Using Maths Aotearoa to support the implementation of the October 2025 New Zealand Maths Curriculum

While the curriculum statements are the knowledge students need to acquire, the mathematical processes are the ways in which the knowledge is taught. Activities within Maths Aoteroa provide the opportunities for: Investigating situations, representing situations, connecting situations, generalising findings, exploring and justifying findings.

Year 4

Maths Aotearoa Book 2B	Knowledge: The facts, concepts, principles and theories to teach
Unit 1 Chapter 4 Numbers to 999 ***For year 4 another column has been added.*** • Read write and order numbers to 1000 • Expand numbers into hundreds, tens and ones • Know one more/less and ten more/less than any 3 digit number • Know the number of groups of ten in any 3 digit number **Unit 3 Addition & Subtraction** **Chapter 9 Rounding numbers** ***For year 4 another column has been added.*** • Round a three digit number to the closest hundred • Round a three digit number to the closest ten • Know the position of a number in the sequence of non consecutive numbers ***Rounding is used for estimation throughout Maths Aotearoa***	**Number Structures** • Whole numbers can be represented in the base 10 number system, where each digit has a place value 10 times that of the digit on the right. • Each digit's value depends both on its position (e.g. the tens position) and the numeral in the position. Zero is used as a placeholder. • Rounding can support predicting or estimating the result of a calculation. • Rounding is based on identifying the nearest place value or unit (ten, hundred, thousand) for a given number; a number line supports this. ***This content is to be taught across Years 4 to 6.***

Maths Aotearoa Book 2B **Unit 5 Arithmetic Operations** **Chapter 14 Focus on Division** • Understand divided between, divided into, and divided by • See the connection between division and fractions **Chapter 15 Multiplication and Division** • Recall multipication & division facts • Write an equation for a multiplication or division problem • Create a problem for a given equation • Explore square numbers **Chapter 17 The Four Operations** • Identify the appropriate operation to solve a word problem • Use inverse operations • Use an equation to communicate solution method • Read and solve more complex problems. **Maths Aotearoa Book 3A** **Unit 1 Properties of Multiplication** **Chapter 1 Multiply and Divide by 6** • Derive the multiplication facts (distributive property or doubling) • Recall of six times table • Solve multiplication & division word problems **Chapter 2 Multiply and divide by 8** • Derive the multiplication facts (distributive property or doubling) • Recall of eight times table • Solve multiplication and division word problems **Chapter 3 Multipliy and divide by 7** • Derive the multiplication facts (distributive property) • Recall of seven times table • Solve multiplication and division word problems • **Maths Aotearoa Book 3B** **Unit 1 Using properties of Multiplication** **Chapter 1 Multiplication Strategies** • Understand and use the properties of multiplication • Recall multiplication & division facts • Multiply a double digit number by a single digit	**Number Operations** • Addition and subtraction can be carried out mentally, using known facts, place value and partitioning, or column methods. • Standard written algorithms (e.g. column addition, column subtraction) rely on place value, regrouping, and renaming. ***This content is to be taught across Years 4 to 6.*** • Multiplication can be represented as repeated addition, scaling, or arrays, and larger numbers can be multiplied using an area model or column multiplication.

