

# Mathematics

# <u>Grade 3</u>

#### Numbers and Operations in Base 10

I can:

- Fluently add and subtract within 1000
- Use place value understanding to round whole numbers to the nearest 10 or 100
- Fluently multiply and divide within 100
- Multiply one-digit whole numbers by multiples of 10 in the range 10–90

## **Operations and Algebraic Thinking**

I can:

- Interpret whole-number quotients of whole numbers
- Interpret products of whole numbers
- Apply properties of operations as strategies to multiply and divide
- Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities
- Determine the unknown whole number in a multiplication or division equation relating three whole numbers
- Understand division as an unknown-factor problem
- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division

## **Numbers and Operations with Fractions**

I can:

- Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b
- Understand a fraction as a number on the number line; represent fractions on a number line diagram
- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size

## Geometry

#### I can:

- Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories
- Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole

#### **Measurement and Data**

I can:

- Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes
- Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (I).<sup>6</sup> Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units
- Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs
- Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters
- Recognize area as an attribute of plane figures and understand concepts of area measurement
- Measure areas by counting unit squares
- Relate area to the operations of multiplication and addition
- Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters