

# Curriculum Outline GRADE 4

A Guide for Grade 4 Math Curriculum



# **GRADE 4**

# years



#### GEOMETRY

- > Acute, Right, Obtuse, and Straight Angles
- ➢ Lines, Line Segments and Rays
- > Parallel, Perpendicular, Intersecting
- Identify Planar and Solid Shapes
- Types of Triangles
- > Symmetry
- Relationship Between Area and Perimeter
- Use Area and Perimeter to Determine the Cost
- > Angles of 90, 180, 270 and 360 Degrees
- Estimate Angle Measurements
- > Adjacent Angles
- > Identify Angles
- Compare Area and Perimeter of Two Figures
- Which 2 Dimensional Shape Is Described?
- Classify Quadrilateral Shapes
- Perimeter with Unit Squares
- Area of Squares and Rectangles

#### TIME

- Convert Time Units
- Fractions of Time Units
- Add and Subtract Mixed Time Units
- Find the Change in Timel
- Find Start and End Times
- ➤ Time Patterns

#### MEASUREMENT

- Compare and Convert Customary Units
- Compare and Convert Metric Units
- Convert Mixed Customary Units
- Add and Subtract Customary Units
- > Compare Customary Units by Multiplying
- Convert Between Metric and Customary Units
- > Recipes
- Compare Metric Units by Multiplying
- Convert Mixed Metric Units
- Add and Subtract Metric Units

#### MONEY

- ➤ Making Change Up to \$20
- Compare Money Amounts
- > Price Lists with Multiplication
- Price Lists with Addition and Subtraction



#### GRAPHING

- Interpret Line Plots with Numbers Up to 40
- ➤ Create Line Plots

#### NUMBER PROPERTIES

- Convert Numbers with Tens, Hundreds, Thousands
- Compare Numbers Up to 10000000
- Inequalities with Multiplication
- Inequalities with Division
- Inequalities with Mixed Equations
- Factors of Multiplication
- Properties of Division
- Choose the Equivalent Fraction Up to Twentieths
- Inequalities with similar Fractions Up to 12
- Choose Properties of Multiplication
- Prime and Composite Numbers
- > Choose the Multiples of a Given Number
- > Identify Factors
- Choose Numbers with a Particular Product
- Divisibility Rules with Numbers Up to 10,000
- Input/Output Tables with Mixed Equations

#### ADDITION

- Convert Numbers with Tens, Hundreds, Thousands
- ➤ Add Two Numbers Up to 5000000
- > Numbers Up to 5000000
- > Choose Numbers with a Particular Sum

#### COUNTING

- Compare Numbers Up to 1000000
- Counting and Number Patterns: Writing Numbers in Words



#### NUMBER PATTERNS

- Addition Patterns Over Increasing Place Values
- Multiplication Patterns Over Increasing Place Values
- Patterns of Equivalent Fractions
- Geometric Growth Patterns
- Increasing Growth Patterns
- > Numeric Patterns
- Patterns involving Addition and Multiplication
- ➤ Time Patterns
- > Mixed Patterns

#### DIVISION

- Inequalities with Division
- Properties of Division
- Division with Remainder with Numbers Up to 500
- Division Tables
- Division with Remainder with Numbers Up to 1000
- > Division with Divisors Up to 100
- > Division with Dividend Up to 1000
- Division with Divisors Up to 200
- Interpret Remainders
- Divisibility Rules with Numbers Up to 10,000

#### MULTIPLICATION

- Inequalities with Multiplication
- ➤ Multiply Two Numbers Up to 500
- Multiplication Patterns Over Increasing Place Values
- Factors of Multiplication
- ➤ Multiply Two Numbers Up to 100
- ➤ Multiply Two Numbers Up to 1000
- > Multiply Fractions by Whole Numbers
- Multiply Fractions by Whole Numbers
- Find Missing Factors
- Choose Properties of Multiplication
- Estimate Products
- Multiplication with Operands Up to 1001
- Multiplication with Operands Up to 100 II
- Multiplication with Operands Up to 100 III
- Multiply a 2-Digit Number by a 2-Digit Number

#### MIXED EQUATIONS

- Inequalities with Mixed Equations
- Mixed Equation with Numbers Up to 10000
- Estimate Mixed Equations
- > Multi-Step
- Extra or Missing Information
- Solve Using Guess-And-Check
- Choose Numbers to Make Mixed Equations
- Input/Output Tables with Mixed Equations



#### **ESTIMATION**

- Estimate Sums with Numbers Up to 100,000
- Estimate Sums
- Estimate Differences
- Estimate Differences
- ➤ Estimate Products Up to 100,000
- ➢ Estimate Quotients Up to 10,000
- Estimate Mixed Equations
- ➤ Rounding with Numbers Up to 100,000

#### FRACTIONS

- Choose the Equivalent Fraction Up to Twentieths
- Patterns of Equivalent Fractions
- ➢ Reduce to Lowest Terms
- Put Fractions in Order Up to Twentieths
- Inequalities with similar Fractions Up to 12
- > Add Two Fractions
- Subtract Two Fractions
- Add Three Fractions
- Subtract Three Fractions
- Add Two Mixed Fractions
- Subtract Two Mixed Fractions
- Add Fractions
- Subtract Fractions
- > Multiply Fractions by Whole Numbers
- Multiply Fractions by Whole Numbers
- Convert Fractions and Mixed Numbers to Decimals
- Convert Decimals to Fractions and Mixed Numbers
- Equal Fractions with Denominators of 10, 100, 1000
- Decompose Fractions with Denominators of 10, 100, 1000
- Add Fractions with Denominators of 10, 100, 1000

#### SUBTRACTION

- ➤ Subtraction with Numbers Up to 5000000
- ➤ Fill in the Missing Digits
- Choose Numbers with a Particular Difference
- Subtraction with Numbers Up to 5000000

#### DECIMALS

- Convert Fractions and Mixed Numbers to Decimals
- Convert Decimals to Fractions and Mixed Numbers
- Compare Decimal Numbers Up to 2 Places
- Put Decimal Numbers in order with Numbers Up to 5



#### COMPARISON

- ➢ Compare Decimal Numbers Up to 2 Places
- > Put Decimal Numbers in order with Numbers Up to 5

#### ALGEBRA

- > Write Variable Expressions
- Write Variable Equations to Represent
  Find Two Numbers Based on the Sum
- and the Difference
- ➢ Find Two Numbers Based on the Operation
- > Function Tables