



Lesson Overview Year 4 • Number and Fractions

Strand	Unit number	Unit Name	Lesson number	Lesson name	The New Zealand Curriculum	Lesson outcomes <i>Students will be able to:</i>
Number	4	Numbers to 100 000	1	Numbers to 100 000	5.Number.Number structure	Read and write multi-digit numbers in numerals, number names, and expanded form.
			2	Place Value	5.Number.Number structure	Recognise that a digit in one place represents ten times the value of the place to its right.
			3	Comparing Digits	5.Number.Number structure	Use place value understanding to compare digits in numbers.
			4	Comparing Numbers	5.Number.Number structure	Compare and order multi-digit numbers based on the digits in each place.
	5	Numbers and Decimals	1	Rounding Numbers	5.Number.Operations	Use place value understanding to round multi-digit whole numbers to any place value.
			2	Decimal Places	5.Number.Rational numbers	Use division by 10 to extend the place-value system into decimal places.
			3	Compare Decimals	5.Number.Rational numbers	Compare two decimals to hundredths by reasoning about their size using place value.
			4	Money in Decimals	5.Number.Financial mathematics	Represent amounts of money in decimal form with two decimal places and use the symbols \$ and c.
Fractions	2	Counting Fractions	1	Mixed Numerals	5.Number.Rational numbers	Identify mixed numerals and show how they are composed.
			2	Fraction Number Lines	5.Number.Rational numbers	Count, locate and represent fractions, including mixed numerals, on a number line.
			3	Compare Fractions: Draw a picture	5.Number.Rational numbers	Compare fractions with different numerators and denominators by drawing fraction shapes and arrays.
			4	Compare Fractions: Diagrams	5.Number.Rational numbers	Compare fractions with different numerators and denominators using a fraction wall or number line.
	3	Equivalent Fractions	1	Equivalent Fractions: Draw a diagram	5.Number.Rational numbers	Use shapes, fraction strips and number lines to find and represent equivalent fractions.
			2	Fraction Families	5.Number.Rational numbers	Investigate equivalent fractions by exploring families of fractions on a fraction wall.
			3	Convert Fractions: Count the Parts	5.Number.Rational numbers	Convert between mixed numbers and fractions using diagrams and decomposition.
	4	Decimal Fractions	1	Tenths and Hundredths	5.Number.Rational numbers	Express a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100.
			2	Converting Fractions and Decimals	5.Number.Rational numbers	Write fractions with denominators 10 or 100 as decimals, and vice versa.
			3	Decimal Number Lines	5.Number.Rational numbers	Make connections between 10ths, 100ths and their equivalent decimals on the number line.
			4	Equivalent Fractions and Decimals	5.Number.Rational numbers	Find equivalent decimals for halves, quarters and fifths by converting them to 10ths and 100ths.



Lesson Overview Year 4 • Operations

Strand	Unit number	Unit Name	Lesson number	Lesson name	The New Zealand Curriculum	Lesson outcomes <i>Students will be able to:</i>
Operations	7	Addition and Subtraction Strategies 2	1	Addition Strategies	5.Number.Operations	Use place value understanding to assist calculations.
			2	Subtraction Strategies	5.Number.Operations	Use place value understanding and the inverse operation to assist calculations.
			3	Making Calculations Easier	5.Number.Operations	Use rounding and an understanding of difference to assist calculations.
			4	Finding Unknown Quantities	5.Number.Operations 5.Algebra.Equations and relationships	Find unknown quantities in number sentences involving addition and subtraction.
	8	Addition and Subtraction Algorithms	1	Algorithms: Addition	5.Number.Operations	Fluently add multi-digit whole numbers using the standard algorithm.
			2	Algorithms: Subtraction	5.Number.Operations	Fluently subtract multi-digit whole numbers using the standard algorithm.
			3	Word Problems: Add & Subtract	5.Number.Operations	Solve multi-step word problems involving addition and subtraction of whole numbers.
	9	Multiplication Thinking	1	The Times Tables	5.Number.Operations	Recall multiplication facts up to 10×10 .
			2	Factors	5.Number.Number structure	Identify and describe factors of whole numbers from 1 to 100.
			3	Multiples within 100	5.Number.Operations	Investigate multiples within the times tables.
			4	Equivalent Multiplication Facts	5.Number.Operations 5.Algebra.Equations and relationships	Recall multiplication facts up to 10×10 to find equations with the same answer.
	10	Multiplication Strategies	1	Multiplication by 10, 100 and 1000	5.Number.Operations	Multiply using strategies based on place value.
			2	Mental Maths: Multiplication 1	5.Number.Operations	Multiply using strategies based on the commutative and associative properties of multiplication.
			3	Mental Maths: Multiplication 2	5.Number.Operations	Multiply using a strategy based on the distributive property of multiplication.
	11	Division Strategies	1	Division Facts	5.Number.Operations	Recall division facts related to the multiplication facts up to 10×10 .
			2	Mental Maths: Division Strategies 1	5.Number.Operations	Find quotients using the inverse relationship between multiplication and division.
			3	Mental Maths: Division Strategies 2	5.Number.Operations	Find quotients using the distributive property of division.
	12	Operations with Odd and Even Numbers	1	Odds and Evens in Addition and Subtraction	5.Number.Operations	Investigate the properties of odd and even numbers in addition and subtraction equations.
			2	Odds and Evens in Multiplication	5.Number.Operations	Investigate the properties of odd and even numbers in multiplication equations.
			3	Doubling	5.Number.Operations	Use doubling as a mental strategy for multiplication by 2, 4 and 8.
			4	Halving	5.Number.Operations	Use halving as a mental strategy for division by 2, 4 and 8 where there is no remainder.
	13	Multiplication Patterns	1	Multiplication Number Sequences	5.Number.Operations 5.Algebra.Equations and relationships	Explore and describe number patterns resulting from performing multiplication.
			2	Multiplication Patterns in a 100 Square	5.Number.Operations 5.Algebra.Equations and relationships	Explore and describe patterns of multiples in a 100 square.
			3	The Multiplication Chart	5.Number.Operations 5.Algebra.Equations and relationships	Find answers and explore patterns in the multiplication chart.
	14	Word Problems	1	Word Problems: Multiplication	5.Number..Operations	Solve multi-step word problems involving multiplication of whole numbers.
			2	Word Problems: Division	5.Number..Operations	Solve multi-step word problems involving division of whole numbers.
			3	Word Problems: Money	5.Number.Financial mathematics	Solve problems involving purchases and the calculation of change to the nearest five cents.



Lesson Overview Year 4 • Geometry

Strand	Unit number	Unit Name	Lesson number	Lesson name	The New Zealand Curriculum	Lesson outcomes <i>Students will be able to:</i>
Geometry	5	Shapes and Objects	1	Combining 2D Shapes	5.Geometry.Shapes	Put 2D shapes together to make composite shapes.
			2	Splitting 2D Shapes	5.Geometry.Shapes	Split 2D shapes into smaller shapes.
			3	Classify 3D Objects	5.Geometry.Shapes	Classify 3D figures based on curved surfaces, flat faces, base shapes and vertices.
			4	Views of 3D Objects	5.Geometry.Shapes 5.Geometry.Spatial reasoning	Identify 3D objects based on the 2D shapes that can be seen when looking at them from a specific viewpoint.
	6	Shape Movements	1	Rotation	5.Measurement. Measuring	Identify clockwise, anticlockwise, quarter, half and three-quarter turns.
			2	Symmetrical Designs	5.Geometry.Shapes	Use flips and reflections to make symmetrical designs.
			3	Tessellation	5.Geometry.Shapes	Use flips, slides and turns to tessellate shapes and identify shapes that do/do not tessellate.
	7	Angles	1	Types of angles 1	5.Measurement. Measuring	Identify right, acute and obtuse angles, including in two-dimensional shapes.
			2	Types of angles 2	5.Measurement. Measuring	Identify straight and reflex angles and revolutions.
			3	Classifying Angles	5.Measurement. Measuring	Classify angles from 1-360 degrees by thinking about how they relate to right angles.
	8	Maps	1	Compass Directions	5.Geometry.Pathways	Learn the compass directions, including the four cardinal points and the ordinal points between them.
			2	Map Legends and Scales	5.Geometry.Pathways	Use simple scales and legends to interpret information contained in basic maps.
			3	Using a Map	5.Geometry.Pathways	Use simple scales, legends and directions to interpret information contained in basic maps.

