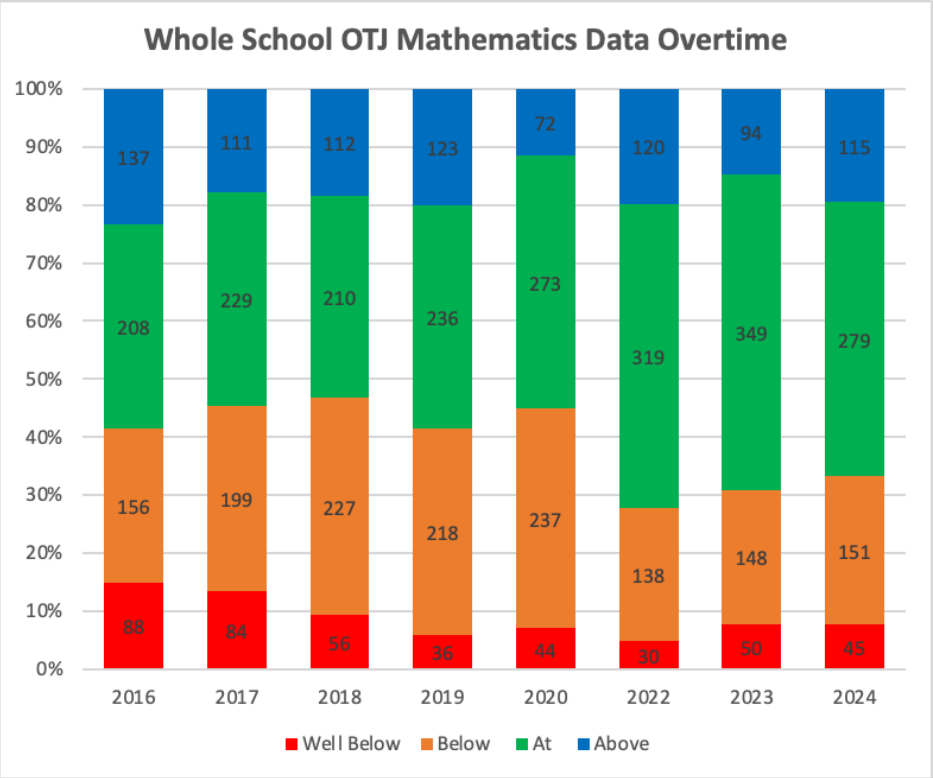
RANDWICK PARK SCHOOL
Kia tapu, kia mohio tahi tatou - Growing and Learning Together

Analysis of Variance - Mathematics 2024

The 2024 Whole School Target was to have 75% or more of all students working At or Above the expectation for Mathematics, this would be an increase of 5.9%. The following is a in-depth analysis of the 2024 data for Mathematics in aiming for that target.



In 2024, 66.7% of students achieved At or Above expectation in Mathematics, reflecting a 2.4% decline from 2023. This continues a downward trend, as 2023 also saw a decrease from 2022. The percentage of students Below expectation increased by 2.4%, while the proportion of students Well Below remained relatively stable with a minor 0.2% increase.

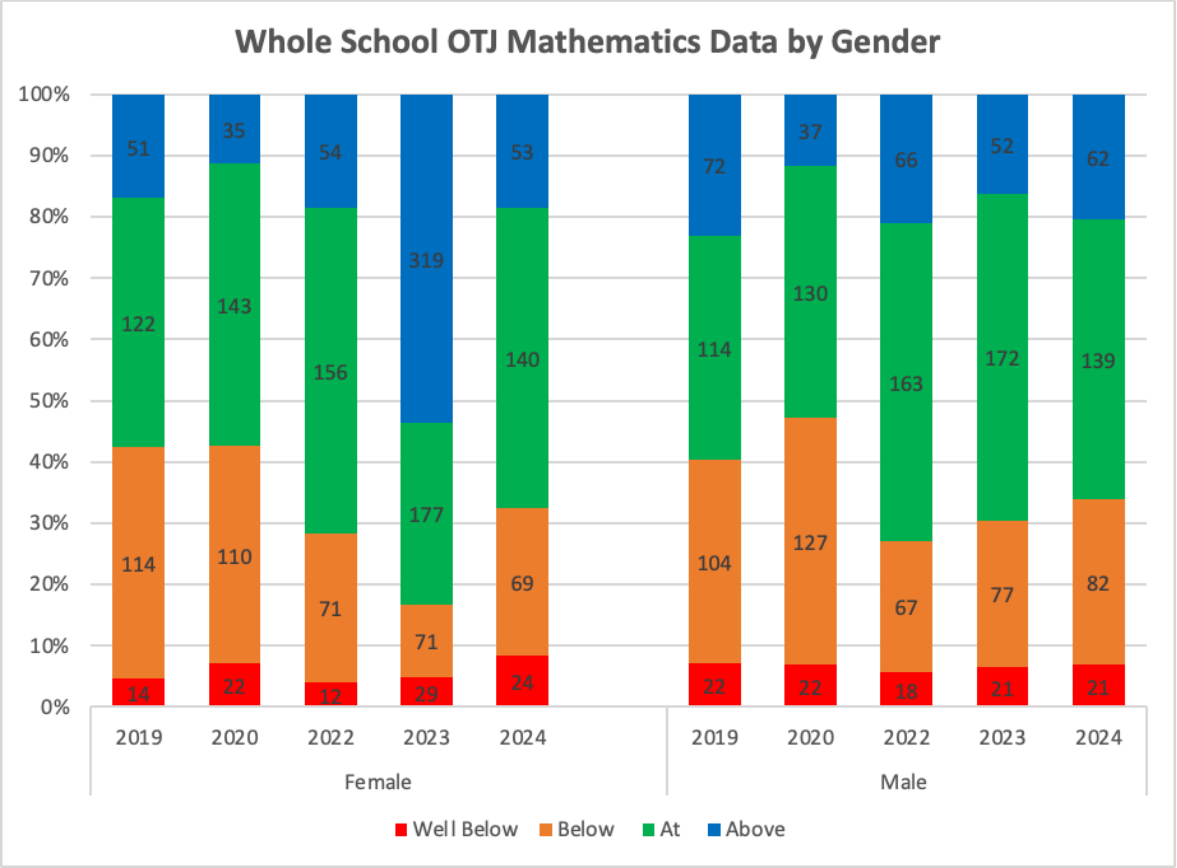
While the overall achievement levels remain strong, the increasing proportion of students performing Below expectation signals a need for targeted support. Addressing these trends will be essential to reversing the decline and ensuring sustained progress in Mathematics across all student groups.

Summary of achievement results:

All Students Mathematics	2023	2024	Different
Above/At	69.1% (443/641)	66.8% (394/590)	2.3% decrease
Below	23.1% (148/641)	25.6% (151/590)	2.5% increase
Well Below	7.8% (50/641)	7.6% (45/590)	.2% decrease

OTJ Data Comparisons: 2023 - 2024

Analysing the whole school data across the genders we can see shifts that are reflective of this upward trend of female students moving from Well Below to Below, while the male students are decreasing in numbers in reaching or exceeding expectations.



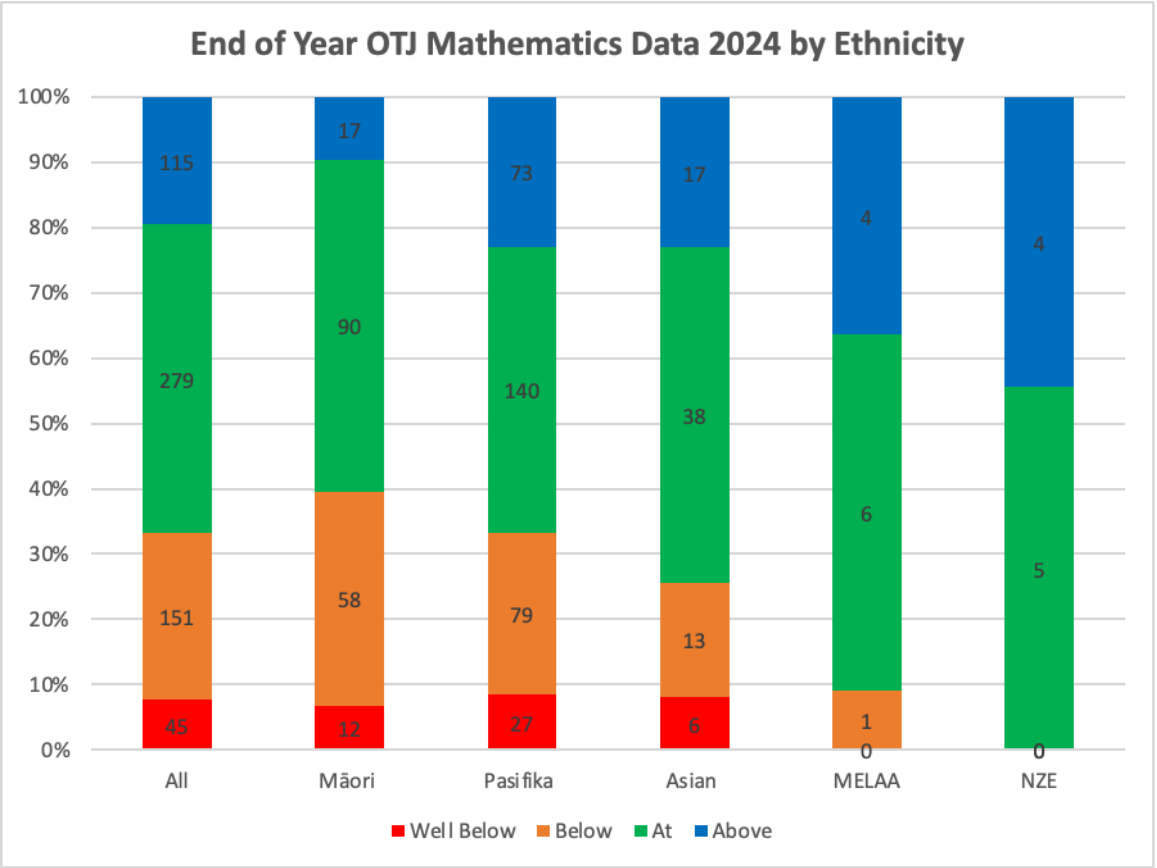
Outcomes:

Female	2023	2024	Difference
Above/At	68.7% (219/319)	67.5% (193/286)	1.2% decrease
Below	22.3% (71/319)	24.1% (61/286)	1.8% increase
Well Below	9.1% (29/319)	8.4% (39/286)	0.7% decrease

In 2024, 67.5% of female students achieved At or Above expectation in Mathematics, a slight decrease of 1.2% from 2023. The percentage of students Below increased by 1.8%, while the proportion of students Well Below saw a small improvement, decreasing by 0.7%. Although overall achievement remains steady, the increase in students Below expectation highlights the need for focused support to ensure more female students reach their full potential in Mathematics.

Male	2023	2024	Difference
Above/At	69.6% (224/322)	66.1% (201/304)	3.5% decrease
Below	23.9% (77/322)	27% (82/304)	3.1% increase
Well Below	6.5% (21/322)	6.9% (21/304)	0.4% increase

In 2024, 66.1% of male students achieved At or Above expectations in Mathematics, a 3.5% decline from 2023. The percentage of students Below increased by 3.1%, while those Well Below saw a slight 0.4% increase. Usually, our male students perform slightly higher than female students in Mathematics, however, in 2024 we saw female students overtake their male peers by 1.4% at achieving At or Above. However, the steady decline in performance highlights the need for targeted interventions to support students at all levels.



Outcomes:

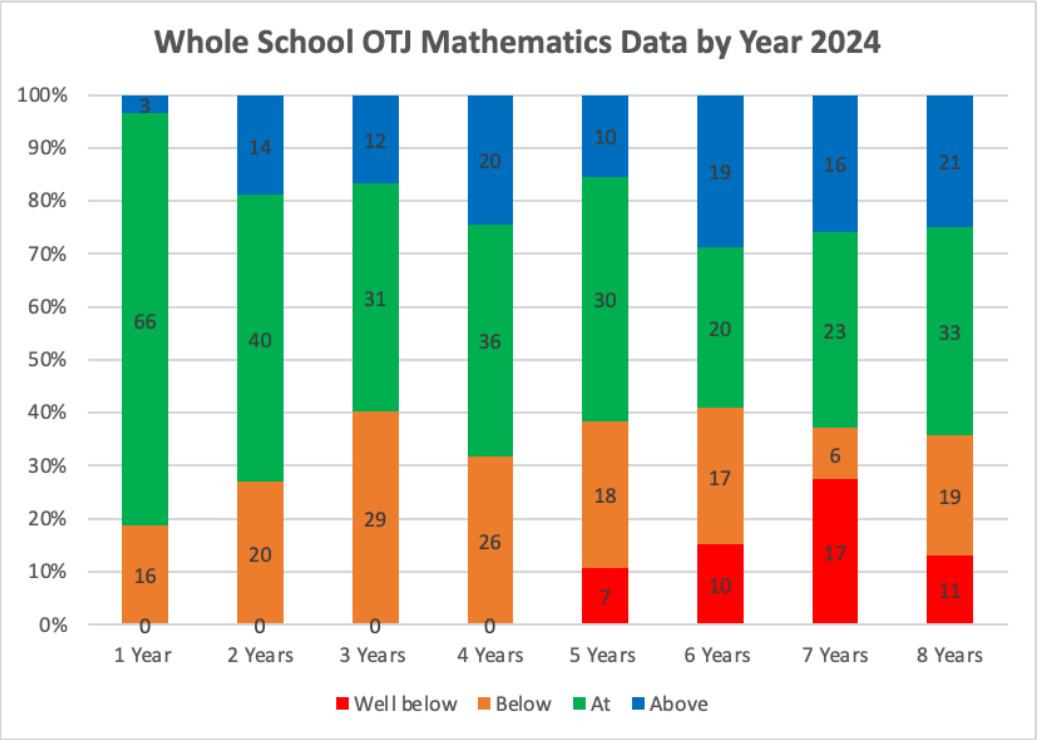
MATHEMATICS	All	Māori	Pasifika	Asian
Above/At	66.7%	60.5%	66.8%	74.3%
Below	25.5%	32.8%	24.8%	17.6%
Well Below	7.6%	6.8%	8.5%	8.1%

Overall, 66.7% of students achieved At or Above expectation in Mathematics, reflecting a continued decline from 69.1% in 2023. Achievement varies across ethnic groups, with Asian students performing the highest at 74.3%, while Māori students have the lowest percentage at 60.5%.

Key Concerns:

- Declining Achievement: The overall percentage of students At or Above expectation has dropped for a second consecutive year.
- Equity Gaps: Māori students continue to have the highest percentage of students Below or Well Below (39.6%), followed closely by Pasifika students (33.3%).
- Shifting Trends: Pasifika student achievement has declined from previous years, while Asian student performance remains strong but lower than in 2022.
- Targeted Support Needed: The high percentage of Māori and Pasifika students performing Below or Well Below highlights the need for focused interventions to close achievement gaps and improve overall student outcomes.

Addressing these disparities will require strategic efforts to provide culturally responsive teaching and tailored support for students most at risk of underachievement.



MATHEMATICS 2024	All	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
At/Above	66.8%	81.2%	73%	59.7%	68.3%	61.5%	59.1%	62.9%	64.3%
Below	25.6%	18.8%	27%	40.3%	31.7%	27.7%	25.8%	9.7%	22.6%
Well Below	7.6%	0%	0%	0%	0%	10.8%	15.1%	27.4%	13.1%

In 2024, overall mathematics achievement declined, with 66.8% of students achieving At or Above expectation. The data reveals notable shifts across year levels:

- The strongest performance is seen in Year 1 students has the highest achievement, with 81.2% At or Above, while Year 2 students saw a drop from 77.8% in 2023 to 73% in 2024.
- Declining achievement can be seen in Year 3 and Year 5 students. This showing concerning trends, with only 59.7% and 61.5% At or Above, respectively.
- High concern is noted in years 6 and year 7. These students continue to have the highest proportion of students Below or Well Below, with 40.9% and 37.1% respectively. Alarmingly, 27.4% of Year 7 students are now Well Below, up from 25.9% in 2023.

Key Concerns:

- A growing number of students in Years 6 and 7 are performing Well Below, indicating a need for targeted intervention.
- Year 3 achievement has dropped significantly, requiring additional support for those students.
- The transition between Year 5 to Year 7 appears to be a critical area where achievement gaps widen.

Focused strategies will be essential to address these trends, particularly in the middle and senior years, to ensure sustained progress in mathematics.

2025 Targets

Based on the 2024 OTJ Data

In 2024, 66.8% of students achieved At or Above expectation in Mathematics, while 25.6% were Below and 7.6% were Well Below. Despite our efforts, we did not meet the target set in 2024 of 80%.

For 2025, our goal is to have 75% or more of all students working At or Above expectation in Mathematics, an increase of 8.2%. To achieve this, we aim to reduce the percentage of students Below expectation by 5.6% and those Well Below by 2.6%. This targeted approach will ensure more students experience success in Mathematics, strengthening their overall learning and achievement.

MATHEMATICS 2025	At and Above	Below	Well Below
Whole School Targets	75%	20%	5%
Shift required	8.2% increase	5.6% decrease	2.6% decrease

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To increase the percentage of students achieving At or Above expectation in Mathematics to 75%, we will implement a combination of high-quality teaching strategies and new resources to support learning.

Quality Teaching Strategies: (To include but not be limited to)

- Explicit, Structured Teaching: Using clear, step-by-step instruction to build strong foundational skills, particularly in number sense and problem-solving.
- Targeted Support: Providing differentiated instruction and small-group interventions for students Below and Well Below expectations.

- Mathematical Inquiry & Rich Tasks: Encouraging deeper thinking through real-world problem-solving and inquiry-based learning.
- Regular Formative Assessment: Using ongoing assessment to identify learning gaps and tailor instruction accordingly.
- Culturally Responsive Practices: Embedding contexts and examples relevant to students' backgrounds to enhance engagement and understanding.
- High-Quality Digital and Concrete Tools: Implementing interactive platforms and hands-on materials to reinforce learning and demonstrate understandings or misconceptions.

Priority Learners: Māori Students

MATHEMATICS 2025	At and Above	Below	Well Below
Maori Student Targets	70%	25%	5%
Shift required	9.5% increase	7.8% decrease	1.8% decrease

In 2025, our goal is for 70% of Māori students to achieve At or Above expectation in Mathematics. To reach this target, we are committed to reducing the percentage of students Below and Well Below by 7.8% and 1.8% respectively. Our focus will be on providing targeted support and effective strategies to accelerate progress and improve outcomes for Māori students.

Priority Learners: Pasifika Students

MATHEMATICS 2025	At and Above	Below	Well Below
Pasifika Student Targets	75%	20%	5%
Shift required	8.2% increase	4.8% decrease	3.5% decrease

In 2025, our goal is for 75% of Pasifika students to achieve At or Above expectation in Mathematics. To reach this target, we are committed to reducing the percentage of students Below and Well Below by 4.8% and 3.5% respectively. Our focus will be on providing targeted support and effective strategies to accelerate progress and improve outcomes for Pasifika students.

School Strategies to Lift Achievement

The basis for identifying areas for improvement:-

Formal testing alongside teacher OTJ and classroom observations:-

- JAM testing for all Y1-2 students and targeted students across the school
- PAT Testing for Years 4-8 twice yearly
- Mid and end-of-year OTJs, which are moderated at team and school level

- Classroom observations
- Continued introduction of the new refreshed Maths Curriculum (MoEd provided 4 days during 2025 and 2026)

Whole School Actions for Lifting Achievement:-

- Implementation of the refreshed New Zealand Mathematics Curriculum
- Development of a Randwick Park Mathematics Teaching Model
- Professional Development years 1-8 on using data to inform teaching
- Reviewing Best Evidence Synthesis with all staff
- Regular PLD on building both strategy and content knowledge for teachers
- Regular staff meetings across the year focused on improving Mathematics achievement
- Lead teacher and members of the core team to attend the Manurewa Maths Cluster PLD termly
- Maths curriculum team implementing PLD across their teams
- Self-review of assessment tools and procedures in Mathematics
- Continued use of Mangahigh across Years 3-8. Targeted PLD on implementing it effectively
- Data analysis sheets in Year 1-8 to identify student needs and inform teacher planning.
- Progress and data tracking once a term so show movement of students, inform teachers “Teachimg as Inquiry”, determine PLD within teams and to identify the progress of each individual child
- Strategic resourcing to support learning
- Board to continue to support programmes that run alongside regular teaching
- Extension Programme for students achieving Above National Expectations in Mathematics
    - Kiwi Kid Maths Competition
    - Mathex Years 5-8

Other:-

- One day professional development at the start of the year ‘Getting to Know our Learners Inside Out – Mai i Roto ki Waho’
- Time prioritized at staff and team meetings for analysis and review of data and learning plans