5th Grade Math

Quarter 1 Standards

1. **5.M.NBT.A.01:** The Highly Proficient student can apply concepts of place value, multiplication, and division to understand 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.
2. **5.M.NBT.A.02:** The Highly Proficient student can explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.
3. **5.M.NBT.A.03**: The Highly Proficient student can read, write, and compare decimals to the thousandths.
4. **5.M.NBT.A.04**: The Highly Proficient student can round decimals to any place. The Highly Proficient student can explain how they used place value understanding to round decimals to any place.
5. **5.M.NBT.B.05:** The Highly Proficient student can fluently multiply multi-digit whole numbers using a standard algorithm. The Highly Proficient student can explain how to use a standard algorithm to multiply multi-digit whole numbers.
6. **5.M.NBT.B.06**: The Highly Proficient student can apply and extend understanding of division to find whole-number quotients of whole numbers with more than four-digit dividends and two-digit divisors.
7. **5.M.NBT.B.07**: The Highly Proficient student can add, subtract, multiply, and divide decimals to hundredths and relate the strategy to a written form. The Highly Proficient student can apply this to real-world context.

Quarter 2 Standards

1. **5.M.NF.A.01**: The Highly Proficient student can add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions and explain the process.
2. **5.M.NF.A.02:** The Highly Proficient student can create and solve word problems involving adding and subtracting of fractions with unlike denominators. The Highly Proficient student can explain how to estimate mentally and assess the reasonableness of answers.

3. **5.M.NF.B.03:** The Highly Proficient student can explain how the division of whole numbers results in answers in the form of fractions. The Highly Proficient student can create word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.
4. **5.M.NF.B.04a:** The Highly Proficient student can apply and extend previous understandings of multiplication to multiply a fraction by a whole number and a fraction by a fraction. a. Interpret the product (a/b) x q as a parts of a partition of q into b equal parts. *For example, use a visual fraction model to show (2/3) x 4 = 8/3, and create a story context for this equation.*
5. **5.M.NF.B.04b:** The Highly Proficient student can apply and extend previous understandings of multiplication to multiply a fraction by a whole number and a fraction by a fraction. b. Interpret the product of a fraction multiplied by a fraction (a/b) x (c/d). Use a visual fraction model and create a story context for this equation. For example, use a visual fraction model to show (2/3) x (4/5) = 8/15, and create a story context for this equation. In general, (a/b) x (c/d) = ac/bd.
6. **5.M.NF.B.05:** The Highly Proficient student can interpret multiplication as scaling by comparing the size of the product to the size of one factor.
7. **5.M.NF.B.06:** The Highly Proficient students can solve and create real-world problems in context involving multiplication of fractions and mixed numbers.
8. **5.M.NF.B.07:** The Highly Proficient student can solve, model, and create real-world division problems using fractions.

Quarter 3 Standards

1. **5.M.G.A.01:** The Highly Proficient student can understand and describe a coordinate system as perpendicular number lines, called axes, that intersect at the origin (0 , 0). Identify a given point in the first quadrant of the coordinate plane using an ordered pair of numbers, called coordinates. Understand that the first number (x) indicates the distance traveled on the horizontal axis, and the second number (y) indicates the distance traveled on the vertical axis.
2. **5.M.G.A.02:** The Highly Proficient student can use real-world data to create a representation and draw conclusions based on the data presented.
3. **5.M.G.B.03**: The Highly Proficient student can draw or construct specific two-dimensional figures according to its definitions, attributes, or categories. The Highly Proficient student can explain why attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.

4. **5.M.G.B.04:** The Highly Proficient student can classify and draw or construct two-dimensional figures in the hierarchy based on properties.
5. **5.M.MD.C.03:** The Highly Proficient student can recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
6. **5.M.MD.C.04:** The Highly Proficient student can measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
7. **5.M.MD.C.05:** The Highly Proficient student can compare the volumes of different rectangular prisms and create real world mathematical situations involving volume.
8. **5.M.NF.B.04c:** The Highly Proficient student can find the area of a rectangle with fractional side lengths by tiling it with unit squares and explain the process.
9. **5.M.OA.A.01:** The Highly Proficient student can use parentheses and brackets to create multiple numerical expressions equivalent to a given value.
10. **5.M.OA.A.02:** The Highly Proficient student can write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them (e.g., express the calculation "add 8 and 7, then multiply by 2" as 2 x (8 + 7). Recognize that 3 x (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product).
11. **5.M.OA.B.03:** The Highly Proficient student can generate two numerical patterns using two multi-step rules and explain their relationships between corresponding terms.

Quarter 4 Standards

1. **5.M.MD.A.01**: The Highly Proficient student can create and solve real world word problems and choose the appropriate measurement.
2. **5.M.MD.B.02:** The Highly Proficient student can create a line plot to display data and solve word problems involving line plots to interpret the solution as data.