# MATH Quarter 4

| Math Quarter 4 | | | |
|---|---|---|---|
| *Essential Skill Component* | *Standard* | *Sub-components* | *Quarterly Focus* |
| Mathematical Reasoning | | | |
| Applies strategies to solve problems | Embedded throughout 3rd grade Common Core Standards for Mathematics | | all 4 quarters |
| Communicates mathematical thinking | Embedded throughout 3rd grade Common Core Standards for Mathematics and Language Arts | | all 4 quarters |
| Operations and Algebraic Thinking | | | |
| Multiplies whole numbers | 3.OA.1 | | Understands products of whole numbers as the total number of objects in a group (ex: 5 groups of 7 objects equals 35 objects) |
| Divides whole numbers | 3.OA.2 | | Understands quotients of whole numbers as the total number of objects shared into equal groups (ex: 35 objects shared equally into 5 groups equals 7 objects in each group) |
| Solves problems involving multiplication and division. | 3OA.4, 3.OA.5, 3.OA.6, 3.OA.7 | | **Problem Solving:** Determines the unknown number in an multiplication or division equation<br><br>**Multiplication Properties:** Applies multiplication properties<br><br>**Fluency:** Multiplies and divides fluently within 100 *4th quarter mastery |
| Solves word problems using the four operations. | 3.OA.3, 3.OA.8 | | **Problem Solving:** Solves problems using multiplication and division within 100 in situations involving equal groups, arrays, and measurement quantities (Use manipulatives, drawings, stickers,etc., to illustrate and solve a problem)<br><br>Solves two step word problems using the four operations, represent the problems using equations with letters standing for the unknown quantity, assess the reasonableness of answers using mental computation and estimation strategies including rounding |
| Identifies and explains patterns | 3.OA.9 | | Identifies and uses patterns and explain them using the properties of operations<br><br>Examples: 4 times a number is always even, the sum of two odd numbers is always an even number, when one factor is 5, the product always ends in 5 or 0 |
| Number Sense and Operations in Base Ten | | | |
| Demonstrates understanding of place value | 3.NBT.A.3 | | All 4 quarters |
| Rounds whole numbers to the nearest 10 or 100 | 3.NBT.A.1 | | All 4 quarters |
| Adds and subtracts whole numbers | 3.NBT.A.2 | | All 4 quarters |
| Number Sense and Operations - Fractions | | | |
| Represents fractions as numbers on a number line | 3.NF.A.1, 3.NF.A.2 | 3.NF.2a, 3.NF.2b | Represents fractions on a number line between the values of 0 and 1 in halves, thirds, and fourths<br><br>Represents fractions with changing numerators (1/4, 2/4, 3/4) and changing denominators (1/2, 1/3, 1/4) |

# MATH Quarter 4

| | | | |
|---|---|---|---|
| Recognizes equivalent fractions | 3.NF.A.3 | 34.NF.3a, 3.NF.3b, 3.NF.3c, 3.NF.3d | Understands equivalent fractions are on the same point on a number line |
| | | | Understands that whole numbers are also fractions (2/2 = 1) |
| | | | Creates simple equivalent fractions using a model (fraction bars, etc.) |
| | | | Compares fractions with same numerator or denominator using >,<, or = (may use models) |
| <mark>Measurement and Data</mark> | | | |
| Tells and writes time to the nearest minute | 3.MD.1 | | All 4 quarters - number lines and/or diagrams may be used |
| Solves word problems involving addition and subtraction of time | 3.MD.1 | | All 4 quarters - number lines and/or diagrams may be used |
| Measures and estimates volumes and masses (metric units) | 3.MD.2 | | Solves 1-step word problems using metric units (grams. kilograms, liters) |
| Draws a picture graph and bar graph to represent data | 3.MD.3 | | Creates bar graphs and picture graphs to represent data in several categories |
| Solves one and two-step word problems using information from graphs | 3.MD.3 | | Solves 1 and 2 step problems based on the information in the graph |
| Measures lengths to 1/2 and 1/4 of an inch | 3.MD.4 | | Measures in inches to the halves, and fourths on a ruler then represent the data on a line plot |
| Finds area of figures by counting units or by multiplying | 3.MD.5, 3.MD.6, 3.MD.7 | 3.MD.5a, 3.MD.5b, 3.MD.7a, 3.MD.7b, 3.MD.7c, 3.MD.7d | Determines area of regular and irregular rectangular figures by counting square units (counting or tiles), or through the use of multiplication and/or addition, using appropriate labels (improvised square units, sq. cm, sq. m, sq. in, sq. ft.) |
| | | | Uses the distributative property to find area  (ex: 6 (length) X (2+3) (width)=30, is the same as (6X2) + (6X3) =30 |
| Solves problems involving perimeters | 3.MD.8 | | Solves problems finding perimeters of polygons with sides of known and unknown lengths |
| <mark>Geometry</mark> | | | |
| Recognizes attributes of various shapes | 3.G.1, 3.G.2 | | Understands shapes in different categories (square, rectangle, rhombus) can also belong in  larger categories with similar attributes (quadrilaterals) |
| | | | Represents fractions by partitioning whole shapes into equal parts |