

# Curriculum Outline GRADE 6

A Guide for Grade 6 Math Curriculum



# **GRADE 6**

years



#### **NUMBER PROPERTIES**

- > Evaluate Exponents
- Identify Terms, Coefficients, and Monomials
- > Properties of Addition
- > Factors of Multiplication
- Simplify Variable Expressions
- > Distributive Property
- ➤ Add and Subtract Like Terms
- > Variable Inequalities
- > Reciprocals
- Estimate Quotients When Dividing Mixed Numbers
- ➤ Divisibility Rules with Dividend Up to 10.000.000
- > Estimate Quotients
- > Inequalities with Decimal Division
- Greatest Common Factors (GCF)
- ➤ Least Common Multiples (LCM)
- ➤ GCF and LCM
- > Understanding Integers
- ➤ Absolute Value and Opposite Integers
- Compare Rational Numbers
- Absolute Value of Rational Numbers
- ➤ Inequalities with Decimal Multiplication
- > Identify Factors
- Write Multiplication Expressions Using Exponents
- Order of Operations

#### **FRACTIONS**

- Exponents with Fractional Bases
- Divide by Fractions with Models
- ➤ Divide Fractions Up to 1/5, 1/7, 1/9
- Divide Fractions with Mixed Numbers Up to 20
- > Divide Fractions and Mixed Numbers
- Mixed Fraction Equations with Mixed Numbers Up to 500
- ➤ Mixed Fraction Equations Up to 500
- > Put Rational Numbers in Order
- Add Fractions with Unlike Denominators
- Subtract Fractions with Unlike Denominators

#### **ALGEBRA**

- > Exponents: Solve for the Variable
- > Exponents with Decimal Bases
- > Write Linear Functions
- Evaluate Variable Expressions with Whole Numbers
- Evaluate Variable Expressions with Decimals and Fractions
- Evaluate Multi-Variable Expressions
- > Solve Mixed Equations
- > Solve One Step Linear Inequalities
- ➤ Two-Variable Equations
- Solve One Step Equations with Decimals and Fractions
- Linear Function
- > Add and Subtract Integers
- Write Variable Expressions
- > Function Tables
- Write Variable Expressions
- Write Variable Equations to Represent

#### **MIXED EQUATIONS**

- Evaluate Expressions involving Integers
- Mixed Equations with Whole Numbers
- Mixed Equations with Whole Numbers



#### **MEASUREMENT**

- > Convert Between Celsius and Fahrenheit
- Working with Temperatures Above and Below Zero
- Compare and Convert Customary Units with Numbers Up to 20
- Convert, Compare and Subtract Mixed Customary Units
- Multiply and Divide Mixed Customary Units
- Customary Unit Conversions Involving Fractions and Mixed
- Compare and Convert Metric Units
- Convert Between Metric and Customary Units
- Metric Unit Conversions involving Fractions and Mixed
- Convert, Compare and Subtract Mixed Metric Units
- Multiply and Divide Mixed Metric Units

#### **NUMBER PATTERNS**

> Division Patterns with Zeroes

#### **GEOMETRY**

- ➤ Nets of 3-Dimensional Figures
- > Area of Complex Figures
- Compare Area and Perimeter of Two Figures
- > Area of Right Triangles
- Volume of Cubes and Rectangular Prisms

#### **DIVISION**

- Divide Numbers Ending in Zeroes
- Division with Remainder with Divisor Up to 1000



#### **DECIMALS**

- Add and Subtract Decimal Numbers Up to 3 Places
- Add and Subtract Decimal Up to 100
- Multiply Decimals with Numbers Up to 100
- ➤ Divide Decimals by Whole Numbers
- Divide Decimals by Whole Numbers
- Multiply and Divide Decimals by Powers of Ten
- > Division with Decimal Quotients
- > Evaluate Expressions with Decimals
- Mixed Equations with Decimals
- Mixed Equations with Decimals

#### **RATIOS**

- > Ratios
- Unit Rates and Equivalent Rates
- Unit Rates
- > Ratio Tables
- Equivalent Ratios
- Equivalent Ratios
- Compare Ratios
- Unit Prices with Customary Unit Conversions and Fractions
- Percents of Numbers and Money Amounts
- > Percents of Numbers
- Unit Prices with Customary Unit Conversions Up to 100
- Describe Pictures as Ratios
- ➤ What Percentage Is Illustrated?
- > Unit Prices with Metric Unit Conversions

#### **ESTIMATION**

- Estimate Sums and Differences of Decimals Up to 100
- Estimate Products of Decimal Numbers

#### **MONEY**

- ➤ Consumer Math: Unit Prices
- ➤ Which is the Better Coupon?
- ➤ Unit Prices: Which is the Better Buy?
- > Sale Prices
- > Sale Prices: Find the Original Price
- > Calculate Tip, Markup and Commission



#### **STATS**

- Identify Representative, Random, and Biased Samples
- Calculate Mean
- Calculate Mode
- ➤ Calculate Range
- > Calculate Median
- Calculate Mean, Median, Mode and Range
- Mean, Median, Mode, and Range: Find the Missing Number
- > Interpret Box-And-Whisker Plots
- Interpret Charts to Find Mean, Median, Mode, and Range
- > Identify Representative Samples
- > Identify Biased Samples
- > Interpret Charts to Find Mean
- ➤ Interpret Charts to Find Median
- > Interpret Charts to Find Mode
- Interpret Charts to Find Range

#### **GRAPHING**

- ➤ Interpret Bar Graphs
- Create Bar Graphs
- > Interpret Double Bar Graphs
- > Create Double Bar Graphs Using Tables
- > Circle Graphs with Fractions
- Interpret Line Graphs
- Create Line Graphs
- Interpret Double Line Graphs
- Create Double Line Graphs Using Tables
- > Interpret Pictographs
- Interpret Line Plots with Up to 5 Data Points
- > Relative Coordinates
- > Distance Between Two Points
- Graph Points on a Coordinate Plane
- Coordinate Graphs with Decimals and Negative Numbers
- > Coordinate Graphs Review
- ➤ Translations: Graph the Image
- > Reflections: Graph the Image
- ➤ Coordinate Graphs as Maps
- > Stem-And-Leaf Plots
- Create Line Plots
- Create Line Plots II
- > Create Pictographs
- Create Histograms
- Create Frequency Tables
- Maps with Decimal Distances
- Choose the Best Graph Type
- Constant Rate of Change
- ➤ Interpret Circle Graphs