**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 IntegersGCF/LCMComparing & Ordering Rational Numbers | 6.2, 6.36.56.6 | 6 NS 46 NS 5, 66 NS 7, 8 | THE NUMBER SYSTEM |
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| 9/20-10/17/18(19 days) | Mixed Numbers & FractionsDecimal Operations | 6.16.36.4 | 6 NS 2, 36 NS 46 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 & RatesData: Tables & GraphsMeasurement ConversionsPercents, Fractions & Decimals | 6.76.8 | 6 RP 1-3 a, b6 RP 3c | RATIOS & PROPORTIONS |
| 11/14-12/14/18(18 days) | Exponents & Order of OperationsPrime FactorizationAlgebraic Expressions & Equivalence | 6.96.10 | 6 EE 1-46 EE 5-8 | EXPRESSIONS & EQUATIONS |
| 1/7-2/1/19(19 days) | Equations & InequalitiesThe Coordinate Plane | 6.116.12 | 6 EE 96 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 PolygonsDistance & Polygons in the Coordinate PlaneNets & Surface AreaVolume | 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 TendencyBox 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?
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| 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?
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| 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?
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| 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?
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| 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?
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| 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?
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| 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?
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| 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?
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| 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?
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| 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.
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| 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?
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| 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?
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| 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?
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**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. |