**6th Grade Math Pacing Guide 2018-2019**

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| **DATES** | **CONCEPT** | **I CAN!s** | **STANDARDS** | **FOCUS DOMAINS** |
| 8/27-9/19/18  (17 days) | Ordering & Comparing Integers  GCF/LCM  Comparing & Ordering Rational Numbers | 6.2, 6.3  6.5  6.6 | 6 NS 4  6 NS 5, 6  6 NS 7, 8 | THE NUMBER SYSTEM |
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| 9/20-10/17/18  (19 days) | Mixed Numbers & Fractions  Decimal Operations | 6.1  6.3  6.4 | 6 NS 2, 3  6 NS 4  6 NS 1 |
| **Milestone #1 Window 10/22-11/5/18 I CAN!s: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6**  **Data Day 11/13/2018** | | | | |
| 10/18-11/9/18  (16 days) | Ratios & Rates  Data: Tables & Graphs  Measurement Conversions  Percents, Fractions & Decimals | 6.7  6.8 | 6 RP 1-3 a, b  6 RP 3c | RATIOS & PROPORTIONS |
| 11/14-12/14/18  (18 days) | Exponents & Order of Operations  Prime Factorization  Algebraic Expressions & Equivalence | 6.9  6.10 | 6 EE 1-4  6 EE 5-8 | EXPRESSIONS & EQUATIONS |
| 1/7-2/1/19  (19 days) | Equations & Inequalities  The Coordinate Plane | 6.11  6.12 | 6 EE 9  6 G 1-4 |
| **Milestone #2 (1/14-1/25/19) I CAN!s: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10**  **Data Day 2/15/2019** | | | | |
| 2/4-3/1/19  (18 days) | Area of Polygons  Distance & Polygons in the Coordinate Plane  Nets & Surface Area  Volume | 6.12 | 6 G 1-4 | GEOMETRY |
| **Milestone #3 Window (3/18-3/29/19) I CAN!s: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12**  **Data Day 4/5/2019** | | | | |
| 3/4-3/29/19  (20 days) | Measures of Central Tendency  Box Plots & Data | 6.13 | 6 SP 1-5 | STATISTICS |
| 4/1-5/10/19 | **CAASPP Prep & Testing** | | | |
| 5/13-6/13/19  (23 days) | **I CAN! Review**  **Onramp to Next Grade**  **Demonstration of Mastery** | | | |

6th Grade Math I CAN!s and CAN I?s

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|  | **I CAN!s** | **CAN I?s** |
| 6.1 | I CAN add, subtract, multiply and divide whole numbers and decimals.  *(supporting I CAN)*  NS 2, 3 | * Describe decimals using place value? * Know the algorithm for multiplying and dividing decimals? * Know the algorithm for adding and subtracting decimals? * Read decimal numbers using math language? * Solve real world problems with decimals? |
| 6.2 | I CAN find the Greatest Common Factor and Least Common Multiple of two whole numbers and use them to solve problems with fractions.  *(supporting I CAN)*  NS 4a | * Explain the difference between a prime and composite number? * List the first 10 prime numbers? * Describe how to know the factors of numbers? * Find common multiples of two or more numbers? * Find common factors of two or more numbers? |
| 6.3 | I CAN know and apply the Distributive Property.  *(supporting I CAN)*  NS 4b | * Find common factors of numbers? * Explain order of operation rules? * Express a sum of two numbers as multiples with a common factor? Ex. 36 + 8 = 4 (9 + 2) * Know the difference between a common factor and the greatest common factor? * Use the Distributive Property to solve real world problems? |
| 6.4 | I CAN multiply and divide fractions and solve word problems involving fractions using a visual model or drawing.  NS 1 | * Compute the quotient of fractions within word problems? * Divide a fraction by a fraction? * Use fraction models to explain how to compute with fractions? * Explain the relationship between multiplication and division of fractions? * Use an equation to represent a problem involving fractions? |
| 6.5 | I CAN understand the relationship among positive numbers, negative numbers, and zero then use a number line to show number value.  NS 5, 6 | * Give real world examples of using positive and negative number values? * Explain the meaning of zero? * Locate rational numbers on a number line? * Locate all quadrants of the coordinate plane (I, II, III, IV)? * Find points in the coordinate plane with negative number coordinates? |
| 6.6 | I CAN find the absolute value of numbers and use it to find the distance between points in a coordinate plane and the sums of rational numbers.  NS 7, 8 | * Find the absolute value of numbers? * Find the distance between two numbers using absolute value? * Find the distance between numbers in a coordinate plane? * Order absolute value of rational numbers? * Graph points in all four quadrants of the coordinate plane? |
| 6.7 | I CAN understand ratio concepts, ratio language and use reasoning to solve real-world problems about ratio and rate.  RP 1-3 a, b, d | * Describe a ratio relationship between two quantities? * Explain the concept of unit rate a/b and how it relates to a ratio a:b? * Use rate language in context of a ratio relationship? * Reason about the relationship of numbers using ratios? * Distinguish between ratio, rate and unit rate? |
| 6.8 | I CAN find a percent of quantity as a rate per 100 and solve problems involving finding the whole if I am given a part and the percent.  RP 3c | * Use equations to solve real-world problems involving ratio and rate? * Use tables of equivalent ratios to solve real-world problems involving ratio and rate? * Use tape diagrams to solve real-world problems involving ratio and rate? * Use double number line diagrams to solve real-world problems involving ratio and rate? * Explain my reasoning when solving real-world problems involving ratio and rate? |
| 6.9 | I CAN apply my knowledge of rational numbers to opposite quantities, absolute value, exponents and the inverse.  EE 1-4 | * Write numerical expressions involving whole-number exponents? * Evaluate numerical expressions involving whole-number exponents? * Identify when two expressions are equivalent? Ex. y + y + y = 3y * Evaluate expressions in which letters stand for numbers? * Know and apply the order of operation rules when evaluating expressions? |
| 6.10 | I CAN solve equations and inequalities to find an unknown value and apply that knowledge to problems by writing and solving equations and drawing a diagram.  EE 5-8 | * Use substitution of values to determine whether an inequality is true? * Explain the concept of variable and use it to represent an unknown number? * Write an inequality to represent a constraint or condition in a real-world problem? * Represent solutions of inequalities using a number line diagram? * Write and solve equations using non negative rational numbers? Ex. x + p = q and px = q. |
| 6.11 | I CAN use variables to represent the relationship between two quantities and analyze that relationship using graphs and tables.  EE 9 | * Identify the independent variable and the dependent variable in an equation? * Explain the relationship between the independent and dependent variables in an equation? * Design a table to generate numerical values from an equation? * Model an equation using a graph? |
| 6.12 | I CAN use math tools and technology to solve real-world math problems with 2D and 3D shapes involving area, surface area and volume.  G 1-4 | * Find the area of triangles, quadrilaterals and polygons by composing into rectangles or decomposing into other shapes? * Find the volume of 3D figures with fractional edge lengths using unit cubes and the formula for volume? * Draw polygons in the coordinate plane using coordinates of the vertices? * Use nets made up of rectangles and triangles to represent 3D figures? |
| 6.13 | I CAN gather and analyze statistical data, summarize the related values and display data sets in plots, histograms and boxplots in relation to their context.  SPA 1-5 | * Recognize and develop statistical questions that can be measured by data? * Describe the variability within a data set? * Understand that a data distribution can be described by its center, spread and overall shape? * Explain the difference between a measure of center and a measure of variation? * Gather and analyze statistical data in the real-world? |

**Standards of Mathematical Practice (SMPs)**

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| #1 Make sense of problems and persevere in solving them. | #5 Use appropriate tools strategically. |
| #2 Reason abstractly and quantitatively. | #6 Attend to precision. |
| #3 Construct viable arguments & critique the reasoning of others. | #7 Look for and make use of structure. |
| #4 Model with mathematics. | #8 Look for and express regularity in repeated reasoning. |