

Ministry-funded Y0-Y8 Maths Resource Curriculum Alignment Guide



The purpose of this guide is to enable schools to use existing Ministry-funded Maths resources with the updated Mathematics and Statistics learning area (October 2025). The guide identifies the Strands, Elements and Practices in the updated Maths and Statistics learning area and shows the location of this learning in existing print and digital resources.

Learning Level	Phase 3 - Years 7-8
Supplier	Numicon

Year 7

Strand and Element	Practices The skills, strategies, and applications to teach	Resource Title (NPC: Number, Pattern and Calculating Teaching Handbook; GMS: Geometry, Measurement and Statistics Teaching Handbook)	Resource Type	Teacher/ Student	Page/ Section Reference	Notes (Printable packs are downloaded from Numicon online)
Number: number structures and operations	Reading, writing comparing, and ordering whole numbers using powers of 10 (e.g. $10,000 = 10^4$, $1000 < 10^4$)	NUMICON 5 (NPC) Numbers and the Number system 1 Working with numbers to a million Activity 1, 6, 7	Digital	Teacher	84-89	Concept Exponents not included
			Print	Student	2 - 5	
		NUMICON 6 (NPC) Numbers and the Number system 1 Working with numbers beyond a million and decimals	Digital	Teacher	74-80	
			Print	Student	2-4	
	Finding the highest common factor (HCF) of two numbers under 100, and finding the least common multiple (LCM) of two numbers under 10	NUMICON 5 (NPC) Pattern & Algebra 3 Properties of number	Digital	Teacher	55-61	
			Print	Student	74-77	
		NUMICON 6 (NPC) Pattern & Algebra 1 Multiples factors and primes	Digital	Teacher	39-42	
			Print	Student	18-21	
	Using exponents and identifying square roots for square numbers up to at least 144	NUMICON 5 (NPC) Pattern & Algebra 4 Looking for patterns and generalising	Digital	Teacher	65-68	Exponents not included
			Print	Student	106-109	
	Using rounding and estimation to predict results and to check the reasonableness of calculations (e.g. $0.73 + 0.8 + 0.999$ must be less than 3 since each are close to but less than 1)	NUMICON 5 (NPC) Numbers and the Number system 4 Estimating and rounding	Digital	Teacher	101-107	Introduces symbol of approximately equal \approx
			Print	Student	26-29	

Number: number structures and operations	Rounding whole numbers to any specified power of 10, and rounding decimals to the nearest whole number, tenth, or hundredth	NUMICON 6 (NPC) Numbers and the Number system 1 Working with numbers beyond a million Activity 4	Digital	Teacher	75 77	Exponents not included	
			Print	Student	4		
			NUMICON 5 (NPC) Numbers and the Number system 4 Estimating and rounding	Digital	Teacher	101-107	
				Print	Student	26-29	
	Using divisibility rules to identify numbers that are divisible by 2, 3, 4, 5, 6, 8, 9, and 10	NUMICON 6 (NPC) Pattern & Algebra 1 Multiples factors and primes	Digital	Teacher	34-38		
			Print	Student	18-21		
		NUMICON 6 (NPC) Pattern & Algebra 4 Activity 5, 5b	Digital	Teacher	67-68		
			Print	Student	102-105		
		NUMICON 5 (NPC) Pattern & Algebra 4 Looking for patterns and generalizing Activity 1	Digital	Teacher	62, 63, 68		
			Print	Student	106		
	Multiplying whole numbers	NUMICON 6 (NPC) Calculating 9 Written methods of multiplying	Digital	Teacher	159-166		
			Print	Student	66-69		
		NUMICON 5 (NPC) Calculating 12 Written methods of multiplying	Digital	Teacher	199-203		
			Print	Student	114-117		
Dividing whole numbers by one- or two-digit divisors (e.g. $327 \div 5 = 65.4$ or $65 \frac{2}{5}$)	NUMICON 6 (NPC) Calculating 10 Written methods of multiplying	Digital	Teacher	166-176			
		Print	Student	66-69			
	NUMICON 5 (NPC) Calculating 13 Written methods of dividing	Digital	Teacher	204-208			
		Print	Student	122-125			
Evaluating expressions using the order of operations	NUMICON 6 (NPC) Calculating 6 Exploring calculations: multistep non-routine problems and order of operations	Digital	Teacher	135-142			
		Print	Student	42-45			
Locating integers on a number line	NUMICON 4 (NPC) Numbers and the Number System 4 Introducing negative numbers Activity 1, 2	Digital	Teacher	107-112			
		Print	Student	58			

Number: number structures and operations	Ordering whole negative and positive numbers using a number line	NUMICON 4 (NPC) Numbers and the Number System 4 Introducing negative numbers Activity 3	Digital	Teacher	107-112	
			Print	Student	58 - 61	
		NUMICON 5 (NPC) Numbers and the Number System 5 Working with negative numbers	Digital	Teacher	110-115	
			Print	Student	42-45	
	Representing addition and subtraction of integers using a number line	NUMICON 4 (NPC) Numbers and the Number system 4 Introducing negative numbers Activity 6	Digital	Teacher	107-112	
			Print	Student	58 - 61	
		NUMICON 5 (NPC) Numbers and the Number system 5 Working with negative numbers	Digital	Teacher	110-115	
			Print	Student	42-45	
	Identifying, reading, writing, and representing fractions, decimals, and percentages	NUMICON 6 (NPC) Calculating 5 Percentages	Digital	Teacher	124-132	
			Print	Student	34-37	
		NUMICON 5 (NPC) Numbers and the Number System 7 Solving problems with fractions, decimals and percentages	Digital	Teacher	121-127	
			Print	Student	102-105	
	Comparing, ordering, and converting between fractions, decimals, and percentages	NUMICON 5 (NPC) Calculating 11 Percentages Activities 4c, 4c	Digital	Teacher	195-196	eBook and printable pack
			Print	Student	97	
NUMICON 5 (NPC) Numbers and the Number System 7 Solving problems with fractions, decimals and percentages		Digital	Teacher	121-127		
		Print	Student	102-105		
NUMICON 6 (NPC) Calculating 8 Converting fractions and decimals		Digital	Teacher	150-156		
		Print	Student	54-57		
Multiplying and dividing numbers by powers of 10		NUMICON 6 (NPC) Calculating 2 Multiplying and dividing Activity 4	Digital	Teacher	103	Exponents not covered
			Print	Student	13	

Number: number structures and operations	Finding equivalent fractions and representing fractions in their simplest form	NUMICON 5 (NPC) Pattern & Algebra 1 Exploring sequences and number patterns Activity 6, 7	Digital	Teacher	49-50		
			Print	Student	34-37		
		NUMICON 5 (NPC) Numbers and the Number system 6 Comparing and ordering fractions	Digital	Teacher	116-120		
			Print	Student	50-53		
	Multiplying whole numbers by fractions and representing the answer in its simplest form	NUMICON 5 (NPC) Calculating 15 Calculating with fractions	Digital	Teacher	212-219		
			Print	Student	141		
		NUMICON 6 (NPC) Calculating 12 Multiplying and dividing fractions	Digital	Teacher	183-187		
			Print	Student	82-85		
	Multiplying decimals by whole numbers (e.g. 0.7×5 and 0.7×50 , which both relate to knowing $7 \times 5 = 35$)	NUMICON 5 (NPC) Calculating 4 Developing fluency with multiplying and dividing Activity 8	Digital	Teacher	153-154		
			Print	Student	49		
	Dividing fractions by whole numbers and representing the answer in its simplest form	NUMICON 6 (NPC) Calculating 12 Multiplying and dividing fractions Activity 4	Digital	Teacher	186		
			Print	Student	85		
	Dividing a whole number by a unit fraction	NUMICON 5 (NPC) Calculating 12 Multiplying and dividing fractions Activities 3 and 4	Digital	Teacher	183-187		
			Print	Student	82-85		
Numicon 6 (NPC) Calculating 12 Multiplying and dividing fractions Activity 4		Digital	Teacher	188-189			
		Print	Student	85			
Representing numbers in expanded form using powers of 10 (e.g. $34,506 = 3 \times 10^4 + 4 \times 10^3 + 5 \times 10^2 + 6$)		Digital	Teacher	223-225	Exponents not covered		
		Print	Explorer Progress Book 6C	10-11			
Using radicals ($\sqrt{\quad}$) to represent square roots	NUMICON 6 (NPC) Investigating 1 Making Squares	Digital	Teacher	223-225			
		Print	Explorer Progress Book 6C	10-11			

Number: number structures and operations	Identifying prime numbers to 100	NUMICON 5 (NPC) Pattern & Algebra 3 Properties of number Activity 7	Digital	Teacher	58-59	
			Print	Student	77	
		NUMICON 5 (GMS) Measurement 3 Calculating area and perimeter Activity 2	Digital	Teacher	8 82	
			Print	Student	111	
	Identifying the additive inverse of any number	NUMICON 5 (NPC) Pattern & Algebra 2 Using inverse relationships to solve problems	Digital	Teacher	49-54	
			Print	Student	58-61	
	Using negative numbers to solve problems in a range of contexts, including the measurement of temperature and finance	NUMICON 5 (NPC) Numbers and the Number System 5 Working with negative numbers	Digital	Teacher	108-113	
			Print	Student	42-45	
	Adding and subtracting fractions, including improper fractions and mixed numbers, and representing the answer in its simplest form	NUMICON 6 (NPC) Calculating 11 Adding and subtracting with fractions	Digital	Teacher	178-184	
			Print	Student	78-81	
	Adding and subtracting decimals	NUMICON 5 (NPC) Calculating 5 Written methods of adding Activities 4 and 5	Digital	Teacher	158-161	
			Print	Student	60-61	
		NUMICON 5 (NPC) Calculating 6 Written methods of subtracting Activities 3 and 4	Digital	Teacher	164-167	
			Print	Student	64-65	
		NUMICON 6 (NPC) Calculating 4 Column methods for adding and subtracting	Digital	Teacher	117-125	
			Print	Student	30-33	
Finding a fraction of a whole number (e.g. 5/3 of 186)	NUMICON 5 (NPC) Calculating 14 Finding fractions of amounts	Digital	Teacher	205-210		
		Print	Student	126-129		
	NUMICON 6 (NPC) Calculating 12 Multiplying and dividing fractions Activity 4	Digital	Teacher	188-189		
		Print	Student	85		
Finding a whole amount when given a fraction (e.g. 5/4 of the set is 85, what is the whole set?)	NUMICON 4 (NPC) Calculating 11 Using multiplying facts to solve dividing problems Activity 5b	Digital	Teacher	213-215	Digital eBook 5b. Identify a whole set when given a fraction	
		Print	Student	93		
	NUMICON 5 (NPC) Calculating 14 Calculating fractions of amounts	Digital	Teacher	209-214		
		Print	Student	126-129		

Number: number structures and operations	Finding common percentages of whole numbers	NUMICON 5 (NPC) Numbers and the Number system 7 Solving problems with fractions, decimals and percentages	Digital	Teacher	119-125	
			Print	Student	102-105	
	Finding the whole (100%) when given a percentage (e.g. 40% is 28)	NUMICON 5 (NPC) Calculating 11 Percentages Activity 5	Digital	Teacher	197-198	
			Print	Student	94-95	
	Using proportional reasoning to explore multiplicative relationships between quantities (e.g. "If there are 3 red for every 7 blue balls, how many balls are there altogether when there are 18 red balls?")	NUMICON 5 (NPC) Calculating 10 Proportion and ratio	Digital	Teacher	186-191	
			Print	Student	90-93	
		NUMICON 6 (NPC) Calculating 7 Ratio and proportion	Digital	Teacher	141-147	
			Print	Student	46-49	
Number: financial maths	Calculating the total cost and change for a transaction involving any amount of money	NUMICON 4 (NPC) Using adding and subtracting facts and understanding inverse relationships Activity 4	Digital	Teacher	145-146	
			Print	Student	3	
		NUMICON 4 (NPC) Calculating 8 Developing fluency with the column method of adding Activity 7	Digital	Teacher	193	
			Print	Student	66-69	
		NUMICON 4 (NPC) Calculating 9 Developing fluency with the column method of subtracting Activity 5	Digital	Teacher	198	
			Print	Student	72	
	NUMICON 4 (GMS) Measurement 2 Calculating with money amounts	Digital	Teacher	72-79		
		Print	Student	130-133		
	Applying percentage discounts to whole dollar amounts (e.g. in a 20%-off sale)	NUMICON 5 (NPC) Calculating 11 Percentages	Digital	Teacher	192-198	eBook and in printable pack
			Print	Student	96	
NUMICON 6 (NPC) Calculating 5 Percentages Activity 1		Digital	Teacher	125		
		Print	Student	34		
Algebra: equations and relationships	Forming and solving one- and two-step linear equations with integer solutions (e.g. $t + 7 = 12$, $5s + 3 = 18$)	NUMICON 6 (NPC) Pattern & Algebra 3 Using algebra to solve problems	Digital	Teacher	52-60	
			Print	Student	86	

Algebra: equations and relationships	Using substitution to find the value of an expression or formula (e.g. calculating $w+12$ given $w=4$)	NUMICON 6 (NPC) Pattern & Algebra 4 Using algebra to solve problems	Digital	Teacher	61-70	
			Print	Student	102-105	
	Identifying the constant increase or decrease in a linear pattern, using variables and algebraic notation to represent the rule in an equation, and using the equation to make conjectures	NUMICON 6 (NPC) Pattern & Algebra 2 Exploring number sequences and relationships Activity 5	Digital	Teacher	43-51	
			Print	Student	58	
	Checking the truth of and completing number sentences involving all four operations and including the use of inequalities (e.g. $0.8 \times 12 \leq 8 \times 0.5 + 8$, true or false?)	NUMICON 5 (NPC) Pattern & Algebra 5 Using equivalence to solve problems	Digital	Teacher	70-76	
			Print	Student	154-157	
	Rearranging known formulae using one or two steps					Not in Numicon Resource*
	Simplifying expressions involving any of the four operations by collecting like terms (e.g. $3a+a+a=5a, 3b-2b=b$)	NUMICON 6 (NPC) Pattern & Algebra 3 Using algebra to solve problems Activity 2	Digital	Teacher	52-60	
			Print	Student	86	
		NUMICON 6 (NPC) Pattern & Algebra 4 Using symbols and letters for variables and unknowns Activity 7	Digital	Teacher	3 71	eBook and printable pack
	Identifying and plotting points in the four quadrants of the coordinate plane, using ordered pairs and values from a table	NUMICON 6 (GMS) Geometry 3 Transformations in the four quadrants Activities 1 and 2	Digital	Teacher	43-45	
			Print	Student	98	
	Using tables, graphs in the coordinate plane, and diagrams to recognise the relationship between the ordinal position and its corresponding element in a linear pattern, develop a rule for the pattern in words, and make conjectures about further elements in the pattern	NUMICON 6 (NPC) Pattern & Algebra 2 Exploring number sequences and relationships	Digital	Teacher	43-51	
			Print	Student	58	
	Using formulae to find unknown measurements related to area (e.g. the base of a triangle given its area and height, the area of a figure composed of a triangle and rectangle, given side lengths) Using formulae to find unknown measurements related to volume (e.g. the dimensions of a cube given its volume, the volume of a rectangular prism given side lengths)	NUMICON 6 (GMS) Measurement 2 Areas of 2D shapes	Digital	Teacher	65-74	
			Print	Student	50-53	
	NUMICON 6 (GMS) Measurement 4 Volume and scaling	Digital	Teacher	81-91		
		Print	Student	74-77		
Selecting and using an appropriate base measure (e.g. metre, gram, litre) within the metric system, along with a prefix (e.g. kilo-, centi-) to show the size of units	NUMICON 4 (GMS) Measurement 3 Understanding and using units of length and distance	Digital	Teacher	80-86		
		Print	Student	134-137		

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Algebra: equations and relationships	Using formulae to find unknown measurements related to perimeter (e.g. the length of the unknown sides of a square given its perimeter, the length of an unknown side in a composite shape given its perimeter)	NUMICON 4 (GMS) Measurement 6 Understanding perimeter and area	Digital	Teacher	101-107	
			Print	Student	150-153	
	Read, interpret, and use timetables and charts that present information about duration	NUMICON 4 (GMS) Measurement 1 Finding times and durations, and using the 24- hour clock	Digital	Teacher	63-71	
			Print	Student	110-113	
Geometry: shapes	Classifying triangles by both their angle and side properties	NUMICON 4 (GMS) Geometry 1 Classifying triangles and quadrilaterals	Digital	Teacher	28-36	
			Print	Student	26-29	
Geometry: spatial reasoning	Transforming 2D shapes in the coordinate plane by a single translation, reflection across a given mirror line, or a rotation about a given point by a multiple of 90 degrees	NUMICON 4 (GMS) Geometry 2 Understanding reflective symmetry	Digital	Teacher	37-44	Symmetry
			Print	Student	54-57	
		NUMICON 5 (GMS) Geometry 2 Transformations	Digital	Teacher	34-42	Symmetry Reflections Translations
			Print	Student	38-41	
		NUMICON 6 (GMS) Geometry 3 Transformations In the four quadrants	Digital	Teacher	43 - 51	Transformations Reflections
			Print	Student	98-101	
	Identifying the 2D shapes that compose 3D shapes	NUMICON 5 (GMS) Measurement 4 Estimating volume and capacity Activity 2	Digital	Teacher	88-89, 97	
			Print	Student	119	
		NUMICON 6 (NPC) GMS Investigations 1 Shape shifting	Digital	Teacher	94-98	
	Drawing nets for prisms and pyramids	NUMICON 6 (GMS) Measurement 3 3D shapes – nets and surface area	Print	Teacher	75-80	
			Digital	Student	64, 65	
	Reasoning about unknown angles in situations involving perpendicular lines, parallel lines, and transversals	NUMICON 6 (GMS) Geometry 1 2D Shapes and Angles Activity 5	Print	Teacher	32-33	
Digital			Student	41		
Solving for an unknown angle in a diagram by setting up and solving a multi-step equation based on supplementary, complementary, vertical, and adjacent angle relationships	NUMICON 6 (GMS) Geometry 1 2D shapes and angles Activity 5?	Print	Teacher	32-34		
		Digital	Student	41		

Geometry: pathways	Interpreting and communicating the location of positions and pathways using coordinates, angle measures, and the eight main and halfway compass points (e.g. NE, which is 45° E from N)	NUMICON 3 Geometry 4 Using Grids and references	Print	Teacher	49-55	
			Digital	Student	154-157	
		NUMICON 4 (GMS) Geometry 4 Reading and plotting positions using coordinates	Print	Teacher	51-58	
			Digital	Student	118-121	
		NUMICON 5 (GMS) Geometry 1 Measuring angles Activity 2	Digital	Teacher	29	eBook and printable pack
		NUMICON 5 (GMS) Geometry 1 Measuring angles Focus Activities 4, 5	Digital	Teacher	26-34	
Print	Student		16			
NUMICON 6 (GMS) Geometry 3 Transformations in the four quadrants Activity 6	Digital	Teacher	50			
	Print	Student	98-101			
Statistics: Developing knowledge from data	Planning and collecting data in order to respond to a statistical question (e.g. Are our feet the same length?)	NUMICON 5 (GMS) Measurement 2 Interpreting charts and graphs	Digital	Teacher	64-77	
			Print	Student	98-101	
		NUMICON 6 (NPC) Calculating 7 Ratio and proportion Activity 4	Digital	Teacher	148-149	
			Print	Student	46-49	
	Calculating the mean, median, and mode for numerical data	NUMICON 6 (GMS) Measurement 1 Statistics, charts and graphs	Digital	Teacher	53-64	
			Print	Student	14-17	
Calculating the range for numerical data	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack	
Statistics: Visualisation of data	For a given set of data, choosing and constructing an appropriate data visualisation according to the data type (e.g. a dot plot, bar graph, time-series graph)	NUMICON 6 (GMS) Measurement 1 Statistics, charts and graphs Activity 5	Digital	Teacher	60-64	
			Print	Student	14-17	
	Noticing and explaining outliers in a given set of data	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack

Statistics: Interpretation of data	Responding to statistical questions by calculating an appropriate measure of central tendency and range for a variety of data tables and data visualisations	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
	Interpreting data visualisations, including those from contemporary media	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
	Identifying when a data visualisation cannot be interpreted accurately due to missing information	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
	Identifying outliers by eye and taking them into account when using range as a measure of spread	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
Probability Experimental Probability	Carrying out a chance experiment and calculating the experimental probability of each outcome	NUMICON 5 (GMS) Statistics and Probability 2 Investigating probability	Digital	Teacher	131-137	S&P2 is eBook and printable pack
		NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations	Digital	Teacher	117-123	S&P2 is eBook and printable pack
	Comparing experimental probability (using at least 30 trials) to theoretical probability, and explaining why they differ and how increasing the number of trials reduces this difference	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations Activity 5	Digital	Teacher	117-123	S&P2 is eBook and printable pack
	Carrying out chance experiments of at least 100 trials and comparing the experimental probability of each individual outcome to its theoretical probability, in order to demonstrate the Law of Large Numbers	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations Activity 7	Digital	Teacher	117-123	S&P2 is eBook and printable pack
Probability Theoretical Probability	Calculating probabilities for events as decimals, fractions, and percentages	NUMICON 5 (GMS) Statistics and Probability 2 Investigating probability	Digital	Teacher	131-137	S&P2 is eBook and printable pack
		NUMICON 5 (GMS) Statistics and Probability 2 Investigating probability	Digital	Teacher	131-137	S&P2 is eBook and printable pack
	Comparing the likelihood of different events	NUMICON 5 (GMS) Statistics and Probability 2 Investigating probability	Digital	Teacher	131-137	S&P2 is eBook and printable pack
	Calculating probabilities for complementary events	NUMICON 5 (GMS) Statistics and Probability 2 Investigating probability	Digital	Teacher	131-137	S&P2 is eBook and printable pack

Year 8

Strand and Element	Practices The skills, strategies, and applications to teach	Resource Title (NPC: Number, Pattern and Calculating Teaching Handbook; GMS: Geometry, Measurement and Statistics Teaching Handbook)	Resource Type	Teacher/ Student	Page/ Section Reference	Notes (Printable packs are downloaded from the website)
Number: number structures	Reading, writing comparing, and ordering whole numbers and decimals using positive and negative powers of 10	NUMICON 5 (NPC) Numbers and the Number System 1 Working with numbers up to a million	Digital	Teacher	84-89	
			Print	Student	2-5	
		NUMICON 6 (NPC) Numbers and the Number System 1 Working with numbers beyond a million and decimals	Digital	Teacher	74-80	
			Print	Student	2-5	
		NUMICON 6 (NPC) Calculating 1 Adding and subtracting negative numbers in context, and large numbers	Digital	Teacher	90-97	
			Print	Student	6-9	
	Representing composite numbers as products of their prime factors, using exponents to summarise repeated factors (e.g. $36 = 2 \times 2 \times 3 \times 3 \times 3 = 2^2 \times 3^3$)	Digital	Teacher	34-42		
		Print	Student	18-21		
	Representing whole numbers and decimals in expanded form using powers of 10 (e.g. $3.61 = 3 \times 10^1 + 6 \times 10^{-1} + 1 \times 10^{-2}$)					Not in Numicon Resource*
	Representing negative powers of 10 as a fraction and a decimal, and vice-versa (e.g. $0.01 = \frac{1}{100} = 10^{-2}$)					Not in Numicon Resource*
	Using exponents and identifying cube roots for cube numbers up to at least 125	NUMICON 5 (NPC) Pattern & Algebra 4 Looking for patterns and generalizing Activity 7	Digital	Teacher	67 68	Cube roots not covered
			Print	Student	109	
	Using radicals ($\sqrt{\quad}$ and $\sqrt[3]{\quad}$) to represent square and cube roots	NUMICON 6 (NPC) Investigating 1 Making squares	Digital	Teacher	222-224	Cube roots not covered
			Print	Explorer Progress Book 6C	10-11	
Evaluating square and cube roots for perfect squares and cubes and using a calculator to approximate them for other numbers	NUMICON 5 (NPC) Pattern & Algebra 4 Looking for patterns and generalizing	Digital	Teacher	62-69	Activity 2b in digital eBook and printable pack	
		Print	Student	108-109		
Locating negative and positive numbers on a number line	NUMICON 4 (NPC) Numbers and the Number System 4 Introducing negative numbers	Digital	Teacher	107- 112		
		Print	Student	58-61		

