

Expectations for Number

The New Zealand Curriculum and the Mathematics Standards

After One Year at School Number Expectation

Working at early Curriculum Level 1, Numeracy Strategy Stages 2 or 3: Counting from One

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

After Two Years at School Number Expectation

Working at Curriculum Level 1, Numeracy Strategy Stage 4: Advanced Counting

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

After Three Years at School Number Expectation

Working at early Curriculum Level 2, early Numeracy Strategy Stage 5: Early Additive Part-Whole

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

By the End of Year 4 Number Expectation

Working at Curriculum Level 2, Numeracy Strategy Stage 5: Early Additive Part-Whole

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

By the End of Year 5 Number Expectation

Working at early Curriculum Level 3, early Numeracy Strategy Stage 6: Advanced Additive Early Multiplicative

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

By the End of Year 6 Number Expectation

Working at Curriculum Level 3, Numeracy Strategy Stage 6: Advanced Additive Early Multiplicative

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

By the End of Year 7 Number Expectation

Working at early Curriculum Level 4, early Numeracy Strategy Stage 7: Advanced Multiplicative Early Proportional

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

By the End of Year 8 Number Expectation

Working at Curriculum Level 4, Numeracy Strategy Stage 7: Advanced Multiplicative Early Proportional

Curriculum Level 1		Curriculum Level 2		Curriculum Level 3		Curriculum Level 4		Curriculum Level 5
Standard after 1 year	Standard after 2 years	Standard after 3 years	Standard at end of year 4	Standard at end of year 5	Standard at end of year 6	Standard at end of year 7	Standard at end of year 8	
Numeracy Strategy Stages 2 or 3 Count from one	Numeracy Strategy Stage 4 Advanced Counting	Numeracy Strategy Stage 5 Early Additive Part Whole		Numeracy Strategy Stage 6 Advanced Additive Early Multiplicative		Numeracy Strategy Stage 7 Advanced Multiplicative Early Proportional		Numeracy Strategy Stage 8 Advanced Proportional

Expectations for Number

The New Zealand Curriculum and the Mathematics Standards

The shaded part in the diagrams above indicate the expected levels of achievement for number in *The New Zealand Curriculum*, The Number Framework from the Numeracy Development Projects and the Mathematics Standards for students in years 1 to 8. The diagram also illustrates the close alignment between standards, stages and curriculum levels.

The expectation is that by the end of the year, or time at school for the first three years, students will be working within the standard, stage, or level indicated by the shaded part of the diagram. This does not mean that the student has mastered all objectives or parts, but it does mean they can successfully complete problems or tasks that demonstrate they “know and are able to do” work within the standard or stage or level.

These expectations apply to the three operational domains of The Number Framework - Strategies: addition and subtraction, multiplication and division, and proportions and ratios. The standard or stage or level for each of the three domains for each student needs to be known. This information is used in making an overall teacher judgment in relation to the Mathematics Standards.

At, Above, Below, Well Below

NAG 2A requires the numbers and proportions of students at, above, below or well below the standards to be described in the Board of Trustees’ annual report. As a general guide;

- above – achievement a year or more above the expectation
- at – achievement at the expectation
- below – achievement is one year below the expectation
- well below – achievement is more than one year below the expectation

Please note that schools are not required to use the terms: above, at, below and well below in reporting to parents, although some schools may choose to use them.

The terms ‘below’ and ‘well below’ are similar to the terms ‘cause for concern’ and ‘at risk’ previously used in the numeracy expectations. Students rated as ‘below’ or ‘cause for concern’ are those who are below expectations, although at a stage where it is reasonable to expect classroom teachers to be able to move them to the expected stage. A student rated as “well below” or “at risk” is sufficiently below expectations that their future learning in mathematics is in jeopardy. These students require special teaching, modified classroom programmes and extra support to continue their development and maintain positive attitudes. The support required is likely to be beyond what can be reasonably expected from their classroom teacher alone.

Although the terms ‘well above’ or ‘high achievers’ are not used in the standards, students with achievement two or more years above expectation may require special teaching, modified classroom programmes and extra support to continue their development and maintain positive attitudes.