

MATH Vocabulary
Scope and Sequence 4-6

Grades K-3: Vocabulary Across the Grades

LEGEND FOR THE VOCABULARY WORDS INCLUDED BELOW

Student language - Important to know

NEW to Grade

Student language

NEW to Grade

Tier 2 words*

Hyperlinked with example or definition

(Professional Language - for the teacher)

Number Quantity is measured with numbers that enable counting, labelling, comparing, and operating.		
4	5	6
LO1: Students apply place value to decimal numbers.	LO1: Students analyze patterns in place value.	LO1: Students investigate magnitude with positive and negative numbers.
Base-10 Cents Comma Compare Compose / composition Decimal notation <u>Decimal numbers</u> Decimal point Denominator Determine Dollars <u>Digit*</u> Divide Equal, = Express <u>Fraction</u> Greater than, > Hundredths Identify Less than, < Monetary value Multiply <u>Natural Number</u> <u>Numeral</u> One-hundredth One-tenth <u>Order*</u> Part <u>Place value</u> Recognize Relationship <u>Round*</u> Tenths <u>Value*</u> <u>Whole</u>	<u>Compare</u> <u>Decimal numbers</u> Determine Express Greater than, > <u>Infinite</u> Less than, < <u>Number line</u> <u>Numeral</u> <u>Order*</u> <u>Place value</u> Precise Relate <u>Round*</u> Thousandths Valuev	Add Additive inverse <u>Compare</u> Difference Direction Express Greater than, > Horizontal Identify <u>Infinite</u> Integer Investigate Less than, < Magnitude Model <u>Natural Number</u> <u>Negative* numbers / sign</u> <u>Number line</u> Opposite <u>Order*</u> Position Positive* numbers / Sign Relate Subtract <u>Sum</u> Symbolic Symmetry Units Vertical



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LO2: Students add and subtract within 10 000, including decimal numbers to hundredths.	LO2: Students add and subtract within 1 000 000, including decimal numbers to thousandths, using standard algorithms.	LO2: Students solve problems using standard algorithms for addition and subtraction.
Addition Assess Conventional procedures Decimal numbers <u>Difference*</u> Estimation Hundredths <u>Place value</u> Solve <u>Standard algorithms</u> Subtraction <u>Sum</u>	Addition Assess Decimal numbers <u>Difference*</u> <u>Digit*</u> Efficient procedure Reasonableness <u>Standard algorithms</u> Subtraction Solve <u>Sum</u> Thousandths	Addition Procedure Solve <u>Standard algorithms</u> Subtraction

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LO3: Students explain properties of prime and composite numbers using multiplication and division	LO3: Students determine divisibility of natural numbers.	LO3: Students analyze numbers using prime factorization and exponentiation.
Composite number Describe Determine Division Divisor <u>Factors*</u> Greatest common Factor / divisor Multiplication <u>Multiples*</u> Prime number Product* Recognize <u>Remainder</u>	Determine Divisible Divisibility Divisibility Test <u>Factors*</u> Generalize Investigate <u>Natural Number</u> <u>Remainder</u>	Base* Compose Composite number Describe Determine Divisibility Exponent Express <u>Factors*</u> (Factorization) Identify Multiplication <u>Natural Number</u> Order Power* Prime Factors <u>Product*</u> Repeated multiplication

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LO4: Students multiply and divide natural numbers within 10 000.	LO4: Students multiply and divide natural numbers within 100 000, including with standard algorithms.	LO4: Students apply standard algorithms to multiplication and division of decimal and natural numbers.
Apply Assess <u>Digit*</u> Divide Division strategies Estimation Examine Express Facilitate <u>Factors*</u> Investigate Multiplication facts Multiplication strategies Multiply <u>Natural Number</u> Number facts Patterns <u>Product*</u> Reasonableness Recall Quotient Solve <u>Standard algorithms</u>	Assess <u>Digit*</u> Divide Division Explain Efficient procedure Multiplication Multiply <u>Natural Number</u> Quotient Reasonableness Remainder Solve <u>Standard algorithms</u>	Apply Assess Decimal number Division Multiplication <u>Natural Number</u> Procedure <u>Product*</u> Quotient Reasonableness <u>Standard algorithms</u>