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Number: number structures	Comparing and ordering negative and positive numbers using a number line (e.g. $-3.4 < -3$)	NUMICON 4 (NPC) Numbers and the Number System 4 Introducing negative numbers	Digital	Teacher	107- 112		
			Print	Student	58-61		
	Evaluating expressions involving negative numbers, addition, and subtraction (e.g. $3 + -7$)	NUMICON 5 (NPC) Numbers and the Number System 5 Working with negative numbers	Digital	Teacher	110- 115		
			Print	Student	42-45		
	Identifying percentage equivalence in calculations (e.g. 45% of 20 is equal to 20% of 45)	NUMICON 6 (NPC) Numbers and the Number System 1 Adding and subtracting with Negative numbers in context	Digital	Teacher	90-97		
			Print	Student	2-5		
	NUMICON 6 (NPC) Calculating 5 Percentages	Digital	Teacher	126-133			
		Print	Student	34-37			
Number: operations	Using rounding, estimation, and benchmarks to predict results and to check the reasonableness of calculations (e.g. 14.7×5 must be between $14 \times 5 = 70$ and $15 \times 5 = 75$)	NUMICON 6 (NPC) Calculating 1-13 Throughout	Digital	Teacher	89-196		
			Print	Student	Various		
	Rounding whole numbers to any specified power of 10, and rounding decimals to the nearest whole number, tenth, hundredth, or thousandth	NUMICON 6 (NPC) Numbers and the Number System 1 Working with numbers beyond a million and decimals	Digital	Teacher	74-80		
			Print	Student	2-5		
	Multiplying and dividing whole numbers (e.g. $327 \div 15 = 21.8$ or $21 \frac{4}{5}$)	NUMICON 6 (NPC) Calculating 10 Introducing long written methods of dividing Activity 5, 6	Digital	Teacher	172- 177		
			Print	Student	73		
	Evaluating expressions with integers, using the order of operations	NUMICON 6 (NPC) Calculating 1 Adding and subtracting with Negative Numbers in context	Digital	Teacher	90-97		
			Print	Student	6-9		
		NUMICON 6 (NPC) Calculating 13 Solving non-routine problems using all four operations	Digital	Teacher	190-196		
			Print	Student	94-97		
	Number: rational number	Identifying, reading, writing, and representing fractions, decimals, and percentages	NUMICON 6 (NPC) Calculating 5 Percentages Activity 1	Digital	Teacher	127-128	
				Print	Student	34	
		NUMICON 6 (NPC) Calculating 8 Converting fractions and decimals	Digital	Teacher	152-158		
			Print	Student	54-57		

Number: rational number	Comparing, ordering, and converting between fractions, decimals, and percentages	NUMICON 6 (NPC) Calculating 8 Converting fractions and decimals	Digital	Teacher	152-158	
			Print	Student	54-57	
		NUMICON 5 (NPC) Numbers and the Number System 7 Solving problems with fractions, decimals and percentages	Digital	Teacher	121-127	
			Print	Student	102-105	
	Multiplying and dividing numbers by powers of 10	NUMICON 6 (NPC) Calculating 2 Multiplying and dividing	Digital	Teacher	98-107	
			Print	Student	10-13	
	Finding a fraction of a whole number, including when the result is a mixed number or improper fraction (e.g. for $\frac{2}{5}$ of 42, $\frac{2}{5} \times 42 = 84/5 = 16 \frac{2}{5}$)	NUMICON 5 (NPC) Calculating 14 Calculating fractions of amounts Activity 5	Digital	Teacher	212-214	
			Print	Student	126-129	
		NUMICON 5 (NPC) Calculating 15 Calculating with fractions Activities 5 and 6	Digital	Teacher	219-221	
			Print	Student	141	
	Multiplying whole numbers by fractions, including by improper fractions, by mixed numbers, and by first converting to an improper fraction	NUMICON 5 (NPC) Calculating 15 Calculating with fractions Activities 5 and 6	Digital	Teacher	219-221	
			Print	Student	141	
	Multiplying fractions and representing the answer in its simplest form	NUMICON 6 (NPC) Calculating 12 Multiplying and dividing fractions	Digital	Teacher	185-189	
			Print	Student	82-85	
	Multiplying positive decimals (e.g. 2.3×45)	NUMICON 6 (NPC) Calculating 9 Written column methods of multiplying	Digital	Teacher	159-166	
			Print	Student	67-68	
Finding a whole amount when given a fraction, including when the whole set is a mixed number or improper fraction (e.g. if 8 is $\frac{3}{5}$ of a set, $8 \times \frac{5}{3} = 13 \frac{1}{3}$)	NUMICON 5 (NPC) Calculating 14 Calculating fractions of amounts	Digital	Teacher	209-214		
		Print	Student	126-129		
	NUMICON 5 (NPC) Calculating 15 Calculating with fractions	Digital	Teacher	215-221		
		Print	Student	141		
Finding percentages of whole numbers	NUMICON 5 (NPC) Calculating 11 Percentages	Digital	Teacher	192-198	Activities 4b and 4c in digital eBook and printable pack	
		Print	Student	94-97		
	NUMICON 6 (NPC) Calculating 5 Percentages	Digital	Teacher	126-134		
		Print	Student	34-37		

Number: rational number	Finding the whole (100%) when given a percentage (e.g. 3% is 27)	NUMICON 5 (NPC) Calculating 11 Percentages	Digital	Teacher	192-198	
			Print	Student	94-97	
		NUMICON 6 (NPC) Calculating 5 Percentages	Digital	Teacher	126-134	
			Print	Student	34-37	
	Dividing a quantity into two parts, given the part:part or part:whole ratio	NUMICON 6 (NPC) Calculating 7 Ratio & proportion Activity 2	Digital	Teacher	145-147, 151	
			Print	Student	46-47	
Expressing the division of quantity into two parts as a ratio	NUMICON 6 (NPC) Calculating 7 Ratio & proportion	Digital	Teacher	143-151		
		Print	Student	46-49		
Number: financial maths	Creating and comparing weekly, monthly, and yearly finance plans (e.g. for saving plans, phone plans, budgets, and 'buy now, pay later' services)	NUMICON 6 (NPC) An Enterprise project	Digital	Teacher	238-240	
	Applying percentage discounts (e.g. a 35% discount on \$180 will give a new price of $\$180 - (0.35 \times \$180) = \$117$)	NUMICON 5 (NPC) Calculating 11 Percentages	Print	Teacher	192-198	
			Digital	Student	94-97	
		NUMICON 6 (NPC) Calculating 5 Percentages	Print	Teacher	126-134	
Digital	Student	34-37				
Algebra: equations and relationships	Forming and solving linear equations with rational solutions (e.g. $t + 7 = 6.5$, $5s + 9 = -18$)	NUMICON 6 (NPC) Pattern & Algebra 2 Exploring number sequences and relationships	Digital	Teacher	43-51	
			Print	Student	58-61	
		NUMICON 6 (NPC) Pattern & Algebra 4 Using symbols and letters for variables and unknowns Activity 2	Digital	Teacher	63-64, 71	
			Print	Student	102-105	
	Forming and solving linear inequalities and representing the solution on a number line (e.g. $t - 3 \geq -5$)					Not in Numicon Resource*
	Using substitution to find the value of an expression or formula (e.g. calculating $w+12$ given $w=4$)	NUMICON 6 (NPC) Pattern & Algebra 3 Using algebra to solve problems	Digital	Teacher	52-60	
			Print	Student	86-89	
	Rearranging formulae using multiple steps and substitution to find an unknown value (e.g. making a the subject of $A=1/2(a+b)$)	NUMICON 6 (NPC) Pattern & Algebra 4 Using symbols and letters for variables and unknowns	Digital	Teacher	61-70	
Print			Student	102-105		

* Supports are in development for 'Practices' that are not currently included in existing Ministry-funded maths resources

Algebra: equations and relationships	Simplifying algebraic expressions involving sums, products, differences, and single brackets, and collecting like terms (e.g. $2(x+3)+1=2x+6+1=2x+7$)	NUMICON 6 (NPC) Pattern & Algebra 4 Using symbols and letters for variables and unknowns Activity 7	Digital	Teacher	3 71	Extra activity in digital eBook and printable pack
	Factorising simple algebraic expressions (e.g. $5x-35=5(x-7)$)					Not in Numicon Resource*
	Using tables, graphs in the coordinate plane, and diagrams to recognise the relationship between the ordinal position and its corresponding element in a linear pattern, develop a rule for the pattern in words, and make conjectures about further elements in the pattern					Not in Numicon Resource*
	Investigating the patterns of triangular numbers, square numbers, and cube numbers, extending the patterns, creating tables of values, and plotting the values on the coordinate plane	NUMICON 5 (NPC) Pattern & Algebra 4 Looking for patterns and generalizing	Digital	Teacher	62-69	
			Print	Student	108, 109	
		NUMICON 5 (GMS) Measurement 4 Estimating volume and capacity Activity 3	Digital	Teacher	88-89, 97	
			Print	Student		
Identifying and plotting points in the four quadrants of the coordinate plane, using ordered pairs and values from a table	NUMICON 6 (GMS) Geometry 3 Transformations in the four quadrants	Digital	Teacher	43-51		
		Print	Student	98-101		
Identifying the constant increase or decrease in a linear pattern, using variables and algebraic notation to represent the rule in an equation, and using the equation to make conjectures	NUMICON 5 (NPC) Pattern & Algebra 4 Looking for patterns and generalizing	Digital	Teacher	62-69		
		Print	Student	107		
Measurement: measuring	Estimating and measuring length, area, volume, capacity, mass (weight), temperature, time, and angle, using appropriate units	NUMICON 6 (GMS) Measurement 4 Volume and scaling	Digital	Teacher	26-34	
			Print	Student	14-17	
	Calculating the area of a parallelogram and a trapezium	NUMICON 6 (GMS) Measurement 2 Areas of 2D shapes	Digital	Teacher	65-74	
			Print	Student	50-53	
	Calculating the area of a shape, given some lengths and its perimeter, and vice versa	NUMICON 5 (GMS) Measurement 3 Calculating area and perimeter	Digital	Teacher	78-85	
			Print	Student	110-113	
		NUMICON 5 (GMS) Measurement 5 Working with area and perimeter	Digital	Teacher	98-103	
			Print	Student	130-133	
NUMICON 6 (GMS) Measurement 2 Areas of 2D shapes	Digital	Teacher	65-74			
	Print	Student	50-53			

