NUMBER SENSE (NS) *Students understand and use scientific notation and square roots. They convert between fractions and decimals.*	
2017	**Standard**
MA.7.NS.1	Compare and solve problems using whole numbers in scientific notation.
MA.7.NS.2	Compare and order rational and common irrational numbers and place them on a number line.
MA.7.NS.3	Identify rational and common irrational numbers from a list.
MA.7.NS.4	Understand and apply the concept of square root of a whole number, a perfect square and an imperfect square.
MA.7.NS.5	Convert terminating and repeating decimals into reduced fractions.
MA.7.NS.6	Know that every rational number is either a terminating or repeating decimal and that every irrational number is a non-repeating decimal.
MA.7.NS.7	Use the inverse relationship between squaring and finding the square root of a perfect square integer.

COMPUTATION (C) *Students solve problems involving integers, fractions, decimals, ratios and percentages.*	
2017	**Standard**
MA.7.C.1	Solve addition, subtraction, multiplication, and division problems that use integers, fractions & decimals.
MA.7.C.2	Calculate the percentage increase and decrease of a quantity.
MA.7.C.3	Solve problems that involve discounts, markups, commissions, taxes and tips.
MA.7.C.4	Use estimation to decide whether answers are reasonable in problems involving fractions and decimals.
MA.7.C.5	Use mental arithmetic to compute with simple fractions, decimals, and powers.

ALGEBRA AND FUNCTIONS (AF)

Students express quantitative relationships using algebraic terminology, expressions, equations, inequalities and graphs.

2017	Standard
MA.7.AF.1	Use correct algebraic terminology such as variable, equation, term, like terms, coefficient, inequality, expression, and constant.
MA.7.AF.2	Use variables and appropriate operations to write an expression, a formula, an equation, or an inequality that represents a verbal description.
MA.7.AF.3	Write and solve two-step linear equations and inequalities in one variable, using inverse operations and the properties of equations. Check the answers.
MA.7.AF.4	Evaluate numerical expressions and simplify algebraic expressions by applying the correct order of operations and the properties of rational numbers (e.g., identify, inverse, commutative, associative, distributive). Justify each step in the process.
MA.7.AF.5	Solve an equation or formula with two variables for a particular variable.
MA.7.AF.6	Solve the problems involving linear functions with integer values. Write the equation and graph the resulting ordered pairs of integers on a coordinate plane.
MA.7.AF.7	Investigate how a change in one variable relates to a change in a second variable.
MA.7.AF.8	Identify constant or varying rates of change and know that a constant rate of change describes a linear function.

GEOMETRY (G) *Students deepen their understanding of plane and solid geometric shapes by constructing shapes that meet given conditions and by identifying attributes of shapes.*	
2017	**Standard**
MA.7.G.1	Understand coordinate graphs and use them to plot simple shapes, find lengths and areas related to the shapes and find images under translations (slides), rotations (turns), and reflections (flips).
MA.7.G.2	Understand that transformations such as slides, turns, and flips preserve the length of segments, and that figures resulting from slides, turns, and flips are congruent to the original figures.
MA.7.G.3	Know and understand the Pythagorean Theorem and use it to find the length of the missing side of a right triangle. Use direct measurement to test conjectures about triangles.
MA.7.G.4	Construct two-dimensional patterns (nets) for three-dimensional objects, such as right prisms, pyramids, cylinders, and cones.

MEASUREMENT (M) *Students compare units of measure and use similarity to solve problems. They compute the perimeter, area and volume of common geometric objects and use the results to find measures of less regular objects.*	
2017	**Standard**
MA.7.M.1	Compare lengths, areas, volumes, weights, capacities, times, and temperatures within measurement systems.
MA.7.M.2	Use experimentation and modeling to visualize similarity problems. Solve problems using similarity.
MA.7.M.3	Read and create drawings made to scale, construct scale models, and solve problems related to scale, using proportion
MA.7.M.4	Use formulas for finding the perimeter and area of basic two-dimensional shapes and the surface area and volume of basic three-dimensional shapes, including rectangles, parallelograms, trapezoids, triangles, circles, right prisms, and cylinders.
MA.7.M.5	Estimate and compute the area of more complex irregular two-dimensional shapes by dividing them into more basic shapes.
MA.7.M.6	Students will use concrete materials to build a 3-dimensional object, using it to compute the surface area of the faces and the volume of the three-dimensional object.

DATA ANALYSIS AND PROBABILITY (DP)

Students collect, organize and represent data sets and identify relationships among variables within a data set. They determine probabilities and use them to make predictions about events.

2017	Standard
MA.7.DP.1	Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots, and justify the choice of display.
MA.7.DP.2	Make predictions from statistical data.
MA.7.DP.3	Describe how additional data, particularly outliers, added to a data set may affect the mean, median, mode and range.
MA.7.DP.4	Analyze data displays, including ways that they can be misleading. Analyze ways in which the wording of questions can influence survey results.
MA.7.DP.5	Know that if P is the probability of an event occurring, then 1 – P is the probability of that event not occurring.
MA.7.DP.6	Understand that the probability of either one or the other of two disjoint events occurring is the sum of the two individual probabilities.
MA.7.DP.7	Find the number of possible arrangements of several objects using a tree diagram.
MA.7.DP.8	Understand the meaning of, and be able to identify or compute the minimum value, the lower quartile, the median, the upper quartile, the interquartile range and the maximum value of a data set. Use these values to construct a box or whisker plot.