Bridging Student Learning to New Curriculum

Subject: Mathematics Grade 6

Highlights of Changes from Previous Grade 6 Curriculum

The new Grade 6 Mathematics Curriculum includes

- an introduction to negative numbers
- an expectation to use standard algorithms for addition, subtraction, multiplication, and division with natural and decimal numbers
- an introduction to prime factorization and exponents
- a focus on the relationship between fractions and quotients
- addition and subtraction of fractions
- multiplication of fractions by natural numbers
- an increased focus on rates, ratios, and proportions
- the application of algebraic properties to solving equations
- an introduction to functions and representation on the Cartesian plane
- a focus on analysis of statistics

Suggestions to Support Bridging from Previous Grade 5 Curriculum to New Grade 6 Curriculum

Topic	Previous Mathematics Curriculum: Grade 5	New Mathematics Curriculum: Grade 6	Suggestions to Support Bridging
Operations	Demonstrate proficiency with one appropriate and efficient strategy for addition, subtraction, multiplication, and division.	Use standard algorithms for addition, subtraction, multiplication, and division of decimal and natural numbers.	Students may need extra practice with standard algorithms in order to use them consistently for addition, subtraction, multiplication, and division.
Order of Operations	There is no content related to order of operations.	Evaluate numerical expressions that include multiple operations, parentheses, and powers.	Students will need an understanding of the order of operations.
Prime Factorization	There is no content regarding factors.	Determine the prime factorization of a composite number.	Students will need an understanding of factors, including using divisibility tests.
Fractions	Create equivalent fractions, and compare fractions with common denominators.	Understand that fractions represent quotients.	Students will need an understanding of improper fractions and mixed numbers.
Fraction Operations	There is no content regarding adding and subtracting fractions.	Add and subtract fractions with denominators within 100.	Students will need an understanding of how to add and subtract fractions with common denominators.

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Topic	**Previous Mathematics Curriculum: Grade 5**	**New Mathematics Curriculum: Grade 6**	**Suggestions to Support Bridging**
Proportions	There is no content regarding ratios or percentages.	Represent the same proportional relationship using a ratio, rate, and percentage.	Students will need an understanding of ratios and percentages.
Algebraic Expressions	Algebraic expressions are not explicitly referenced.	Use algebraic properties to simplify algebraic expressions.	Students will need an understanding of algebraic expressions, including specific vocabulary.
Algebraic Equations	Write and solve equations with one variable and one operation.	Simplify and solve algebraic equations with one variable and up to two operations on each side.	Students will need an understanding of solving equations with two operations, including verifying the solution.
Functions	Determine pattern rules to predict elements of a pattern.	Recognize the dependent and independent variables for a function.	Students will need an understanding of a table of values.
Geometry	There is no explicit reference to reflection symmetry or rotation symmetry.	Analyze shapes through symmetry and congruence.	Students will need an understanding of reflection symmetry and rotation symmetry.
Coordinate Geometry	There is no content regarding Cartesian planes.	Graph points, polygons, and functions on the Cartesian plane.	Students will need an understanding of coordinate grids.
Statistics	There is no explicit reference to frequency or mode.	Describe and compare likelihood using frequency statistics.	Students will need an understanding of frequency and mode.