

This table lists the main changes between Numicon 4 NPC and GMS printed books (ISBNs 978-0-19-848938-2 and 978-0-19-838986-6) and the Numicon 4 Teaching Resource Handbook for 2027, available as an eBook on Oxford OWL. Note that there may be minor changes to NZ activity contexts and money-based activities that are not specifically noted here.

New Numicon Teaching Handbook 4 Scope and Sequence (2027)			Notes for (old) Numicon 4 print book users
Strand and Activity Group Number	Activity Group Title	Focus Activities	
Getting Started	Getting started with apparatus and imagery	1. What maths can you show with Numicon Shapes? 2. What maths can you show with number rods? 3. Knowing the Numicon Shape patterns 4. Describing relationships between Numicon Shapes or number rods 5. Covering the board with Numicon Shapes 6. Supporting calculating with Numicon Shapes or number rods 7. What maths can you show with base-ten apparatus?	Activity Group previously called: 'Getting started with Number, Pattern and Calculating 4' No other changes.
Calculating 1	Using adding and subtracting facts and understanding inverse relationships	1. Using adding and subtracting facts of 10 with larger multiples of 10 2. Strategies for finding missing numbers 3. Using number pairs that total 100 to explore inverse relationships 4. Using adding and subtracting facts to work out change in money problems 5. Using adding and subtracting facts to 1000 in capacity problems 6. Using adding and subtracting facts to 1000 in problems involving mass 7. Using adding and subtracting in problem-solving activities	Minor content change: decimal notation for money removed. Money changed to NZ dollars.

Numbers and the Number System 1	Understanding place value in 4-digit numbers	1. Estimating beyond 100 2. Making a 0–1000 number line 3. Visualizing numbers to 1000 4. Exploring quantity value with a counters game 5. Making connections between quantity and column values 6. Exploring place value with masses 7. Exploring number systems used by other cultures	No change.
Pattern and Algebra 1	Exploring sequences and number patterns	1. Making sequences of multiples with number rods and Numicon Shapes 2. Exploring patterns in sequences of multiples 3. Comparing sequences of multiples and looking for patterns 4. Making sequences using multiples of 10 5. Exploring other sequences with number rods 6. Using number rods to find missing information in sequences with constant differences 7. Sequences in measuring problems	No change.
Numbers and the Number System 2	Ordering and comparing numbers to 1000 and beyond	1. Writing numbers in a range 2. Ordering 4-digit numbers within an historical context 3. Finding pages in a book 4. Playing a place value domino game 5. Narrowing the range 6. Finding numbers within a range	No change.
Calculating 2	Strategies for bridging when adding and subtracting	1. Bridging multiples of 10 when adding 2. Bridging multiples of 10 when subtracting 3. Bridging through multiples of 10 when adding 2-digit numbers 4. Bridging through multiples of 10 when subtracting 2-digit numbers 5. Bridging through 100 when adding 6. Bridging through 100 when subtracting	No change.

Numbers and the Number System 3	Estimating and rounding	1. Round amounts and approximations in everyday use 2. Measuring to the nearest 10 3. Estimating to the nearest metre or the nearest 100 4. Rounding to the nearest metre 5. Rounding to the nearest 1000 6. Rounding in other contexts 7. Rounding calculations	No change.
Geometry 1	Classifying triangles and quadrilaterals and visualizing 3D shapes	1. Classifying and naming types of triangle 2. Classifying and naming types of quadrilateral 3. Making quadrilaterals with triangles 4. Sorting and classifying triangles and quadrilaterals 5. Identifying and describing 3D shapes and 2D representations 6. Drawing 3D shapes from different angles	Activity group previously called: 'Classifying triangles and quadrilaterals' New content added: 3D shapes; focus activities 5 and 6.
Calculating 3	Developing fluency with mental adding strategies	1. Adding several multiples of 10 2. Using a partitioning strategy to add 2- or 3-digit numbers 3. Adding by rounding and adjusting 4. Adjusting adding sentences – non-computational reasoning 5. Adding 2-digit doubles 6. Choosing strategies for adding 2-digit numbers 7. Finding the total of items in a list	Minor content change: decimal notation for money removed. Money changed to NZ dollars.
Calculating 4	Developing fluency with mental subtracting strategies	1. Exploring 'difference' and 'take away' structures with multiples of 10 2. Looking for patterns in similar calculations 3. Subtracting by rounding and adjusting 4. Adjusting subtracting sentences – non-computational reasoning 5. More partitioning and subtracting using apparatus 6. Finding how much more or how much less 7. Choosing strategies for subtracting 2-digit numbers	Minor content change: decimal notation for money removed. Money changed to NZ dollars.

Calculating 5	Developing fluency with multiplying facts to 12×12	1. Exploring a multiplying context 2. Writing multiplying sentences 3. Making a table for multiplying 4. Using arrays to explore the commutative property of multiplying 5. Improving fluency with multiplying facts 6. Making connections between multiplying and finding the number of squares in a rectangular array 7. Using scaling in a recipe problem 8. Using a 'correspondence' structure to work out how many partners	Minor content change: references to area removed; instead of calculating the area of a rectangle using multiplying, children find the total number of squares in a rectangular array by multiplying.
Calculating 6	Developing fluency with dividing facts to 12×12	1. Exploring a dividing context 2. Writing dividing sentences 3. Finding two dividing facts from an array 4. Improving fluency with dividing facts 5. Using the inverse to derive missing numbers 6. Dividing in a correspondence context 7. Dividing when working with rectangular arrays 8. Dividing in a scaling problem	Minor content change: references to area removed; instead of calculating the missing dimension of a rectangle by dividing the area by the length/width, children find the missing dimension of a rectangular array by dividing the total number of squares by the length/width.
Pattern and Algebra 2	Exploring inverse relationships	1. Exploring inverse 2. Finding inverse facts 3. Exploring the inverse relationship between doubling and halving 4. Exploring the inverse relationship between multiplying and dividing 5. Turn around game 6. Working backwards to solve problems 7. Playing number detective 8. Checking calculations	Minor content change: decimal notation for money removed. Money changed to NZ dollars.

Calculating 7	Mental strategies for multiplying and dividing by 10 and 100	1. Multiplying by 10 in a scaling problem 2. Finding a rule for multiplying by 10 3. Dividing multiples of 10 by 10 4. Making connections between multiplying by 10 and place value 5. Making connections between dividing by 10 and place value 6. Exploring connections between multiplying and dividing by 10 7. Multiplying and dividing by 100 8. Linking multiplying facts and place value	No change.
Geometry 2	Understanding reflective symmetry	1. Symmetry, reflection and balance 2. Creating a symmetrical pattern with a non-vertical line of symmetry 3. Matching a shape with its reflection, rotation and translation 4. Investigating lines of symmetry in triangles 5. Investigating lines of symmetry in quadrilaterals 6. Investigating lines of symmetry in regular polygons and circles 7. Completing symmetrical patterns and shapes	New content added: matching a shape with its reflection, rotation and translation; focus activity 3.
Numbers and the Number System 4	Fractions and recognizing part-whole relationships	1. Generalizing about halves and quarters 2. Fractions equivalent to a half 3. Comparing fractions with different numerators and the same denominators 4. Comparing unit fractions with different denominators 5. Adding and subtracting halves and quarters 6. Adding and subtracting fractions beyond 1	Numbers and the Number System 4: Introducing negative numbers, has been moved to Numicon 5. This Activity Group is now Numbers and the Number System 4, and all subsequent Numbers and the Number System Activity Groups have been renumbered.

Calculating 8	Developing fluency with the column method of adding	1. Knowing when to use the column method 2. Exploring grouping or regrouping in the column method 3. Adding 3- and 4-digit numbers using the column method 4. Developing fluency and accuracy with the column method 5. A context for adding three 3-digit numbers 6. Solving measuring problems involving adding 7. Exploring the column method and money	Minor content change: decimal notation for money removed. Money change to NZ dollars.
Calculating 9	Developing fluency with the column method of subtracting	1. Knowing when to use a written method 2. Using the column method for subtracting 3. Using the column method for subtracting and redistributing hundreds and tens 4. Improving fluency with column subtracting with 3- or 4-digit numbers 5. Exploring the column method and money 6. Using subtracting methods to compare measures	No change.
Geometry 3	Investigating angles in shapes	1. Investigating types of angle in polygons 2. Angles in regular polygons 3. Investigating angles in a triangle 4. Investigating angles in tessellations 5. Estimating angles by comparing them to benchmark angles using degrees	New content added: measurement of angles in degrees (90, 180 and 360 only) and estimating and comparing angles in relation to those benchmarks; new focus activity 5.
Numbers and the Number System 5	Introducing decimal fractions	1. Introducing decimals through measuring 2. Reading scales 3. Making connections with fractions on a number line 4. Introducing decimal notation 5. Representing decimal fractions with Numicon Shapes 6. Representing decimal fractions using place value cards and base-ten apparatus 7. Dividing 1- and 2-digit numbers by 10 to make decimals 8. Multiplying decimals by 10 9. Comparing decimal quantities 10. Ordering decimals in a list	Formerly NNS6. New content added: dividing 1- and 2-digit numbers by 10, and multiplying O.t numbers by 10; focus activities 7 and 8. Adding and subtracting decimals; focus activities 12 and 13.

		11. Rounding decimals 12. Adding decimals to one decimal place without bridging 13. Subtracting decimals to one decimal place without bridging	
Pattern and Algebra 3	Exploring 'equals' in balancing number sentences	1. Using symbols to show inequalities 2. Exploring balancing number sentences 3. Finding missing numbers in balancing number sentences 4. Solving problems where shapes stand for unknown numbers 5. Exploring equivalence in subtracting sentences 6. Using number rods to explore equivalence 7. Introducing recording with brackets 8. Exploring the associative property of multiplying	No change.
Calculating 10	Exploring the distributive property and developing written methods of multiplying	1. A doubling strategy for multiplying 2. More doubling strategies for multiplying 3. Multiplying in parts using the distributive property 4. Working out multiplying facts using the distributive property 5. Exploring the short written method of multiplying with teen numbers 6. Forming and solving true or false number sentences using all operations	New content added: forming and solving true or false number sentences; focus activity 6
Calculating 11	Using multiplying facts to solve dividing problems	1. A halving strategy for dividing 2. Using a halving strategy with dividing problems in real-life contexts 3. Using multiplying facts as a strategy for dividing 4. Using the short written method of dividing 5. Finding fractions of amounts using multiplying and dividing facts 6. Identifying a whole set when given a fraction 7. Working with remainders in problems	New content added: identifying a whole set when given a fraction; focus activity 6.

Calculating 12	Developing fluency with the short written method of multiplying	1. Multiplying in parts 2. Developing fluency with the short written method of multiplying 3. A context for multiplying $TO \times O$ 4. Multiplying in a measuring context introducing $HTO \times O$ 5. Multiplying in a money context using the short written method of multiplying 6. Developing fluency and accuracy with the short written method of multiplying	Minor content change: mention of factors removed. Money changed to NZ dollars.
Calculating 13	Developing fluency with the short written method of dividing	1. Uniting the 'sharing' and 'grouping' structures for dividing and deciding when to use a written method 2. Developing fluency with the short written method of dividing 3. Dividing in a measuring context introducing $HTO \div O$ 4. Dividing in a money context using the short written method of dividing 5. Developing fluency and accuracy with the short written method of dividing	Minor content change: decimal notation for money removed. Money changed to NZ dollars. Mention of factors removed. Vocabulary change from HTU to HTO.
Calculating 14	Solving problems involving more than one step	1. Adding and finding differences 2. Adding and dividing 3. Multiplying and adding 4. Subtracting and dividing	Minor content change: decimal notation for money removed. Money changed to NZ dollars.
Measurement 1	Finding times and durations, and using the 24-hour clock	1. Calculating elapsed time and using a stopwatch 2. Creating a timetable 3. Showing duration and time on a timeline 4. Converting between days, hours, minutes and seconds 5. Solving problems involving time and duration 6. Introducing the 24-hour clock 7. Reading timetables and planning a journey	Content removed: working with time graphs; was focus activity 8.

