

## Math Grade 3

### **Number Sense, Estimation, Computation**

*Students will be able to:*

- Demonstrate understanding of the base ten number system by reading, modeling, writing, and interpreting whole numbers to 10,000.
- Compare large numbers (to 10,000) using various forms including expanded notation ( $853 = 8 \times 100 + 5 \times 10 + 3$ ).
- Demonstrate understanding of common fractions ( $1/2, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/12$ ) as parts of unit wholes, as parts of a collection, and as locations on the number line.
- Use a variety of strategies (front-end, rounding, and regrouping) to estimate quantities, measures, and whole-number computations up to three-digit whole numbers and amounts of money to \$1,000.
- Identify and generate equivalent forms of common decimals and fractions that equal less than one whole (halves, quarters, fifths, and tenths).
- Select and use the appropriate operation(s) (addition, subtraction, multiplication, division) to solve problems, including those involving money.
- Demonstrate the ability to use the conventional algorithms for addition and subtraction up to five-digit numbers.

### **Patterns, Relations, & Algebra**

*Students will be able to:*

- Demonstrate understanding and application of patterns and strategies to solve problems.
- Create, describe, extend, and explain symbolic (geometric) and numeric patterns, including multiplication patterns (3, 30, 300, 3000, ...).
- Create tables of values in relation to pairs of data.
- Use Venn diagrams as a method to sort objects or data.

### **Geometry**

*Students will be able to:*

- Understand the concept of perimeter and area.
- Compare and analyze attributes and other features (number of sides, faces, corners, right angles, diagonals, and symmetry) of two- and three-dimensional geometric shapes.
- Describe and apply techniques such as reflections (flips), rotations (turns), and translations (slides) to determine if two shapes are congruent.
- Identify and describe line symmetry in two-dimensional shapes.
- Predict and validate the results of partitioning, folding, and combining two- and three-dimensional shapes.
- Describe, model, draw, compare, and classify two-dimensional shapes (circles, polygons, triangles, and quadrilaterals).

### **Measurement**

*Students will be able to:*

- Compare sets of currency and give correct change.
- Compare the Fahrenheit and Celsius temperature scales.
- Determine elapsed time (digital and analog).
- Describe length, weight, and volume using both the metric and standard units.

### **Statistics & Probability**

*Students will be able to:*

- Collect and organize data using observations, measurements, surveys, or experiments and identify appropriate ways to display the data.
- Construct, read, and interpret illustrations of data to draw conclusions, or make predictions from various representations of data sets, including tables, bar graphs, circle graphs, pictographs, line graphs, line plots, and tallies.
- Demonstrate an understanding and apply knowledge of chance, probability, and guesses.

