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.

During the Third Year

	Knowledge: The facts, concepts, principles and theories to teach
Maths Aotearoa Book 2A **Unit 2 Beginning Multiplication & Place Value** **Chapter 6 Beginning Multiplication** • Know about and recognise odd and even numbers • Investigate addition and subtraction rules with odd and even numbers • Know multiples of two are even numbers **Chapter 7 The Ten Times Table and Place Value** • Make connections between the tens times table and how numbers are written • Begin to understand the importance of zero to the number system **Unit 3 Addition, Subtraction & Place Value** **Chapter 9 Working with tens numbers** • Begin to see how the number system assists estimating and numeric reasoning • Consolidating addition and subtraction facts to 10 **Chapter 10 Adding and subtracting** • Use rounding to the closest decade to make a sensible estimate **Chapter 11 Using Tens to Add and Subtract** • Use add 10 subtract 1 to add 9 to any number • Use subtract 10 add 1 to subtract 9 from any number **Maths Aotearoa Book 2B** **Unit 1: Addition, Subtraction & Place Value** **Chapter 4 Numbers to 999** • 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** • 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	**Number Structure** • The whole numbers from 0 to 1000 form a sequence. • The base 10 number system is organised by place value (thousands, hundreds, tens, and ones for four-digit numbers). • The whole numbers from 0 to 1000 form a sequence. • The base 10 number system is organised by place value (thousands, hundreds, tens, and ones for four-digit numbers). • Rounding to the nearest 100 depends on the value of the 10s place; a number line supports this. • Numbers can be rounded to support estimation before calculating. • Sequences generated by counting can overlap (e.g. counting in 2s and counting in 5s overlap for numbers that are multiples of 2 and 5). • Counting in 3s produces alternating patterns of odd and even numbers. • Numbers ending in the digits 0, 2, 4, 6, and 8 are even and numbers ending in 1, 3, 5, 7, and 9 are odd. **This content is to be taught across the second and third years.**

Maths Aotearoa Book 2A **Unit 3 Addition & Subtraction** **Chapter 9 Working with tens numbers** • Building on the idea that basic facts are repeated in each of the columns **Unit 5 Addition & Subtraction** **Chapter 15 Addition without counting** • Explore additive patterns • Use addition facts and knowledge of decades for addition • **Chapter 16 Subtraction without counting** • Explore subtraction patterns • Use subtraction facts and knowledge of previous decade for subtraction. • Use complementary addition to solve difference problems **Maths Aotearoa Book 2B** **Unit 1: Addition, Subtraction & Place Value** **Chapter 2 Addition with 2 Digits** • Use standard partitioning to add two digit numbers • Use the closest decade when adding two digit numbers • Use compensation when adding two digit numbers **Chapter 3 Subtraction with 2 Digits** • Use standard partioning to subtract two digit numbers • Use difference as a subtraction strategy • **Unit 3 Addition & Subtraction** **Chapter 10 Addition with 3 Digits** • Use standard partitioning for addition (demonstrate recording in a vertical format) • Use the closest hundred and compensate for additionAddition & Subtraction • Make addends into easy to add numbers **Chapter 11 Subtraction with 3 Digits** • Use standard partition for subtraction (takeaway) • Explore closest hundred and compensate to subtract (difference)	**Number Operations** • Number facts can be derived from known facts using place value (e.g. 700+200=900 can be derived from 7+2=9) • Renaming (regrouping) is needed when adding or subtracting across place values. • Column methods for addition and subtraction align digits in numbers by their place values.

Maths Aotearoa Book 2A **Unit 2 Beginning Multiplication & Place Value** **Chapter 6 Beginning Multipication** • Connect knowledge of doubles to the two times table • Recall the two times table **Chapter 7 The Ten Times Table and Place Value** • Recall the ten times table **Chapter 8 Exploring the Five Times Table** • Begin to move from a repeated addition concept of multiplication to an array model of thinking • Know that multiplication is commutative • Recall the five times table **Maths Aotearoa Book 2B** **Unit 2 Multiplication & Division** **Chapter 6 Deriving Multiplication Facts** • Use an array and knowledge of the 2 x table to derive the 3x table • Use an array and knowledge of the 10 x table to derive the 9 times table • Explore patterns and relationships between x 3 and x 9 **Chapter 7 Doubling and Halving** • Recognise and use the relationship beteen x 2 and x 4 *(extend doubling to 8s)* **Chapter 8 Sharing or Grouping** • Use an array to find the equal share or equal group • Understand division facts as the inverse of multiplication facts	**Number Operations** • Multiplication can be completed by repeated addition, grouping, or using known facts, and represented using an array. • Division can be completed by equal sharing, grouping, repeated subtraction, or using known facts. • Dividing by zero is impossible.

Maths Aotearoa Book 2A
Unit 4 Understanding Fractions
Chapter 13 Halves and Quarters
- Know half is two equal parts to complete the whole
- Know quarter is four equal parts to complete the whole
- Know third is three equal parts to complete the whole
- Know fifth is five equal parts to make the whole
- Understand the denominator represents the number of equal parts to complete the whole
- Name common unit fractions
- Understand the whole is equal to 1

Chapter 14 Fractions of Numbers
- Find a unit fraction of a set of objects by equal sharing
- Connect knowledge of doubles with halves
- Find a quarter of a small number using doubles knowledge (half and half again)

Maths Aotearoa Book 2B
Unit 4: Understanding Fractions
Chapter 12 Fractions
- Recognise halves, quarters, thirds and fifths of a region
- Understand the word “whole” refers to one region
- Understand the size of the fractional part is dependent on the size of the whole
- Compare unit fractions (of the same size region)
- Recognise non unit fractions, including improper fractions (greater than 1) for halves and quarters
- Place halves and quarters on a number line (including greater than 1)
- Look for patterns and relationships between equivalent fractions

Chapter 13 Fractions of Numbers
- Understand the “whole” represents the total quantity in the group
- Beginning to see a connection between multiplication, equal sharing and fractions

Rational Numbers
- Fractions can represent parts of sets, regions, measurements, and points on a number line.
- A unit fraction represents one part of an equally divided whole. Its numerator is 1.
- For unit fractions, the larger the denominator, the smaller the fraction (e.g. 1/12<1/6).

- Fractions with the same denominator can be ordered by the size of the numerator.
- Equivalent fractions name the same quantity and can be identified by reasoning about equal parts (e.g. 3/6=1/2).
- There are many ways to write one whole (e.g. 2/2,3/3,4/4,6/6 are all equivalent to 1).

- When adding or subtracting fractions with the same denominator, the denominators remain unchanged, and the numerators are combined.
- Subtraction of fractions with the same denominator represents taking away parts of equal size.

- The relationship between part and whole is multiplicative, not additive.

Maths Aotearoa Book 2A **Unit 1: Addition, Subtraction & Place Value** **Chapter 5 Addition and Subtraction with Money** • Know the conventions for writing money values in dollars and cents using a decimal point • Use addition & subtraction in the context of money	**Financial Mathematics** New Zealand currency is a decimal system of dollars made up of 100 cents. Finding the total cost and giving change with money involves addition and subtraction.
Maths Aotearoa Book 2A **Unit 2 Beginning Multiplication & Place Value** **Chapter 8 Exploring the Five Times Table** • Explore the relationship between the ten times table and the five times table by doubling and halving • Look for patterns in multiplication tables **Unit 3 Addition & Subtraction** **Chapter 12 Number facts to 20** • Recognise recurring patterns in addition and subtraction **Unit 5 Addition & Subtraction** **Chapter 17 Using a calculator** • Use mathmatics sybols correctly ***Use relationship symbols < and > to compare numbers in classroom situations***	**Algebra** **Equations and Relationships** • Numbers can be compared using ‘greater than’ (>), ‘less than’ (<), and equals (=). **This content is to be taught across the second and third years** • A growing number pattern is a sequence of numbers that increase or decrease from one term to the next due to a consistent rule.

Maths Aotearoa Book 2A

Unit 8 Chapter 22 Giving Directions

- Turn themselves clockwise or anticlockwise

Unit 9: Chapter 24 Measuring Length

- Know standard units of length - metre (m), decimetre (dm) , centimetre (cm), millimetre (mm), kilometre (km)
- Estimate lengths
- Select an appropriate unit of measure
- Recognise parts of a unit as a fraction of a unit
- Use a ruler to measure lengths in centimetre

(Perimeter is not formally introduced until book 2B but there is no reason why it should not be talked about in measurement activities and measuring sides of polygons in centimetres as a practice activity for measuring reliably)

Unit 10: Chapter 25 Measuring Mass

- Know a unit of mass can be combined into another single unit to represent a repeat of single units (eg a 100g weight)
- Know standard units of mass - gram (g) and kilogram (kg)
- Estimate the mass of an object using a benchmark mass
- Use a combination of weights to measure mass
- Use balance scales

Unit 11:Chapter 26 Measuring Capacity and Volume

- Understand capacity and volume as measures of space
- Measure volume using the repeat of a single unit of volume with no gaps or overlaps
- Know standard units of capacity - litres (L) and millilitres (mL)
- Know standard units of volume cubic centimetre or centimetre cubed (cm^3)
- Estimate and measure using litres and millilitres
- Explore the meaning of volume as a measurement of space
- Measure volume using appropriate units (cubes)

Unit 12: Chapter 27 Measuring Time

- Begin to understand the cyclic nature of time
- Compare and order times using a time line
- Name and order days of the week from any starting point
- Name and order months of the year from any starting point
- Identify the start and finish point of an event
- Investigate different tools for measuring time

Chapter 28 Telling the Time

- Read o'clock, half past, quarter to and quarter past on an analogue clock
- Read the hours and minutes on a digital clock
- Make connections between the digital clock and the analogue clock (quarter past = 15 minutes etc.

Measuring

- Systems of measurement have a history; different cultures use different approaches (e.g. measurement in te ao Māori is based on the human body and natural relationships).

- Perimeter is the sum of the lengths of sides of a 2D shape.
- Area is the measure of a region's size on a surface.

- A turn is a rotation around a point.
- A turn can be directional and is described using clockwise (to the right) and anticlockwise (to the left).

This content is to be taught across the second and third years.

- Duration is the length of time between the start and end of an event.

This content is to be taught across the second and third years.

- There are 15 minutes in a quarter of an hour.
- There are 60 seconds in a minute.
- There are 24 hours in a day, 365 days in a year, and 366 days in a leap year.
- There are 52 weeks in a year.
- A leap year occurs every 4 years.
- Months are approximately four weeks long; the specific number of days in each month varies.
- Larger durations of time can be measured in decades (10 years), centuries (100 years), and millennia (1,000 years).

Maths Aotearoa Book 2A **Unit 7 Transformations** **Chapter 20 Reflective Symmetry** • Recognise reflective symmetry in everyday objects and geometric shapes • Create reflective symmetrical patterns • Understand terminology “lines of symmetry” • Explore shapes, patterns and objects with multiple lines of symmetry **Chapter 21 Tessellation** • Tessellate shapes through exploration with different shapes • Understand to tessellate requires no gaps or overlaps **Unit 8 Chapter 22 Giving Directions** • Identify left and right on themselves • Give directions using left and right **Maths Aotearoa Book 2B** **Unit 8 Position & Orientation** **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. **Spatial reasoning** • A line of symmetry is the line that divides a shape or an object into two equal and symmetrical parts. • Line symmetry is where one half of an object or shape is a mirror image of the other half, across a line of symmetry. **Pathways** • Directions such as forward, left, and right depend on the orientation of the observer. • Cardinal directions are the four principal points of a magnetic compass: north, east, south, and west.
Maths Aotearoa Book 2A **Unit 13 Working with Data** **Chapter 29 Gathering and Displaying Data** • Plan the collection of data to answer a question • Collect, record and sort data • Create a bar chart • Interpret a line graph • Understand the need for labels on a visual display • Answer questions based on the data **Chapter 30 Sorting Data** • Identify attributes and the absence of an identified attribute • Sort qualitative data using Venn diagrams • Sort qualitative data using Carroll diagrams • Sort qualitative data using yes/no tree diagrams *Unit 14: Chapter 31 What Chance is obselete as no probability in year 3*	**Statistics** **Developing knowledge from data** • A numerical variable in data is a number that is a measure or count **Visualisation of data** • Data visualisations are representations (including dot plots and bar graphs) of all available values for a variable that show the frequency for each value. • In a bar graph, each bar corresponds to a category or number, and the height of the bar (for a vertical chart) or the length (for a horizontal chart) directly corresponds to the frequency of the category or number. **Interpretation of data** • Data visualisations are representations that help reveal the story of a set of data. **This content is to be taught across the first three years.**