# Grade 3 Parent Overview

## Quarter 1 Topic Overview

**Meanings of Multiplication:**

- Draw models and write story contexts to interpret total number of objects in equal groups and arrays
- Use multiplication to solve contextual problems within 100 in situations involving equal groups, arrays, and measurement quantities

**Properties of Multiplication:**

- Apply properties of operations as a strategy to multiply or divide and explain patterns
- Multiply one-digit whole numbers by multiples of 10
- Fluently multiply within 100

**Area:**

- Use tiling and counting square units to measure area
- Use dimensions of rectangles to solve area problems by multiplying side lengths
- Use area models to represent the distributive property
- Decompose rectilinear figures into non-overlapping rectangles and add the areas together
- Use multiplication and division to solve contextual problems within 100 in situations involving arrays and measurement quantities

**Multiplication and Division:**

- Write equations that include a symbol for the unknown number to represent the problem
- Understand the inverse relationship between multiplication and division
- Fluently multiply and divide within 100

**Patterns:**

- Use 100 charts, multiplication tables, and number sequences to model and identify arithmetic patterns
- Explain patterns using properties of operations
- Repeated patterns or color patterns may be used to introduce the vocabulary, but these are not arithmetic patterns assessed in third grade

**Rounding:**

- Understand rounding is useful for estimating and determining the reasonableness of a solution
- Round 2- and 3-digit numbers to the nearest ten and hundred
- Explain reasoning using number lines, midpoints, a hundreds chart, and a place value chart

## Quarter 2 Topic Overview

**Division:**

- Draw models and write story contexts to interpret division as grouping or sharing
- Use division to solve contextual problems within 100 in situations involving equal groups and arrays

**Multiplication and Division:**

- Understand the inverse relationship between multiplication and division
- Use multiplication and division to solve contextual problems within 100 in situations involving equal groups and arrays
- Fluently multiply and divide within 100

**Two-Step Word Problems:**

- Solve one-and two-step contextual problems using all four operations
- Represent problems using equations with a letter standing for the unknown quantity
- Assess the reasonableness of answers using mental math computation and estimation strategies including rounding

**Addition and Subtraction:**

- Make connections between various strategies (partial sums, expanded form for addition or subtraction, etc.)
- Fluently add and subtract within 1,000

## Quarter 3 Topic Overview

**Addition and Subtraction:**

- Fluently add and subtract within 1,000 and make connections between various strategies (i.e.partial sums, expanded form for addition or subtraction, etc.)
- Fluently add and subtract within 1,000 using a range of algorithms

**Area and Perimeter:**

- Understand that for a polygon, the length of the perimeter is the sum of the lengths of the sides
- Solve real world problems of polygons to find the perimeter or the unknown side length
- Use dimensions of rectangles to solve area problems by multiplying side lengths.
- Create rectangles that have the same perimeter and different area or with the same area and different perimeter

**Time:**

- Tell and write time to the nearest minute
- Measure time intervals in minutes
- Solve contextual problems involving addition and subtraction of time intervals in minutes
- Represent elapsed time problems with models such as a number line

**Fraction Meanings:**

- Expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8
- Understand that fractions have different meanings: fractions of a region and fractions of a line segment
- Understand that fractions and mixed numbers are composed of unit fractions
- Explain fractional equivalence to whole numbers
- Understand the meaning of numerators and denominators
- Represent fractions on a number line
- Partition shapes into parts with equal area

**Equivalent Fractions**:

- Expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8
- Understand fractions are equivalent if they are the same size or the same point on a number line
- Identify and generate equivalent fractions and explain using visual models
- Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers

**Comparing Fractions:**

- Expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8
- Compare fractions with like numerators or like denominators by using visual models or reasoning about the size of the unit fraction
- Recognize that a comparison is only valid when the fractions refer to the same size whole

- Use >, =, < symbols to compare two fractions

## Quarter 4 Topic Overview

**Liquid Volume and Mass:**

- Measure the mass of objects and liquid volume
- Estimate the mass of objects and liquid volume using benchmarks
- Solve one-step problems using addition and subtraction within 1000 and multiplication and division within 100

**Money:**

- Solve problems involving amounts less than one dollar including quarters, dimes, nickels, and pennies using the ¢ symbol appropriately and whole numbers dollar amounts up to $1000

**Graphs:**

- Solve one- and two-step “how many more” and “how many less” problems
- Draw scaled pictographs and bar graphs

**Line Plots:**

- Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch
- Create a line plot that is marked off in whole numbers, halves, and fourths (including mixed numbers) based on the data collected
- Show the data by making a line plot

**Geometry: Polygons**

- Determine if a figure is a polygon by its attributes
- Understand shapes have different categories based on geometric attributes
- Recognize rhombuses, rectangles, and squares as examples of quadrilaterals
- Draw examples of quadrilaterals that do not belong to any of the subcategories listed above