Grade 3 Overview

In Grade 3, instructional time should focus on four areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing polygons based on the number of sides and vertices. Please note that while every standard/topic in the grade level has not been included in this overview, all standards should be included in instruction.

1. Through their learning in the ***Operations and Algebraic Thinking*** domain, students:
   - develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size;
   - use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors; and
   - compare a variety of solution strategies to learn the relationship between multiplication and division.

2. Through their learning in the ***Number Sense and Operations—Fractions*** domain, students:
   - develop an understanding of fractions, beginning with unit fractions;
   - view fractions in general as being built out of unit fractions, and use fractions along with visual fraction models to represent parts of a whole;
   - understand that the size of a fractional part is relative to the size of the whole. Use fractions to represent numbers equal to, less than, and greater than one; and
   - solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

3. Through their learning in the ***Measurement and Data*** domain, students:
   - recognize area as an attribute of two-dimensional regions;
   - measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area; and
   - understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.

4. Through their learning in the ***Geometry*** domain, students:
   - classify polygons by examining their sides and vertices; and
   - relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

Mathematical Practices

1. Make sense of problems and persevere in solving them.	5. Use appropriate tools strategically.	
2. Reason abstractly and quantitatively.	6. Attend to precision.	
3. Construct viable arguments and critique the reasoning of others.	7. Look for and make use of structure.	
4. Model with mathematics.	8. Look for and express regularity in repeated reasoning.	