Grade 6 Math Proficiency Scale Quarter 1

	1 – Novice	2 = Approaching	3 = Proficient	4 = Advanced
Signed Numbers	**Identifies** integers on a number line **with structured support.**	Understands **integers** by representing them on number line, ordering them **or** comparing two integers **OR** use and interpret **integers** in a real-world context.	Understands rational numbers by representing them on number line, ordering them and comparing two rational numbers **AND** use and interpret rational numbers in a real-world context. (6.NS.5, 6.NS.6a,c 6.NS.7)	Explains how to and finds the sum of any two rational numbers using a number line.
Coordinate Plane	Graphs coordinates on coordinate plane **with structure support.**	Graphs **or** uses coordinates and absolute value in the **same quadrant** to find the distances between points with the same first coordinate or the same second coordinate to solve mathematical problems.	Graphs and uses coordinates and absolute value in all four quadrants to find the distances between points with the same x-coordinates or y-coordinates to solve real-world and mathematical problems including polygons. (6.NS.6b, 6.NS.8, 6.G.3)	Not Assessed
Division	Divides numbers with a **2-digit** dividend and **1-digit** divisor **with help and support.**	Divides multi-digit numbers with a **3-digit** dividend and **1-digit** divisor using a single strategy.	Fluently divides multi-digit numbers with a 4-digit dividend and 2-digit divisor using the standard algorithm. (6.NS.2)	Compares and connects the different division strategies and describes in depth using math vocabulary.
Decimal Operations	Adds, subtracts, multiplies, **or** divides multi-digit decimals to the **tenths with help and support.**	Adds, subtracts, multiplies, **or** divides multi-digit decimals to the **hundredths** using a single strategy.	Fluently adds, subtracts, multiplies, and divides multi-digit decimals to the thousandths using the standard algorithm for each operation. (6.NS.3)	Solves multi-step real-world problems involving two or more operations of multi-digit decimals.
Makes Sense of Problems and Persevere	Solves mathematical problems **with structured support**.	Engages in mathematical problems by working to understand the questions that is asked, trying different strategies **or** identifying why their solution make sense.	Actively engages in solving real-world and mathematical problems by working to understand the information that is in the problem and the questions that is asked, trying different strategies and identifying why their solution make sense. (MP.1)	Not Assessed

Attend to Precision	Attempts to communicate work and reasoning, but math vocabulary and units are absent **AND** calculates with repeated basic computation errors.	Attempts to communicate work and reasoning using math vocabulary and units **AND** calculates with basic computation errors.	Communicates work and reasoning using math vocabulary and units **AND** calculates with little or no basic computations error. (MP. 6)	Not Assessed

Grade 6 Math Proficiency Scale Quarter 2

	1 – Novice	2 = Approaching	3 = Proficient	4 = Advanced
Division of Fractions	**Participates in the practice,** modeling the division of fractions.	Solves mathematical problems involving the division of a fraction by a fraction using a model **or** equation.	Solves real-world problems involving the division of fractions by fractions using a model and equation and interprets the quotient in the context of the problem. (6.NS.1)	Solves multi-steps real-world problems involving the division of fractions by fractions and interprets the quotient in the context of the problem.
Ratios	**Participates in the practice** of representing ratios with structure support.	Uses ratio language to describe a ratio relationship between two quantities **OR** represents ratios in a single representation.	Uses ratio language to describe a ratio relationship between two quantities including part to part and part to whole ratios **AND** solves real-world problems involving equivalent ratios using multiple representations to justify reasoning. (6.RP.1, 6.RP.3a).	Using a representation, creates a scenario and additional models to explain ratio understanding.
Unit Rates & Conversions	**Identifies** a unit rate **OR participates in the practice of** using ratio reasoning to convert measurement units **with structure support**.	Understands the concept of a unit rate and solves unit rate mathematical problems **OR** uses ratio reasoning to convert measurement units.	Understands the concept of a unit rate and solves unit rate real-world and mathematical problems **AND** uses ratio reasoning to convert measurement units. (6.RP.2, 6.RP.3b & d)	Uses proportional relationships to solve and explain multi-step unit rate problems.
Makes Sense of Problems and Persevere	Solves mathematical problems **with structured support**.	Engages in mathematical problems by working to understand the questions that is asked, trying different strategies **or** identifying why their solution make sense.	Actively engages in solving real-world and mathematical problems by working to understand the information that is in the problem and the questions that is asked, trying different strategies and identifying why their solution make sense. (MP.1)	Not Assessed
Attend to Precision	Attempts to communicates work and reasoning, but math vocabulary and units are absent **AND** calculates with repeated basic computation errors.	Attempts to communicates work and reasoning using math vocabulary and units **AND** calculates with basic computation errors.	Communicates work and reasoning using math vocabulary and units **AND** calculates with little or no basic computations error. (MP. 6)	Not Assessed

Grade 6 Math Proficiency Scale Quarter 3

	1 – Novice	2 = Approaching	3 = Proficient	4 = Advanced
Percentages	Identifies a percent as a rate **with structure support**.	Writes a percent as a rate **OR** finds the whole given the percent and a part.	Writes a percent of a quantity as a rate **AND** finds the whole given the percent and a part. (6.RP.3c)	Uses proportional relationships to solve and explain multi-step unit rate percent problems.
Area	**Participates in the practice** finding the area of a triangle, rhombus, parallelogram, kite **or** trapezoid by composing into rectangles or decomposing into triangles or other shapes.	Finds the area of a triangle, rhombus, parallelogram, kite **or** trapezoid by composing into rectangles or decomposing into triangles or other shapes.	Solves real-world problems involving area of polygons by composing into rectangles or decomposing into triangles or other shapes. (6.G.1)	**Explains** how to derive the formulas for a triangle, trapezoid **AND** parallelogram.
Nets & Surface Area	**Identifies** the nets of a right rectangular prism or right square pyramid **with structured support.**	Represents three-dimensional figures using nets made up of rectangles and triangles.	Identifies the nets of rectangular and triangular prisms and pyramids and explains how to find the surface area of right rectangular prisms or square pyramids. (6.G.4)	Solve real-world mathematical surface area problems involving composite figures consisting of right rectangular prisms and right square pyramids **AND** solve for unknown dimensions given the surface area and other dimensions.
Volume	Identifies the purpose of volume of right rectangular prism with structure support.	Describes the purpose of volume.	Explain how to find the volume of a right rectangular prism. (6.G.2)	Solve real-world mathematical volume problems involving composite figures consisting of right rectangular prisms **AND** solve for unknown dimensions given the volume and other dimensions.
Expressions	Reads or evaluates an expression involving numbers, using a single operation **with help and support.**	Writes, reads **or** evaluates expressions involving exponents, numbers, and variables using order of operations.	Writes, reads and evaluates expressions involving exponents, numbers, and variables using order of operations. (6.EE.1 & 2)	

Equivalent Expressions	Applies a property of operations to generate equivalent expressions **with help and support.**	Applies the properties of operations to generate equivalent expressions **OR** identifies when two expressions are equivalent.	Applies the properties of operations to generate equivalent expressions **AND** identifies when two expressions are equivalent. (6.EE.3, 6.EE.4)	Apply properties of operations as strategies to add, subtract, factor and expand linear expressions with rational coefficients.
Makes Sense of Problems and Persevere	Solves mathematical problems **with structured support**.	Engages in mathematical problems by working to understand the questions that is asked, trying different strategies **or** identifying why their solution make sense.	Actively engages in solving real-world and mathematical problems by working to understand the information that is in the problem and the questions that is asked, trying different strategies and identifying why their solution make sense. (MP.1)	Not Assessed
Attend to Precision	Attempts to communicates work and reasoning, but math vocabulary and units are absent **AND** calculates with repeated basic computation errors.	Attempts to communicates work and reasoning using math vocabulary and units **AND** calculates with basic computation errors.	Communicates work and reasoning using math vocabulary and units **AND** calculates with little or no basic computations error. (MP.6)	Not Assessed

Grade 6 Math Proficiency Scale Quarter 4

	1 – Novice	2 = Approaching	3 = Proficient	4 = Advanced
Equations	**Participates in the practice of** solving one-step equations **with help and support.**	Uses substitution to determine whether a given number makes an equation true **OR** solves mathematical one-step equations when all variables are non-negative, **integers**.	Uses substitution to determine whether a given number makes an equation true (6.EE.5) **AND** writes and solves real-world and mathematical one-step equations when all variables are non-negative, rational numbers. (6.EE.6, 6.EE.7)	Solves real-world problems leading to two-step equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers.
Inequalities	Identifies the graph of an inequality of the form $x > c$ or $x < c$ on a number line with structure support.	Writes **or** represent on a number line an inequality to represent a situation of a real-world or mathematical problem.	Writes and represent on a number line inequalities to represent a situation of a real-world or mathematical problem. (6.EE.8)	Solves real-world problems leading to equations of the form $px + q > r$ and $px + q < r$, where p, q, and r are specific rational numbers.
Data Displays	Identifies the different numerical data displays **with structured support.**	**Identifies** overall shape of a data set that answers statistical questions **OR** displays numerical data in dot plots, histograms, **or** box plots	Understands overall shape of a data set that answers statistical questions **AND** displays numerical data in dot plots, histograms, and box plots (6.SP.1, 6.SP.2 6.SP.4)	
Data Calculations	Calculates a quantitative measures of center (median, mean, or mode) **or** variability (range, interquartile range, mean absolute deviation) **with structure support.**	Calculates quantitative measures of center (median, mean, and mode) **or** variability (range, interquartile range, mean absolute deviation) **OR** describe surface features and calculations in relation to the context of the data set or numerical display.	Understands and calculates quantitative measures of center (median, mean, and mode) and variability (range, interquartile range, mean absolute deviation) **AND** describe surface features and calculations in relation to the context of the data set or numerical display. (6.SP.3, 6.SP.5)	Draws multiple inferences about the measures of center and variability when comparing two different box plots or histograms.
Makes Sense of Problems	Solves mathematical problems **with structured support.**	Engages in mathematical problems by working to understand the questions that is asked, trying different strategies **or** identifying why their solution make sense.	Actively engages in solving real-world and mathematical problems by working to understand the information that is in the problem and the questions that is asked, trying different strategies and identifying why their solution make sense. (MP.1)	Not Assessed

Attend to Precision	Attempts to communicates work and reasoning, but math vocabulary and units are absent **AND** calculates with repeated basic computation errors.	Attempts to communicates work and reasoning using math vocabulary and units **AND** calculates with basic computation errors.	Communicates work and reasoning using math vocabulary and units **AND** calculates with little or no basic computations error. (MP.6)	Not Assessed