

## **First grade Math**

### **1. Counting and number patterns**

Counting review - up to 10

Add and subtract within 20.

Estimating to 10

Work with equal groups of objects to gain foundations for multiplication.

### **2. Understand addition**

Add with pictures - sums up to 10

Addition sentences - sums up to 10

Addition sentences using number lines - sums up to 10

Adding zero

Addition skill builders

### **3. Understand subtraction**

Subtract with pictures - numbers up to 10

Subtraction sentences - numbers up to 10

Subtraction sentences using number lines - numbers up to 10

Subtract zero and all

Subtraction skill builders

Subtraction strategies for mental math

### **4. Measurement and Data**

Measure and estimate lengths in standard units.

Measure Temperature.

Work with time and money.

Represent and interpret data.

### **5. Geometry**

Reason with shapes and their attributes.

## **Second grade Math**

### **1. Operations and Algebraic Thinking**

Represent and solve problems involving addition and subtraction.

Add and subtract within 20.

Work with equal groups of objects to gain foundations for multiplication.

### **2. Number and Operations in Base Ten**

Understand place value.

Use place value understanding and properties of operations to add and subtract.

Use the knowledge of place value to regroup

Learn multiple strategies to compute mental math

### **3. Measurement and Data**

Measure and estimate lengths in standard units.

Begin to understand the concept of area.

Work with time and money.

Represent and interpret data.

### **4. Geometry**

Reason with shapes and their attributes.

## **Grade 3 Math Curriculum**

### **1 Understanding Multiplication and Division**

Multiplication as Repeated Addition

Multiplication on the Number Line

Arrays and Multiplication

The Commutative properties

Division as Sharing

Division as Repeated Subtraction

## **2 Multiplication Facts Use Patterns**

2 and 5 as factors

9 as factors

Apply properties: Multiply by 0 and 1

Multiply facts by 0,1,2,5,9, and 10

## **3 Apply properties: Multiplication Facts for 3,4,6,7,8**

Distributive properties

Apply properties:3 as a factor

Apply properties:4 as a factor

Apply properties:6 and 7 as a factor

Apply properties:8 as a factor

## **4 Use Multiplication to Division: Division Facts**

Relate Multiplication and Division

Use Multiplication to divide with 2,3,4,and 5

Use Multiplication to divide with 6,and 7

Use Multiplication to divide with 8,and 9

Multiplication patterns: Odd and Even Numbers

Division involving 0 and 1

## **5 Fluently Multiply and Divide within 100**

Patterns for Multiplication Facts

Use a Multiplication Table

Finding missing Numbers in a Multiplication Table

Use Strategies to Multiply

## **6 Connect Area to Multiplication and Addition**

Multiplication as Repeated Addition

Multiplication on the Number Line

Arrays and Multiplication

The Commutative properties

Division as Sharing

Division as Repeated Subtraction

## **7. Represent and Interpret Data**

Read Picture and Bar Graphs

Make Picture Graphs

Make Bar Graphs

Solve Word Problems Using Information in Graphs

## **8 Use Strategies and properties to Add and Subtract**

Addition Properties

Algebra: Addition Properties

Round Whole Numbers

Estimate Sums

Estimate Differences

Relate Addition and Subtraction

Fluently Add and Subtract within 1000

Use Partial Sums to Add  
Add 3 Digit Numbers  
Use Partial Differences to Subtract  
Subtract 3-Digit Numbers

## **9 Multiply by Multiples of 10**

Use an Open Number line to Multiply  
Use Properties to Multiply  
Multiply with multiples of 10

## **10 Use Operations with Whole Numbers to Solve Problems**

Solve two step word problems: addition and subtraction  
Solve two step word problems: multiplication and division  
Solve two step word problems: all operations

## **11. Understand Fractions as Numbers**

Divide regions into equal parts  
Fractions and regions  
Understand the whole  
Number line: fractions less than one  
Number line: fractions greater than one  
Line plots and length  
Fraction Equivalence and Comparisons  
Equivalent fractions: use models  
Equivalent fractions: use the number line  
Use models to compare fractions: same denominator  
Use models to compare fractions: same numerator  
Compare fractions: use benchmarks  
Compare fractions: use the number line  
Whole numbers and fractions

## **12 Solve Time, Capacity, and Mass problems**

Time to the minute  
Units of time: measure elapsed time  
Unit of time: solve word problems  
Estimate and measure liquid volume  
Estimate and measure mass  
Solve word problems involving mass and liquid volume  
Attributes of two-dimensional shapes  
Describe quadrilaterals  
Classify shapes  
Analyze and compare quadrilaterals  
Solve perimeter problems  
Understand perimeter  
Perimeter of common shapes  
Perimeter and unknown side lengths  
Same perimeter, different area  
Same area, different perimeter

## **Grade 4 Math Curriculum**

### **1 Generalize place value understanding Numbers through 1 million**

Place value relationships  
Compare whole numbers  
Round whole numbers  
Fluently add and subtract multi-digit whole numbers  
Mental math: find sums and differences  
Mental math: estimate sums and differences  
Add whole numbers  
Subtract whole numbers  
Subtract across zeros  
Use strategies and properties to multiply by one digit numbers  
Mental math: multiply by ten, 100, and 1000  
Mental math: round to estimate products  
Distributive properties  
Mental math: strategies for multiplication  
Arrays and partial products  
Use partial products to multiply by one digit numbers  
Multiply two- and three-digit numbers by one digit numbers  
Multiply four digit numbers by one digit numbers  
Use strategies and properties to multiply by two digit numbers  
Mental math: multiply by ten, 100, and 1000  
Use models to multiply two digit numbers by multiples of 10  
Estimate: use rounding  
Estimate: use compatible numbers  
Arrays and partial products  
Multiply using the distributive property  
Use partial products to multiply by two digit numbers  
Multiply two digit numbers by multiples of 10  
Multiply two digits by two digits  
Use strategies and properties to divide by one digit numbers  
Mental math: find quotient  
Mental math: estimate quotient  
Mental math: estimate quotient for greater dividends  
Interpret remainders  
Division as sharing  
Use partial quotients to divide  
Use partial quotients to divide greater dividends  
Divide with one digit numbers

Use operations with whole numbers to solve problems  
Solve comparison situations  
Solve multi-step problems  
Factors and multiples  
Understand factors  
Factors  
Prime and composite numbers  
Multiples  
Extend understanding of fraction equivalence and ordering  
Equivalent fractions: area models  
Equivalent fractions: number lines  
Generate equivalent fractions: multiplication  
Generate equivalent fractions: division  
Use benchmarks to compare fractions  
Understand addition and subtraction of fractions  
Model addition fractions  
Decompose fractions  
Add fractions with like denominators  
Model subtraction of fractions  
Subtract fractions with like denominators  
Estimate fractions with sums and differences  
Model addition and subtraction of mixed numbers  
Add mixed numbers  
Subtract mixed numbers  
Extend multiplication concepts to fractions  
Fractions as multiples of unit fractions: use models  
Multiply a fraction by a whole number: use models  
Multiply a fraction by a whole number: use symbols  
Multiply a whole number and a mixed number  
Solve time problems  
Represent and interpret data on line plots  
Read line plots  
Make line plots  
Use line plots to solve problems  
Understand and compare decimals  
Fractions and decimals  
Fractions and decimals on the number line

**Compare decimals**

**Add fractions with denominators of 10 and 100**

**Solve word problems involving money**

**Measurement: find equivalence in units of measure**

**Equivalence with customary units of length**

**Equivalence with customary units of capacity**

**Equivalence with customary units of weight**

**Equivalence with metric units of length**

**Equivalence with metric units of capacity**

**Equivalence with metric units of weight**

**Algebra: generate and analyze patterns**

**Number sequences**

**Patterns: number rules**

**Patterns: repeating shapes**

**Geometric measurement: understand concepts of angles and angle measurements**

**Lines, rays, and angles**

**Understand angles and unit angles**

**Measure with unit angles**

**Measure and draw angles**

**Add and subtract angle measures**

**Lines, angles, and shapes**

**Lines**

**Classify triangles**

**Classify quadrilaterals**

**Line symmetry**

**Draw shapes with line symmetry**

We will also be using two Computer Programs; IXL and ST Math. IXL is an online tool that kids love. It gives teachers valuable information about a child's math and reading ability and fun, interactive practice for students to reinforce skills. Spatial-Temporal (ST) Math was created by MIND Research Institute, ST Math is game-based instructional software for K-12 and is designed to boost math comprehension and proficiency through visual learning.