



# ST GERARDS SCHOOL

LOVE-aroha ai... LEARN-ako ai... GROW-tipu ai

## Number and Algebra Achievement Objectives with Numeracy Stages

Number and Algebra AO's	Level 1	Level 2	Level 3	Level 4	Level 5
<b>Standard after years</b>	After 1                  After 2	After 3                  After 4	After 5                  After 6	After 7                  After 8	
<b>Numeracy Stage</b>	2-3                          4	5	6	7	8
<b>Number Strategies</b>	Use a range of counting, grouping, and equal-sharing strategies with whole numbers and fractions	Use simple additive strategies with whole numbers and fractions.	Use a range of additive and simple multiplicative strategies with whole numbers, fractions, decimals and percentages.	Use a range of multiplicative strategies when operating on whole numbers. Understand addition and subtraction of fractions, decimals and integers. Find fractions, decimals and percentages of amounts expressed as whole numbers, simple fractions and decimals. Apply simple linear proportions, including	Reason with linear proportions. Use prime numbers, common factors and multiples, and powers (including square roots). Understand operations on fractions, decimals, percentages and integers. Use rates and ratios. Know commonly used fraction, decimal and percentage conversions. Know and apply standard
<b>Number Knowledge</b>	Know the forward and backward counting sequences of whole numbers to 100. Know groupings within five, within ten, and within ten.	Know forward and backward counting sequences with whole numbers to at least 1000. Know the basic addition and subtraction facts. Know how many ones, tens, and hundreds are in	Know basic multiplication and division facts. Know counting sequences for whole numbers. Know how many tenths, tens, hundreds, and thousands are in whole numbers.		

		whole numbers to at least 1000. Know simple fractions in everyday use.	Know fractions and percentages in everyday use.	ordering fractions. Know the equivalent decimal and percentage forms for everyday fractions. Know the relative size and place value structure of positive and negative integers and decimals to three places.	form, significant figures, rounding and decimal place value.
<b>Equations and Expressions</b>	Communicate and explain counting, grouping, and equal-sharing strategies, using words, numbers, and pictures.	Communicate and interpret simple additive strategies, using words, diagrams (pictures), and symbols.	Record and interpret additive and simple multiplicative strategies, using words, diagrams, and symbols, with an understanding of equality.	Form and solve simple linear equations.	Form and solve linear and simple quadratic equations.
<b>Patterns and Relationships</b>	Generalise that the next counting number gives the result of adding one object to a set and that counting the number of objects in a set tells how many. Create and continue sequential patterns.	Generalise that whole numbers can be partitioned in many ways. Find rules for the next member in a sequential pattern.	Generalise the properties of addition and subtraction with whole numbers. Connect members of sequential patterns with their ordinal position and use tables, graphs and diagrams to find relationships between successive elements of number and spatial patterns.	Generalise properties of multiplication and division with whole numbers. Use graphs, tables and rules to describe linear relationships found in number and spatial patterns.	Generalise the properties of operations with fractional numbers and integers. Relate tables, graphs, and equations to linear and simple quadratic relationships found in number and spatial patterns.