Third Grade First Semester Math Curriculum Guide

First Nine Weeks

Multiplication & Division, Place Value & Problem Solving

3.OA.A.1 Interpret *products* of *whole numbers* (e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each)

3.OA.A.2 Interpret whole-number *quotients* of *whole numbers* (e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each)

3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities (e.g., by using drawings and *equations* with a symbol for the unknown number to represent the problem)

3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three *whole numbers*

3.OA.A.5 Apply properties of operations as strategies to multiply and divide

3.OA.A.6 Understand division as an unknown-factor problem

3.OA.A.7 Using *computational fluency*, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one know 40 ÷ 5 = 8) or properties of operations

By the end of Grade 3, automatically (*fact fluency*) recall all *products* of two one-digit numbers

3.OA.A.8 Solve two-step word problems using the four operations, and be able to:

Represent these problems using *equations* with a letter standing for unknown quantity

Assess the reasonableness of answers using mental computation and estimation strategies including rounding

3.NBT.A.1 Use *place value* understanding to round *whole numbers* to the nearest 10 or 100

3.NBT.A.2 Using *computational fluency*, add and subtract within 1000 using strategies and *algorithms* based on *place value*, properties of operations, and the relationship between addition and subtraction

3.MD.A.1 Tell time using the terms quarter and half as related to the hour (e.g., quarter-past 3:00, half-past 4:00, and quarter till 3:00)

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 (e.g., by representing the problem on a *number line diagram*)

3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units such as: grams (g), kilograms (kg), liters (l), gallons (gal), quarts (qt), pints (pt), and cups (c)

Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units (e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem)

Second Nine Weeks

Multiplication & Division, Multiplication & Area

Continue 3.OA.A.3-3.OA.A.8

A.OA.A.9 Identify arithmetic patterns (including, but not limited to, patterns in the addition table or multiplication table), and explain them using properties of operations

3.NBT.A.3 Multiply one-digit *whole numbers* by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on *place value* and properties of operations

3.MD.C.5 Recognize area as an *attribute* of plane figures and understand concepts of area measurement: A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. A plane figure, which can be covered without gaps or overlaps by *n* unit squares, is said to have an area of *n* square units

3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units)

3.MD.C.7 Relate area to the operations of multiplication and addition:

- Find the area of a rectangle with whole-number side lengths by tiling it and show that the area is the same as would be found by multiplying the side lengths.
- Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number *products* as rectangular areas in mathematical reasoning
- Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths *a* and *b* + *c* is the *sum* of *a* × *b* and *a* × *c*
- Use area models to represent the distributive property in mathematical reasoning
- Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems