

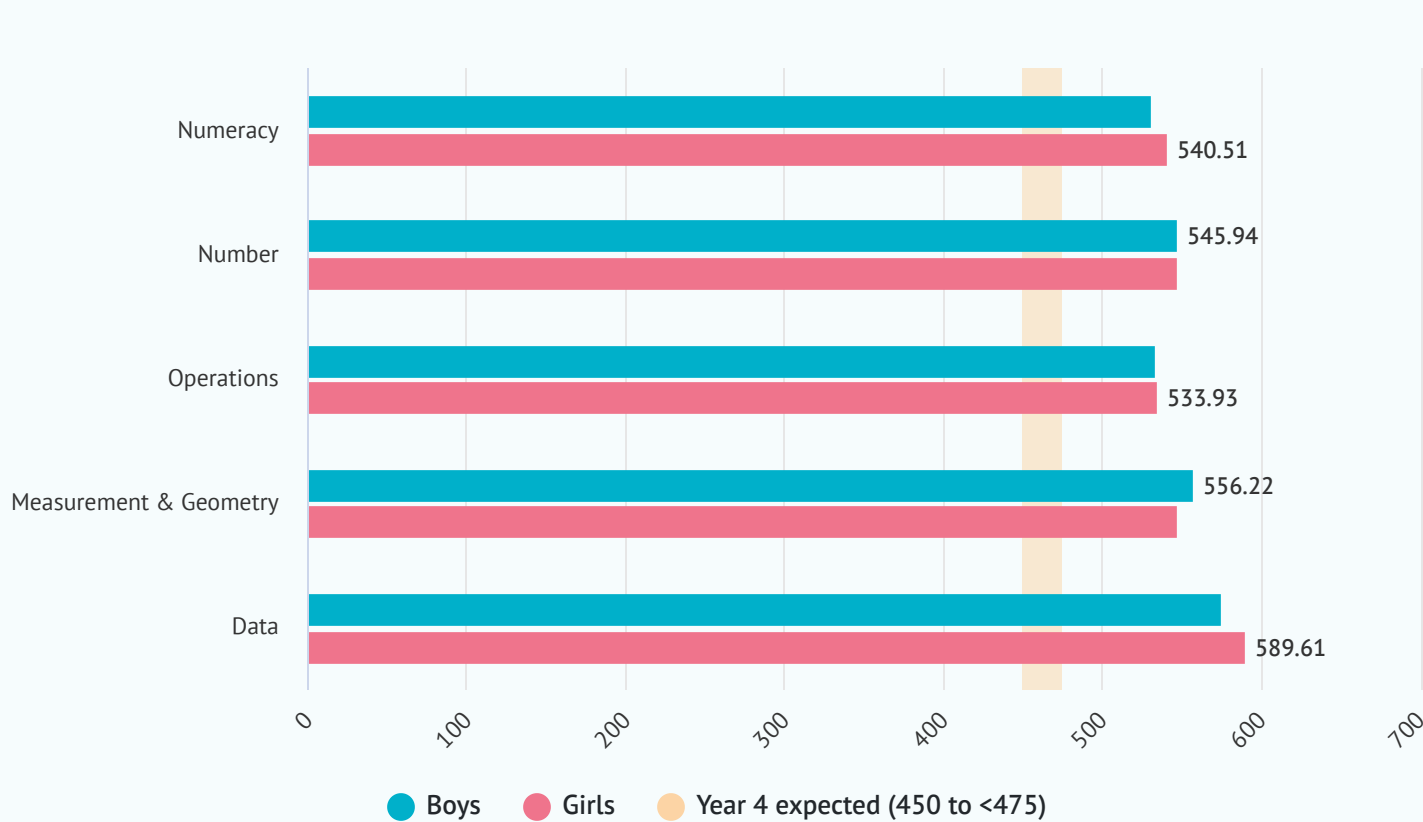
2021 Niue Report / Performance / Numeracy / Year 4 numeracy / Performance by gender

Year 4 Numeracy Performance by gender

A slightly unequal number of year four girls and boys in Niue had their performance analysed in the PILNA 2021 numeracy assessment: 45% girls and 55% boys.