Pattern and Algebra 4	Looking for growing patterns in problem solving	1. Making growing pictures with Numicon Shapes 2. Exploring growing patterns in problem solving 3. Exploring growing number patterns 4. Exploring patterns with growing differences 5. Exploring doubling patterns in problems 6. Following rules to write doubling sequences	Pattern and Algebra 4: Exploring multiples and factors, has been moved to Numicon 5. This Activity Group is now Pattern and Algebra 4, and all subsequent Pattern and Algebra Activity Groups have been renumbered.
Geometry 4	Reading and plotting positions using coordinates	1. Identifying coordinates and plotting points on a grid 2. Describing, drawing and using movement on a coordinate grid 3. Creating and using an algorithm for generating a pattern or pathway 4. Plotting and drawing shapes on a coordinate grid 5. Investigating schematic, topographical and digital maps 6. Symmetry and coordinates	New content added: creating and using an algorithm for generating a pattern or pathway; focus activity 3. Investigating schematic, topographical and digital maps; focus activity 5.
Numbers and the Number System 6	Exploring equivalence in fractions and introducing proportion	1. Introducing the term 'proportion' 2. Using proportional language to describe equivalences 3. Making fraction walls with number rods 4. Recognizing equivalence and simplifying fractions with Numicon Shapes 5. Exploring tenths	Formerly NNS7. Minor content changes: mention of factors removed. Hundredths removed.
Statistics and Probability 1	Collecting, visualizing and interpreting data	1. Collecting data about temperature 2. Interpreting and creating dot plots 3. Interpreting and creating bar graphs 4. How far can you jump? 5. Carrying out an investigation	New activity group.

Measurement 2	Calculating with money amounts	1. Counting in multiples of 10c and 100c 2. Counting in multiples of 20c and 50c to \$1 3. Counting in multiples of 10c, 20c and 50c beyond \$1 4. Finding coin totals 5. Making amounts using different combinations of coins and notes 6. Calculating the total cost of items and giving change 7. Fundraising for charity 8. Ordering money amounts	Large-scale changes: new and changed activities to fit NZ contexts using NZ money.
Measurement 3	Understanding and using units of length and distance	1. Measuring distance in whole metres 2. Measuring distance in metres using decimal notation with tenths 3. Measuring and calculating with distances 4. Recognizing equal distances 5. Presenting distance data in a bar graph 6. Introducing kilometres	Minor content change: hundredths removed; decimal notation with tenths added to focus activity 2.
Measurement 4	Understanding and using units of mass	1. Calculating with mass 2. Problem solving and calculating with mass 3. Measuring mass in kilograms using decimal notation with tenths 4. Solving problems involving mass	Minor content change: hundredths removed; decimal notation with tenths added to focus activity 3.
Measurement 5	Understanding and using units of capacity and volume	1. Calculating with litres and millilitres 2. Converting between millilitres, litres and millilitres, and litres 3. Problem solving with litres and millilitres 4. More problem solving with litres and millilitres 5. Measuring the volumes of cuboids using 3D blocks of equal size	New content added: measuring volumes of cuboids by filling them with equal-sized 3D blocks; focus activity 5. Minor content change: hundredths removed.
Pattern and Algebra 5	Solving problems and puzzles systematically	1. Working systematically to find all the possibilities 2. Finding all the possible scores 3. Finding the missing piece 4. Breaking a secret code by finding all the possibilities 5. Solving a problem by eliminating possibilities	Formerly Pattern and Algebra 6. No other changes.

Measurement 6	Understanding perimeter and area	1. Calculating the perimeter of common polygons 2. Calculating the perimeter of composite rectilinear shapes 3. Investigating polygons with the same perimeter 4. Finding the area of 2D shapes 5. Calculating the area of an oblong 6. Investigating the perimeter of shapes with the same area	No change.
Pattern and Algebra 6	Exploring general rules, reasoning and logic	1. Finding a general rule to total a sequence of consecutive numbers, beginning with 1 2. Finding a general rule for making crosses with number rods 3. Reasoning about odd and even multiples 4. Reasoning about general statements 5. Using clues to solve logic problems	Formerly Pattern and Algebra 7. Removed focus activity 6: Using trial and improvement methods and clues in problem solving.