Number Quantity is measured with numbers that enable counting, labelling, comparing, and operating.		
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LO5: Students apply equivalence to the interpretation of fractions.	LO5: Students interpret improper fractions	LO5: Students relate fractions to quotients.
Associated Common Factor <u>Compare</u> Decimal numbers <u>Denominator</u> Determine Divide Equivalence Equivalent form Equivalent fractions Express Greatest common Factor Hundredths Identify Improper fraction Infinite Mixed number Model Multiply Non-zero Digit* <u>Number line</u> Numerator Order Partition Position Relate Represent Simplest form Simplified / simplify Tenths Terminate Whole	<u>Area</u> <u>Benchmark</u> <u>Compare</u> Compose Count <u>Denominator</u> Express Fractional part Greater than <u>Improper fraction</u> Interpret Length Measure <u>Mixed number</u> Model <u>Natural Number</u> <u>Number line</u> Numerator Quantities Relate Represent Symbolically <u>Whole</u>	Convert Decimal form Decimal Number <u>Denominator</u> Describe Determine Division Equal-sharing Equivalent Express Fractions Model Numerator Quotient Relate Represent



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	LO6: Students add and subtract fractions with common denominators.	LO6: Students add and subtract fractions with denominators within 100.
	Add Change <u>Common denominator</u> <u>Compare</u> Compose / Composition Decompose / Decomposition Difference Express <u>Fraction</u> Greater <u>Improper fraction</u> Investigate <u>Mixed number</u> Model <u>Multiples*</u> <u>Natural Number</u> Quantity Solve Strategies Subtract Sum Unit <u>Fraction</u>	Add <u>Common denominator</u> <u>Compare</u> Determine Express <u>Factors*</u> <u>Fraction</u> <u>Multiples*</u> Multiplication Recognize Relate Represent Solve Subtract Units
		LO7: Students interpret the multiplication of natural numbers by fractions.
		Denominator Division Equivalent <u>Fraction</u> Interpret Model Multiplication / Multiply <u>Natural Number</u> Numerator Part Quantity Relate Repeated addition Solve Unit <u>Fraction</u>



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LO6: Students interpret percentages.	LO7: Students employ ratios to represent relationships between quantities.	LO8: Students apply equivalence to the interpretation of ratios and rates.
<u>Compare</u> Decimals Divide Express <u>Fraction</u> Hundredth Investigate Multiply Part Percents / Percentages / % Relationship Represent Symbolically <u>Whole</u>	Colon Comparison Countable quantity Decimal Express <u>Fraction</u> Part-part relationship/ratio Part-whole relationship/ ratio <u>Percentages</u> Quantity Ratio Relationship Represent Symbolically	Determine Divide Equivalence / Equivalent Express <u>Expression*</u> Interpret Multiple Multiply Percent / <u>Percentages</u> Proportion Proportional relationship Quantity Rates <u>Ratio</u> Relate Solve Speed <u>Term*</u> Unit price Unit rate



Algebra
Equations express relationships between quantities.

4	5	6
<p>LO1: Students represent and apply equality in multiple ways.</p>	<p>LO1: Students interpret numerical and algebraic expressions.</p>	<p>LO1: Students analyze expressions and solve algebraic equations.</p>
<p>Addition Balance model Conventional order of operations Create Division <u>Equation</u> Evaluate Expression* <u>Infinite</u> Investigate Multiplication Operations Order (Preservation of equality) Represent Solve Subtraction Unknown <u>Value*</u> <u>Value*</u> Write</p>	<p>Addition Algebraic expression Algebraic term Apply Compose Constant term Coefficient Equality <u>Equation</u> Express Evaluate <u>Fraction</u> notation Interpret Inverse operation Investigate Known Value* Multiplication sign Numerical <u>expression</u> <u>Order of operations</u> Parentheses Preserve <u>Product*</u> Recognize Relate Repeated addition Quantity Quotient Represent Solution Solve Symbolically Subtraction <u>Term*</u> Unknown value Variable Verify Write</p>	<p>Addition Algebraic equation Algebraic properties Algebraic term Analyze Associative property of addition Associative property of multiplication Combine Commutative property of addition Commutative property of multiplication <u>Constant term</u> <u>Conventional order of operations</u> Determine Distributive property <u>Equation</u> Equivalence Evaluate Express <u>Expression*</u> Investigate Like term Model Numerical expression Order <u>Parentheses</u> Power* Rearrange Simplified form Simplify Solution* Solve Subtraction <u>Term*</u> <u>Variable</u> Verify</p>



Geometry
Shapes are defined and related by geometric attributes.

4	5	6
<p>LO1: Students analyze and explain geometric properties.</p>	<p>LO1: Students investigate symmetry as a geometric property.</p>	<p>LO1: Students analyze shapes through symmetry and congruence.</p>
<p>Acute triangle Close approximation Complementary angles <u>Angle</u> Classify Describe Equal Equilateral triangle Geometric Properties Hierarchy Identify (Illustrate) Interior angle Isosceles triangle Measurable Obtuse triangle Parallel Parallelogram Perpendicular Polygon Prism Quadrilateral Rectangle Relationship Reflect Resemble Rhombus Right triangle Rotate Scalene triangle Shape Side Side length Square Supplementary angles Transformation Translate Trapezoid Triangle Verify</p>	<p>Center point Central symmetry Classify <u>Compare</u> Degree Describe Geometric property Halves <u>Infinite</u> Investigate Order of rotation symmetry <u>Polygon</u> Recognize <u>Reflection</u> Reflection symmetry Regular Polygon Rotation Rotational Symmetry Show Sides Symmetry</p>	<p>Analyze <u>Congruence</u> Demonstrate Describe Investigate Location <u>Orientation</u> Plane* Reflection / Reflection Symmetry Relate Relationship Rotation / Rotation Symmetry Shapes Size Superimpose Symmetry / Symmetrical Tessellation Tiling Verify Visualize</p>



Coordinate Geometry

4	5	6
	<p>LO1: Students relate location to position on a grid.</p>	<p>LO1: Students explain location and movement in relation to position in the Cartesian plane.</p>
	<p>Coordinate grid Coordinates Describe Distance Grid Horizontal axis Horizontal grid line Location / Locate Model Ordered pairs Point Polygon Position Shapes Space Vertical axis Vertical grid line Vertices</p>	<p><u>Angle</u> Cartesian plane Clockwise Counter-clockwise Create Coordinate grid Coordinates Describe Direction Explain Horizontal distance Image Indicate Line of reflection Location Movement Ordered pairs Origin Polygon Position Reflect Relate / Relation Represent Rotate Shapes Space Symbolically Translate / translation Vertical distance Vertical line Vertices X-axis Y-axis</p>



Measurement Attributes such as length, area, volume, and angle are quantified by measurement.		
4	5	6
LO1: Students interpret and express area.	LO1: Students estimate and calculate area using standard units.	LO1: Students analyze area of parallelograms and triangles.
<p> <u>Area</u> <u>Compare</u> Decompose Determine Equal-sized <u>unit</u> <u>Estimate</u> Measure Measurable attribute Model Motion of a length Multiplication <u>Non-standard units</u> Perpendicular <u>Product*</u> Rearrange Rectangle Recognize Referent Side lengths Solve Square centimeter Standard units Tiling Two-dimensional <u>Arrays</u> <u>Unit</u> Visualize </p>	<p> <u>Area</u> <u>Benchmark</u> Calculate <u>Compare</u> Describe Equivale^t <u>Estimate</u> Express Justify Length Perimeter Precision Relate Relationship Rectangle Side Solve Square centimetres Square metres Square kilometres <u>Standard units</u> <u>Unit</u> </p>	<p> Analyze <u>Area</u> Base* Composite shape Congruent Decompose Describe Determine Division Equal Generalized Half Height <u>Infinite</u> Model Multiplication Parallelograms Parallel sides Perpendicular base Perpendicular distance <u>Product*</u> Quadrilateral Rearrange Relationship Solve Triangles Visualize </p>
		LO2: Students interpret and express volume.
		<p> Area Congruent Create Cube Cubic centimetres Cubic metres Decompose Determine Equivalent Express Interpret <u>Iteration</u> Measurable attribute Measure / Measurement Multiplication Non-standard <u>unit</u> Perpendicular height Perpendicular motion <u>Prism</u> / Right rectangular prism <u>Product*</u> Quantify Rearrange Recognize Resemble </p>



		Solve Standard units Three-dimensional array Units Volume
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Measurement
Attributes such as length, area, volume, and angle are quantified by measurement.

4	5	6
LO2: Students determine and express angles using standard units.		
Acute angle Angle <u>Benchmark</u> Circle <u>Compare</u> Degree Describe Equal-sized <u>unit</u> Estimate Fraction Measure Obtuse angle Protractor Relate Right angle Straight angle Rotation		



Patterns
Awareness of patterns supports problem solving in various situations.

4	5	6
<p>LO1: Students interpret and explain arithmetic and geometric sequences.</p>	<p>LO1: Students relate terms to position with an arithmetic sequence.</p>	<p>LO1: Students investigate functions to enhance understanding of change.</p>
<p>Addition <u>Arithmetic sequence</u> Constant change Create Decrease Describe Division Explain Express <u>Fibonacci sequence</u> <u>Geometric sequence</u> Increase <u>Initial term</u> Investigate Multiplication <u>Numerical sequence</u> Recognize Representation Sequence Skip-counting sequence Square numbers Subtraction <u>Term*</u> <u>Triangular numbers</u></p>	<p><u>Arithmetic sequence</u> Column Coordinate grid Describe Determine Graph Line <u>Natural Number</u> One-to-one correspondence Operation Position Relate / Relationship Represent Rule Row Sequence Solve Table of values Term Write</p>	<p>Algebraic <u>expression</u> Cartesian plane Change Column Correspondence / Corresponding <u>Dependent variable</u> Describe Determine Function* Identify <u>Independent variable</u> Investigate Quantity Recognize Represent Row Rule Strategies Table of values <u>Value*</u> X-coordinates Write Y-coordinates</p>



Time
Duration is described and quantified by time.

4	5	6
<p>LO1: Students communicate duration with standard units of time.</p>		
<p> Addition strategies <u>Analog Clock</u> Calculation Circle Clock Convert Determine Difference Duration Express <u>Fraction</u> Half past the hour Minutes Quarter past the hour Quarter to the hour End time Relate Second Solve <u>Standard unit</u> Subtraction strategies Start time Time </p>		



Statistics
 The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making.

4	5	6
<p>LO1: Students evaluate the use of scale in graphical representations of data.</p>	<p>LO1: Students analyze frequency in categorical data.</p>	<p>LO1: Students investigate relative frequency using experimental data.</p>
<p> Appropriate <u>Bar graph</u> <u>Collect</u> <u>Compare</u> Data Describe <u>Dot plots</u> Effect Engage Formulate Graph Interpret Interval Justify Many-to-one correspondence Pictograph Represent / representation Scale* Select Statistical problem-solving process Statistical question </p>	<p> Analyze Answer Bar graph Categorized data / Categories Closed-list questions <u>Collect</u> <u>Compare</u> Count Create Data points Data sets Determine Discuss Dot plot Examine Formulate <u>Frequency / Frequency table</u> Graphs Identify Interpret Justify Mode Open-ended questions Organize Recognize Representation Statistical questions Stem-and-leaf plots Summarize Survey Table Value </p>	<p> Analyze Categorized Observations Category Collect <u>Compare</u> Data values Decimals Describe Determine Equally likely <u>Estimate</u> Expected likelihood Experimental data Event Express Fraction <u>Frequency*</u> Identify Independent trials bias Interpret Investigate Law of large numbers Likelihood Outcomes Percentage Possible outcomes Potential outcomes Predict <u>Relative frequency</u> Represent Sample of data / Sample sizes Statistics Trials </p>



Financial Literacy: Physical Education & Wellness

Informed financial decision making contributes to the well-being of individuals, groups, and communities.

4	5	6
<p>LO1: Students examine factors that influence spending.</p>	<p>LO1: Students demonstrate how planning can support financial goals.</p>	<p>LO1: Students investigate borrowing and investing in a variety of situations.</p>
<p>Apply Banks Bank account Banking practices Borrow Budget Coins Consider Credit Cards Currency Debit cards Deposit Describe Electronic transfer Financial institutions Goods Identify Interest Money Needs Online banking Paper money Penalties Personal finances Prepaid cards Price comparison Repay Purchase Quality Quantity Services Service fees Spending limit Wants Withdrawal</p>	<p>Adjust Advertising Availability Budget Business Choices Consumer Create Demonstrate Develop Donate Earn Event / Activity Examine Factors* Financial goals Goods Household Invest Long-term goals Marketing Needs Media Period Personal Planning Price Save Savings plan Services Short-term goals Spend Trends Unforeseen circumstances Wants</p>	<p>Agreement Analyze Bank Benefits Bonds Borrow Debt Digital currencies Goods Fee Financial goals Financial institution Financial risks Identify Increase Interest Invest Loan Loan history Long-term goal Mutual funds Purchase Real estate Repay Risk Services Short-term goal Stocks Term Value*</p>