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Measurement: measuring	Calculating lengths of quadrilaterals, given their area and other sufficient information	NUMICON 5 (GMS) Measurement 3 Calculating area and perimeter	Digital	Teacher	78-85	
			Print	Student	110-113	
	Converting between metric units of area (mm ² , cm ² , m ² , and km ²) and volume (mm ³ , cm ³ and m ³)	NUMICON 5 (NPC) Calculating 10 Proportion and ratio Activity 5	Digital	Teacher	190-191	
			Print	Student	91, 93	
		NUMICON 5 (GMS) Measurement 1 Metric and non-metric units Activity 1	Digital	Teacher	55-56, 63	
			Print	Student	70	
	Converting between different volume units (cm ³ , m ³ , mL, L)	NUMICON 6 (GMS) Measurement 4 Volume and scaling	Digital	Teacher	81-92	
			Print	Student	74-77	
	Read, interpret, and use timetables, charts and results that present information about duration.	NUMICON 5 (GMS) Measurement 2 Interpreting charts and graphs Activities 4 and 5	Digital	Teacher	70-73, 76	
			Print	Student	99-100	
	Convert times to a given unit (e.g. hours and minutes to minutes)	NUMICON 5 (GMS) Measurement 7 Solving problems involving time, money and measures Activity 2	Digital	Teacher	115-116, 121	
			Print	Student	146	
	Calculating the volume of composite figures made up of cubes, rectangular prisms, and/or triangular prisms	NUMICON 6 (GMS) Measurement 4 Volume and scaling	Digital	Teacher	81-92	
			Print	Student	74-77	
Calculating the volume of triangular prisms	NUMICON 6 (GMS) Measurement 4 Volume and scaling Activity 1	Digital	Teacher	82-83, 91, 92		
		Print	Student	74		
Geometry: shapes	Identifying and describing the parts of a circle: the radius, diameter, and circumference	NUMICON 6 (GMS) Geometry 2 Circles	Digital	Teacher	35-42	
			Print	Student	90-93	
Geometry: spatial reasoning	Transforming 2D shapes on the coordinate plane, including composite shapes, by a combination of translations, reflections, rotations, and scaling by any factor	NUMICON 6 (GMS) Geometry 3 Transformations in the four quadrants Activities 1-4	Digital	Teacher	43 - 51	
			Print	Student	98-101	
	Proving that the interior angle sum of a triangle is 180°, and generalising a rule for the interior angle sum and exterior angles for any polygon	NUMICON 5 (GMS) Geometry 3 Exploring angles Focus Activities 1 - 4	Digital	Teacher	44- 52	
			Print	Student	86-89	
		NUMICON 6 (GMS) Geometry 1 2D shapes and angles Activity 4	Digital	Teacher	31-32, 34	
			Print	Student	38-40	

Geometry: spatial reasoning	Reasoning about unknown angles in situations involving internal and external angles of polygons	NUMICON 6 (GMS) Geometry 1 2D shapes and angles Activity 5	Digital	Teacher	32	Polygons and exterior angles not covered	
			Print	Student	41		
Geometry: pathways	Using map scales, compass points, distance, and turn to interpret and communicate positions and pathways in coordinate systems and grid reference systems	NUMICON 4 (GMS) Geometry 4 Reading and plotting positions using coordinates	Digital	Teacher	52-61	Activities 2b and 3b in digital eBook	
			Print	Student	118-121		
		NUMICON 6 (GMS) Geometry 3 Transformations in the four quadrants	Digital	Teacher	43-51		
			Print	Student	98-101		
		NUMICON 5 (GMS) Geometry 1 Measuring angles Focus Activities 4, 5	Digital	Teacher	26 - 34		
			Print	Student	16		
Statistics: Developing knowledge from data	Planning and collecting data in order to respond to a statistical question (e.g. Are our feet the same length?)	NUMICON 6 (GMS) Measurement 1 Statistics, charts and graphs	Digital	Teacher	53-64		
			Print	Student	14-17		
		NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations Activity 7	Digital	Teacher	114-115		S&P1 is eBook and printable pack
			Print	Student	14-16		
	Calculating the mean, median, and mode for numerical data	NUMICON 6 (GMS) Measurement 1 Statistics, charts and graphs	Digital	Teacher	53-64		
			Print	Student	14-16		
	Calculating the range for numerical data	Numicon 5 (GMS) Statistics and Probability 1 Statistical investigations and data visualizations Activity 5	Digital	Teacher	127, 128, 130	S&P1 is eBook and printable pack	
			Print	Student	14-16		
Statistics: Visualisation of data	For a given set of data, choosing and constructing an appropriate data visualisation according to the data type (e.g. a dot plot, bar graph, time-series graph)	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack	
			Print	Student	14-16		
	Noticing and explaining outliers in a given set of data	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack	

Statistics: Interpretation of data	Responding to statistical questions by calculating an appropriate measure of central tendency and range for a variety of data tables and data visualisations	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
	Interpreting data visualisations, including those from contemporary media	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
	Identifying when a data visualisation cannot be interpreted accurately due to missing information	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
	Identifying outliers by eye and taking them into account when using range as a measure of spread	NUMICON 6 (GMS) Statistics and Probability 1 Using graphs for statistical investigations	Digital	Teacher	110-116	S&P1 is eBook and printable pack
Probability: Experimental Probability	Carrying out a chance experiment and calculating the experimental probability of each outcome	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations	Digital	Teacher	117-123	S&P2 is eBook and printable pack
	Comparing experimental probability (using at least 30 trials) to theoretical probability, and explaining why they differ and how increasing the number of trials reduces this difference	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations Activity 5	Digital	Teacher	117-123	S&P2 is eBook and printable pack
	Carrying out chance experiments of at least 100 trials and comparing the experimental probability of each individual outcome to its theoretical probability, in order to demonstrate the Law of Large Numbers	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations	Digital	Teacher	117-123	S&P2 is eBook and printable pack
Probability: Theoretical Probability	Calculating probabilities for events as decimals, fractions, and percentages	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations	Digital	Teacher	117-123	S&P2 is eBook and printable pack
	Comparing the likelihood of different events	NUMICON 5 (GMS) Statistics and Probability 2 Investigating probability	Digital	Teacher	131-137	S&P2 is eBook and printable pack
	Calculating probabilities for complementary events	NUMICON 6 (GMS) Statistics and Probability 2 Further probability investigations	Digital	Teacher	117-123	S&P2 is eBook and printable pack