

# Second Grade Math



## Course Overview

Second graders develop an understanding of mathematical operations, and use their understanding to solve problems and apply mathematical concepts to the world around them. Students will:

- Work with patterns and sequences
- Add and subtract two-digit numbers using place value blocks
- Solve word problems, including problems involving money and time
- Study measurements of length, weight, and capacity in both metric and standard units
- Begin to learn about fractions, geometry, and probability
- Understand basic multiplication and division concepts

## Course Outline

### Number and Operation Sense

- Read, write, compare, and order whole numbers to 20
- Compare numbers using the symbols  $<$  or  $>$
- Recognize addition and subtraction as inverse operations
- Add numbers with sums of 12 or less using related facts and other strategies
- Subtract from 12 or less using related facts and other strategies

### Place Value to 100

- Read, count, write, and expand whole numbers to 99
- Compare and order whole numbers to 99
- Identify the place and value of each digit in numbers to 99
- Round numbers to the nearest 10
- Count by ones, twos, threes, fours, fives, and tens
- Identify and extend number patterns
- Organize, display, and interpret data of pictographs and bar graphs

### Addition and Subtraction: Facts to 18

- Recognize addition and subtraction as inverse operations
- Add numbers with sums of 18 or less
- Subtract from 18 or less
- Find the sum of three or more addends

### Money and Time

- Identify the value of coins and bills
- Find the value of groups of coins and bills
- Tell time to five-minute intervals
- Estimate the duration of an event
- Read and interpret a calendar

### Addition and Two-digit Numbers

- Add two and three two-digit whole numbers, regrouping when necessary
- Add amounts of money, regrouping when necessary
- Use the order property to check addition

### Subtraction of Two-digit Numbers

- Find the difference of two-digit whole numbers, regrouping when necessary
- Subtract money amount less than a dollar with regrouping
- Use rounding to estimate sums and differences
- Choose the best method of computation: paper and pencil or mental math

### Geometry, Fractions, and Probability

- Identify and classify plane figures
- Identify and classify solid figures
- Describe the attributes of plane and solid figures
- Recognize, name, compare, and write fractions to twelfths
- Identify and predict outcomes in probability

### Measurement

- Measure, compare, and estimate length, capacity, and weight/mass in English and metric units
- Distinguish between perimeter and area using linear and square units
- Read a thermometer to find temperature in degrees Fahrenheit
- Choose the appropriate unit of measurement or measuring tool

### Place Value to 1,000 and Addition

- Read, count, expand, and write whole numbers to 999
- Recognize the place and value of numbers to 999
- Add three-digit whole numbers or money amounts by regrouping twice

### Multiplication and Division

- Explore the concept of multiplication as repeated addition
- Explore the concept of division as separating
- Multiply groups of 2, 3, 4, and 5
- Divide by 2, 3, 4, and 5
- Recognize multiplication and division as inverse operations



## Place Value to 1,000 and Subtraction

- Order and compare whole numbers to 999
- Find the difference of three-digit numbers, regrouping when necessary
- Find the difference of three-digit money amounts, regrouping when necessary
- Estimate by rounding to the nearest hundred or dollar to find sums or differences

## Moving On in Math

- Read, count, and write whole numbers to 9,999
- Find sums and differences of four-digit whole numbers without regrouping
- Use the order of operations to find the value of expressions

## Lesson Time and Scheduling

Total lessons: 180

Lesson Time: 60 minutes. You might choose to split the lessons into smaller segments and take breaks as needed. K<sup>12</sup>'s online lesson tracking system allows you to pick up wherever you left off in any given lesson.

## Standard Curriculum Items

Math Textbook, Grade 2

Counting Chips

Multilink Cubes

Game Spinner

Base-10 Cubes

Base-10 Rods

Geometric Wooden Solids

GeoBoards

NOTE: List subject to change.