

Fifth Grade Second Semester Math Curriculum Guide

Third Nine Weeks

Operations & Algebraic Thinking, Number & Operations in Base Ten

Number & Operations in Fractions

5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left

5.NBT.A.2 Understand why multiplying or dividing by a power of 10 shifts the *value* of the digits of a whole number or decimal

5.NBT.A.3 Read, write, and compare decimals to thousandths:

5.NBT.A.4 Apply *place value* understanding to round decimals to any place

5.NBT.B.5 Fluently (efficiently, accurately and with some degree of flexibility) multiply multi-digit *whole numbers* using a standard *algorithm*

5.NBT.B.6 Find whole-number *quotients* of *whole numbers* with up to four-digit *dividends* and two-digit *divisors*, using strategies based on:

- *Place value*
- The properties of operations
- Divisibility rules; and
- The relationship between multiplication and division

Illustrate and explain calculations by using *equations*, *rectangular arrays*, and area models

5.NBT.B.7 Perform basic operations on decimals to the hundredths place.

5.OA.A.1 Use *grouping symbols* including parentheses, brackets, or braces in numerical *expressions*, and evaluate *expressions* with these symbols

5.OA.A.2 Write simple *expressions* that record calculations with numbers, and interpret numerical *expressions* without evaluating them

Fourth Nine Weeks

Number & Operations in Fractions/Measurement & Data

5.NF.A.1 Efficiently, accurately, and with some degree of flexibility, add and subtract *fractions* with unlike *denominators* (including mixed numbers) using equivalent *fractions* and common *denominators*

5.NF.A.2 Solve word problems involving addition and subtraction of *fractions* referring to the same whole, including cases of unlike *denominators*

5.NF.B.3 Interpret a *fraction* as division of the *numerator* by the *denominator* ($a/b = a \div b$), where *a* and *b* are natural numbers

5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a *fraction* or whole number by a *fraction*

5.NF.B.5 Interpret multiplication as scaling (resizing), by:

Comparing the size of a *product* to the size of one *factor* on the basis of the size of the other *factor*, without performing the indicated multiplication

5.NF.B.6 Solve real world problems involving multiplication of *fractions* and mixed numbers

5.NF.B.7 Apply and extend previous understandings of division to divide *unit fractions* by *whole numbers* and *whole numbers* by *unit fractions*

5.MD.A.1 Convert among different-sized standard measurement units within the metric system

5.MD.B.2 Make a *line plot* to display a data set of measurements in *fractions* of a unit (1/2, 1/4, 1/8)

Use operations on *fractions* for this grade to solve problems involving information presented in *line plots*

5.MD.C.3 Recognize volume as an *attribute* of solid figures and understand concepts of volume measurement

5.MD.C.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units

5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume