

Grade 5 Mathematics - At A Glance

Organizing Idea	Grade 5 Learning Outcome	Highlights of your Child's Learning (by the end of Grade 5)
Number	Students analyze patterns in place value.	- Express numbers within 10 000 000, including decimal numbers to thousandths, using words and numerals. - Relate a decimal number to its position on the number line. - Express the relationship between two numbers, including decimal numbers, using $<$, $>$, or $=$ - Round numbers, including decimal numbers, to various places according to context.
	Students add and subtract within 1 000 000, including decimal numbers to thousandths, using standard algorithms.	- Add and subtract numbers, including decimal numbers, using standard algorithms - Assess the reasonableness of a sum or difference using estimation - Solve problems using addition and subtraction, including problems involving money
	Students determine divisibility of natural numbers.	- Investigate divisibility by 0 through to 10 - Generalize divisibility tests for 2, 3, and 5 - Determine factors using divisibility tests
	Students multiply and divide natural numbers within 100 000, including with standard algorithms.	- Multiply up to 3-digit by 2-digit numbers using standard algorithms. - Divide 3-digit by 1-digit numbers using standard algorithms. - Assess the reasonableness of an answer using estimation. - Solve problems using multiplication and division.

	Students interpret improper fractions.	• Relate fractions, improper fractions, and mixed numbers to their positions on the number line. • Count beyond 1 using fractions with the same denominator. • Model fractions, including improper fractions and mixed numbers, using quantities, lengths, and areas. • Express improper fractions and mixed numbers symbolically.
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	Students add and subtract fractions with common denominators.	• Add and subtract fractions with common denominators within 100, including improper fractions and mixed numbers. • Solve problems requiring addition and subtraction of fractions with common denominators, including improper fractions and mixed numbers.
	Students employ ratios to represent relationships between quantities.	• Express ratios to describe various situations. • Express, symbolically, the same part-whole relationship as a ratio, fraction, decimal, and percentage.
Algebra	Students interpret numerical and algebraic expressions.	• Evaluate expressions with one or two terms following order of operations including brackets • An equation with one or two operations is solved by determining an unknown value that makes the left and right sides of an equation equal.
Geometry	Students investigate symmetry as a geometric property.	• Investigate reflection, rotation and lines of symmetry in 2-D and 3-D shapes • Symmetry can be found in nature and in First Nations, Métis, and Inuit designs • Classify 2-D shapes according to symmetry
Coordinate Geometry	Students relate location to position on a grid.	• Location can be described using coordinates on a grid. (limited to quadrant 1)
Measurement	Students estimate and calculate area using standard units.	• Relate length (cm, m and km) to area (cm^2, m^2 and km^2) • Use a benchmark for a cm^2 or m^2 to estimate an area. • Compare the perimeters of various rectangles with the same area.
Patterns	Students relate terms to position within an arithmetic sequence.	• Describe the graph of a given context as a straight line. • Write an algebraic expression that matches a table of values or a straight-line graph

Statistics	Students analyze frequency in categorical data.	• Determine frequency (how often a value occurs) for each category of a set of data. • Use the mode to justify answers to statistical questions • Decide when it is useful to use open-ended or closed-list survey questions to gather data • Categorize data that was collected using closed-list questions. • Create various representations of data to interpret frequency.
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