Maths Aotearoa Book 3A **Unit 2 Addition & Subtraction** **Chapter 4 Addition** • Extend knowledge of addition strategies for 3 digit numbers • Use a standard written (vertical) form for addition of 3 digit numbers • Make estimates for addition **Chapter 5 Subtraction** • Extend known subtraction strategies in 3 digit numbers • Expand a standard partition and convert from canonical to non-canonical form • Use a standard written (vertical) form for subtraction of 3 digit numbers • Make estimates for subtraction ***(extend to four digit numbers)***	
Maths Aotearoa Book 3A **Unit 3 Patterns & relationships** **Chapter 8 Fractions and Division** • Represent a proportion using fractions • Compare and order fractions on a number line • Use the denominator of a fraction as a divisor • Add and subtract fractions with the same denominator **Unit 4 Beginning Decimals** **Chapter 9 Measurement and the Decimal Point** • Know the relationship between metres and centimetre • Know the relationship between litres and millilitres • Know the relationship between grams and kilograms • Represent tenths using decimal notation **Chapter 10 Building Decimals** • Read and write decimal fractions • Represent tenths using manipulatives and make diagramatic representations • Give the number one tenth more or less than any number • Sequence and order one place decimals • Convert between fractional notation and decimal notation **Chapter 11 Adding and Subtracting with Tenths** • Round decimals to nearest whole number • Extend additive strategies to one place decimals • Understand and use basic facts repeated in each of the columns includes decimal columns	**Rational Numbers** • The base 10 number system continues past the ones column, to the right, to create decimals such as tenths. • Decimals are fractions that have powers of 10 as their denominators, and they can be written as numbers using a decimal point. • A decimal point marks the column immediately to the right of the ones column as the tenths column. • Tenths can be created by dividing whole numbers by 10 and can be expressed as fractions or decimals. • Improper fractions and mixed numbers are different representations of the same quantity. • Addition and subtraction of fractions with the same denominator follow the same principles as whole numbers and can result in improper fractions or whole numbers. • Scaling changes quantities proportionally, using multiplication and division.

Maths Aotearoa Book 2B **Unit 1 Addition & Subtraction** **Chapter 5 Addition & Subtraction with Money** • Combine notes and coins • Give change	**Financial Mathematics** • New Zealand currency is a decimal system of dollars made up of 100 cents.
Maths Aotearoa Book 2B **Unit 1 Addition & Subtraction** **Chapter 1 Balancing Equations (pages 5 - 8)** • Recognise the difference between relationship symbols (= < >) and operational symbols (+ - x ÷) • Balance equations using the equals symbol • Use relationship symbols < less than and > more than **Unit 5 Arithmetic Operations** **Chapter 16 Using Calculators** • Use a calculator to explore relationships between numbers • Use guess and check as a problem solving strategy • Use a table to look for patterns and relationships **Maths Aotearoa Book 3A** **Unit 3 Patterns & Relationships** **Chapter 7 Multiplication and Division** • Recognise patterns within and between multiplication tables • Graph multiplication tables and interpret the gradient	**Algebra** **Equations & relationships** • Numbers can be compared using 'greater than' (>), 'less than' (<), and equals (=). • Applying the same operation to both sides of a number sentence preserves the balance. • Growing patterns can increase or decrease by the addition or subtraction of a constant (arithmetically) or multiplication or division by a constant (geometrically). ***This content is to be taught across Years 4 and 5.***

Maths Aotearoa Book 2A **Chapter 26 Measuring Capacity & Volume** (p.171 & 172) • Measure volume by the repeat of the same unit • Know the standard unit of volume as the cubic centimetre **Maths Aotearoa Book 2B** **Unit 6: Chapter 18 Lines and Angles** • Know the static features of a right angle • Create a right angle measure • Explore the dynamic concept of an angle - it can grow larger or smaller by rotating one or both of its arms • Identify angles as more or less than a right angle **Unit 9: Chapter 24 Using a Ruler to Measure Length** • Find a benchmark for 1cm (most convenient is a body measurement) • Identify and measure the perimeter of shapes **Unit 10: Chapter 25 Measuring Mass** • Investigate measurement devices for mass • Find a benchmark for 1kg • Estimate mass as more or less than 1kg, 1/2 kg, 1/4kg **Unit 11: Chapter 26 Exploring Area** • Know the standard unit for measuring area is the square centimetre (cm^2) • Make connections between using arrays and measuring area. **Maths Aotearoa Book 2B** **Unit 12: Time** **Chapter 27 Units of Time** • Understand that time is not based on groups of 10 • The size of the unit can vary - months can have a different number of days • Begin to convert between units of time • Investigate the nature of time in the world around us - timezones, world clock, moon phases, Maramataka (The Maori Lunar Calendar) **Chapter 28 Telling the Time** • Know the function of each hand on an analogue clock • Read an analogue clock to the closest 5 minutes • Know the meaning of the numbers in a digital time display • Switch between analogue and digital time displays	**Measuring** • Different measurement tools and scales use different-sized units; the unit must be recorded with the measurement amount. ***This content is to be taught across Years 4 and 5.*** • Volume is a measure of regions in three-dimensional space. • The areas of rectangles (including squares) can be calculated by multiplication of side lengths. ***This content is to be taught across Years 4 and 5.*** • Angles are a measure of turn and can be measured using the unit of degrees; a full turn is 360 degrees, a half turn is 180 degrees, and a quarter turn is 90 degrees. • Rectangles and squares have four right angles. • A point in time is typically measured in hours and minutes past midnight. • Clocks relate seconds to minutes and minutes to hours according to a system based on 60. ***This content is to be taught across Years 4 and 5.***

Maths Aotearoa Book 2A
Unit 6 Geometric Shapes
Chapter 18 3-D Shapes
- Explore a wider range of 2D and 3D shapes
- Describe specific features of 3 dimensional shapes using increasing geometric language
- Use attributes to identify a shape

Chapter 19 Circles, Cones and Spheres
- Explore circles, cones and spheres
- Appreciate the importance of circles in our world

Unit 8 Giving Directions
Chapter 23 Viewpoints and Plans
- Visualise perspectives other than their own
- Create a simple plan of a 3 dimensional situation
- Interpret simple plans
- Give directions based on a simple plan

Maths Aotearoa Book 2B
Unit 6 Geometric Shapes
Chapter 19 Triangles
- Explore and name different sorts of triangles
- Introduce triangular and square based pyramids

Unit 7 Transformations
Chapter 21 Rotational Symmetry
- Recogise rotational symmetry in shapes and designs
- Use reflective and rotational symmetry in a design
- Use flips, slides and turns in a design

Chapter 22 Geometric Ideas
- Explore enlargements, reductions and distortions
- Explore simple flight paths

Unit 8 Position & Oreientation
Chapter 23 Giving Directions
- Give directions using the points of the compass Follow directions using a simple map
- Give directions using a simple map

Geometry
Shapes
- A regular polygon is a two-dimensional shape with all sides of equal length and all interior angles of equal measure.
- Circles have an infinite number of lines of symmetry.

Spatial Reasoning
- Shapes may appear different when viewed from a different perspective.
- A reflection is when a shape is flipped over a line, creating a mirror image.
- A translation is when a shape is slid from one place to another without being turned.
- A rotation is when a shape is turned around a fixed point.

This content is to be taught across Years 4 to 6.

Pathways
- An alphanumeric grid reference is a system that divides a map into labelled rows (letters) and columns (numbers), so that each square can be identified by combining a letter and a number (e.g. A1, B2).

This content is to be taught across Years 4 to 6.

Maths Aotearoa Book 2B **Unit 13 Working with Data** **Chapter 29 Sorting Data** • Use a table to sort information • Using a word document to create a table • Understand the need for headings • Interpreting a table to answer specific questions • Explore using a spreadsheet to create a table • Explore using a spreadsheet to manipulate the data • Use the statistical inquiry cycle to plan and carry out an investigation UnIt 5 Chapter 17 Mini Project: Off to the animal farm Unit 11 Chapter 26 MIni Project: Comparing Areas **Maths Aotearoa Book 3A** **Unit 12 Statistics** **Chapter 30 Collecting and Displaying Data** • Using dot plots & stem & leaf visualisations • Create visualisations from data collected	**Statistics** **Developing knowledge from data** • A variable is an attribute or measurement of the people or objects being studied: - categorical variables classify objects or individuals into groups - discrete numerical variables are counted - continuous numerical variables are measured. **Visualisation of data** • Data visualisations are representations of all available values for a variable showing the frequency for each value. • Data visualisations show patterns, trends, and variations. • Numerical data can be visualised with dot plots or bar graphs. • A good data visualisation includes, where appropriate: - a title that gives the purpose of the visualisation - variable(s) (e.g. labelled on the axis) - the group the data is from - units for a numerical variable - values or categories - frequency, with the scale starting at 0. **Interpretation of data** • Interpreting a data visualisation includes describing its variables and their units, the context for the data, and the visualisation's key features: - its shape (e.g. the number of peaks) - its middle group(s) (where the middle of the data lies) - its spread (how spread the data is from the minimum (lowest) value to the maximum (highest) value). ***This content is to be taught across Years 4 to 6.***