Figure CNF4.4

Year 4 Numeracy mean performance in domain and strands by gender



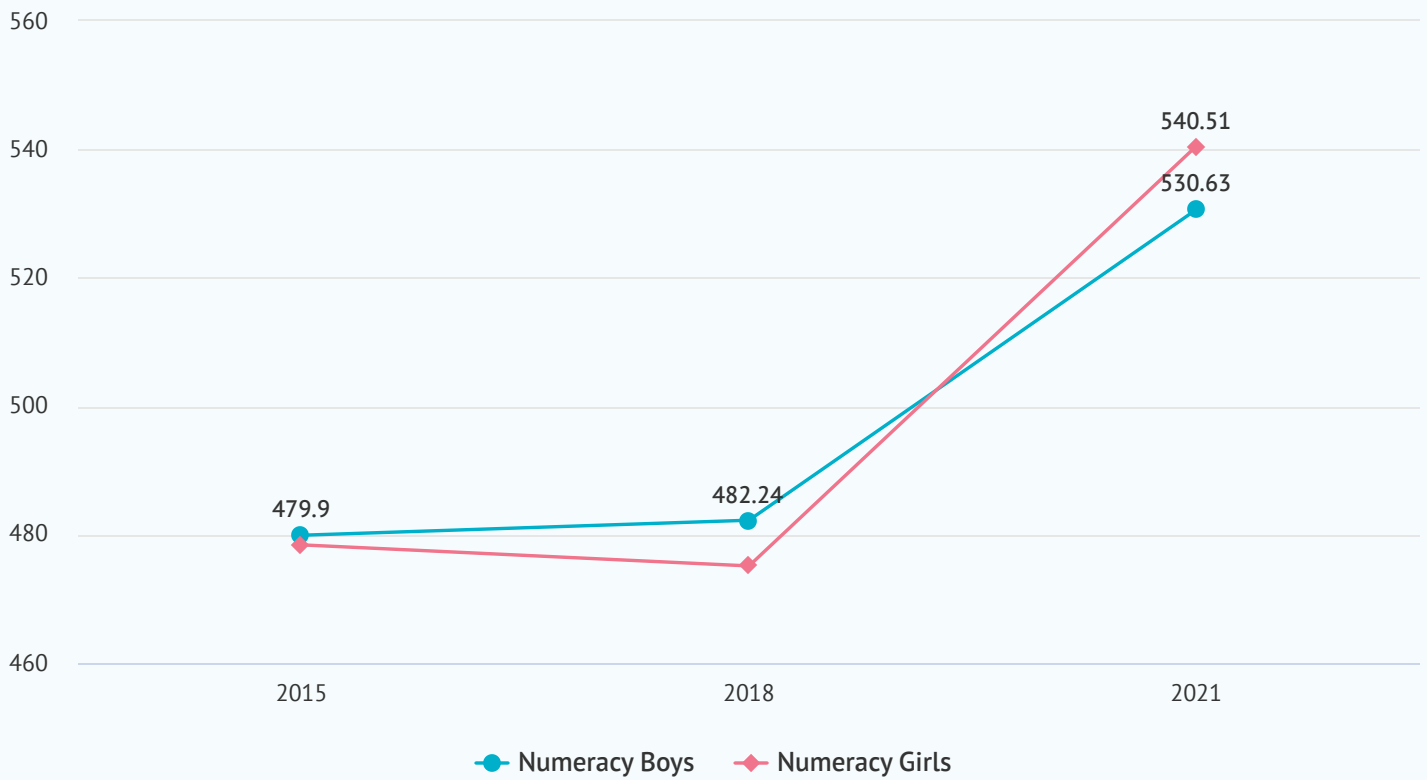
Category	Boys	Girls
Numeracy	530.63	540.51
Number	545.94	545.97
Operations	532.25	533.93
Measurement & Geometry	556.22	546.67
Data	574.58	589.61

Mean performance of Year 4 students in domain and strands by gender, Niue, PILNA 2021

Figure CNF4.4 shows the average numeracy performance of year four students in Niue by gender. On average, year four girls (540.51) scored higher than year four boys (530.63) in overall numeracy performance. This was inconsistent with previous PILNA cycles. In 2018, boys scored slightly higher than girls and, in 2015, both genders scored about the same (Figure CNF4.4.1).

Figure CNF4.4.1

Year 4 Numeracy mean performance by gender over time

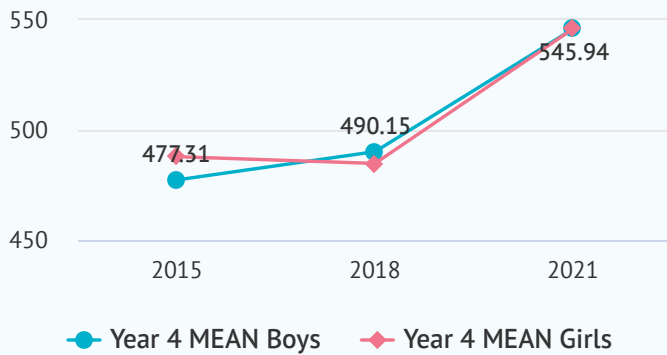


Year	Numeracy Boys	Numeracy Girls
2015	479.9	478.4
2018	482.24	475.12
2021	530.63	540.51

Mean performance of Year 4 students in numeracy, by gender, over time, Niue, PILNA 2015, 2018, 2021

Figure CNF4.4.2

Year 4 Number mean performance by gender over time

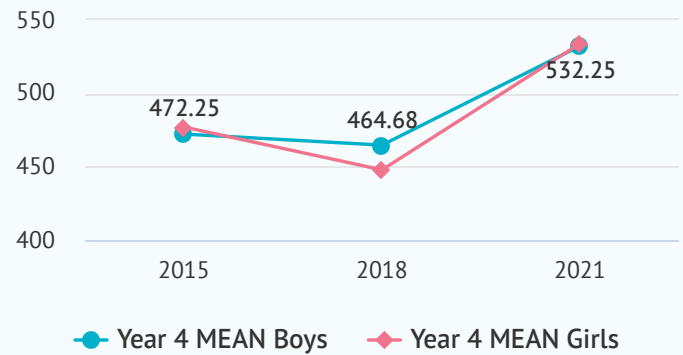


Year	Year 4 MEAN Boys	Year 4 MEAN Girls
2015	477.31	487.87
2018	490.15	484.8
2021	545.94	545.97

Mean performance of Year 4 students in number strand, by gender, over time, Niue, PILNA 2015, 2018, 2021

Figure CNF4.4.3

Year 4 Operations mean performance by gender over time

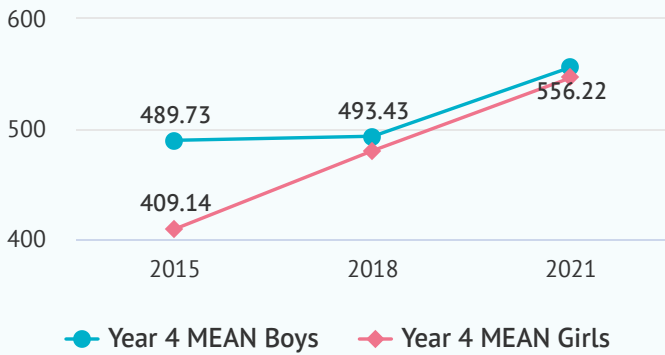


Year	Year 4 MEAN Boys	Year 4 MEAN Girls
2015	472.25	477.02
2018	464.68	447.84
2021	532.25	533.93

Mean performance of Year 4 students in operations strand, by gender, over time, Niue, PILNA 2015, 2018, 2021.

Figure CNF4.4.4

Year 4 Measurement & Geometry mean performance by gender over time

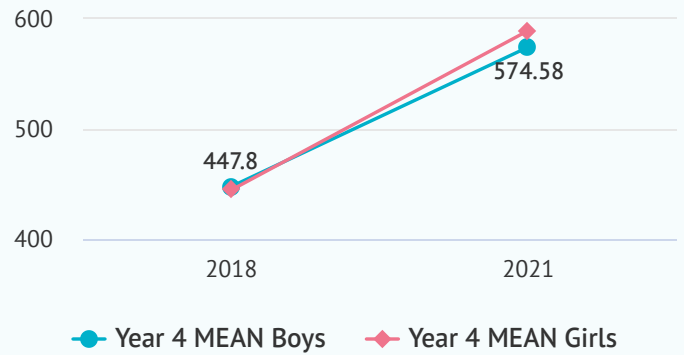


Year	Year 4 MEAN Boys	Year 4 MEAN Girls
2015	489.73	409.14
2018	493.43	480.39
2021	556.22	546.67

Mean performance of Year 4 students in measurement & geometry strand, by gender, over time, Niue, PILNA 2015, 2018, 2021.

Figure CNF4.4.5

Year 4 Data mean performance by gender over time



Year	Year 4 MEAN Boys	Year 4 MEAN Girls
2018	447.8	444.66
2021	574.58	589.61

Mean performance of Year 4 students in data & chance strand, by gender, over time, Niue, PILNA 2018, 2021.

At the strand level, there were differences. In 2021, both genders scored about the same in the 'Number' strand and the 'Operations' strand; boys scored slightly higher than girls in the 'Measurement & Geometry' strand; and girls scored higher than boys in the 'Data' strand.

Further statistical testing needs to be done to understand if these differences in scores are significant or the result of chance or outliers.