Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

Quarter 1

Standards for Mathematical Practice

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

CC.2.1.6.E.2 Identify and choose appropriate processes to compute fluency with multi-digit numbers. (PA Core- NWEA)

The Number System	6.NS.2	Fluently divide multi-digit numbers using the standard algorithm.	**Reveal** Module 3 Compute with Multi-digit Numbers and Fractions (approx. 20 days)
	6.NS.3	Fluently add, subtract, multiply and divide multi-digit decimals using the standard algorithm for each operation.	

CC.2.1.6.E.1 Apply and extend previous understandings of multiplication and division to divide fractions, mixed numbers and whole numbers. (PA Core – NWEA)

The Number System	6.NS.1	Interpret and compute quotients of fractions and solve word problems involving fractions by fractions. Use visual faction models to represent the problem. *Example: create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient. How much chocolate will each person get if 3 people share ½ lb. of chocolate equally? How wide is a rectangular strip of land with length ¾ mi. and area ½ square mi.?*	**Reveal** Module 3 cont.Compute with Multi-digit Numbers and Fractions (approx. 20 days)

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

CC.2.4.6.B.1 Demonstrate an understanding of statistical variability by displaying, analyzing and summarizing distributions. (PA Core- NWEA)		
Statistics and Probability (Mean, median, mode, range only)	6.SP.2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
	6.SP.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.
CC.2.1.6.E.3 Develop and/or apply number theory concepts to find common factors and multiples. (PA Core-NWEA)		
The Number System	6.NS.4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

Quarter 2

Standards for Mathematical Practice

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

CC.2.1.6.D.1 Understand ratio concepts and use ratio reasoning to solve problems. (PA Core-NWEA)

Ratios and Proportional Relationships	**6.RP.1**	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *Example: The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.*
	6.RP.2	Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship. *Example: This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar.*
	6.RP.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. A. Make tables of equivalent ratios relating quantities with whole-number measurements; find missing values in the tables and plot pairs of values on coordinate plane. Use tables to compare ratios. B. Solve unit rate problems including those involving unit pricing and constant speed.

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

		Example: If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns mowed? C. Find a percent of quantity as a rate per 100; solve problems involving finding the whole, given a part and the percent *Example: 30% of a quantity means 30/100 times the quantity. What is 45% of 90? What percent is 30 of 140?* D. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. *Example: How many centimeters are in 5 meters?* *5m/1 x 100cm/1m = 500cm/1 = 500cm*
CC.2.1.6.E.4 Apply and extend previous understandings of numbers to the system of rational numbers (PA Core – NWEA)		
The Number System	**6.NS.5**	Understand that **positive and negative numbers** are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situations.
	6.NS.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. A. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, and that zero is its own opposite. B. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

		C Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
	6.NS.7	Understand ordering and absolute value of rational numbers. Example: Interpret -3 > -7 as a statement that -3 is located to the right of -7 on a number line oriented from left to right. A. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. B. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *Example:* *Write -3 °C > -7 °C to express the fact that* *-3 °C is warmer than -7 °C.* C. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *Example: For an account balance of -30 dollars, write $\|-30\| = 30$ to describe the size of the debt in dollars.* D. Distinguish comparisons of absolute value from statements about order. Example: -30 dollars represents a debt greater than 30 dollars.
	6.NS.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

Quarter 3

Standards for Mathematical Practice

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

CC.2.2.6.B.1 Apply and extend pervious understandings of arithmetic to algebraic expressions. (PA Core – NWEA)

Expressions and Equations	**6.EE.1**	Write and evaluate numerical expressions involving whole-number exponents.
	3.EE.2	Write, read, and evaluate expressions in which letters stand for numbers. A Write expressions that record operations with numbers and with letters standing for numbers. *Example: Express the calculation "Subtract y from 5" as 5-y.* B Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. C Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
	6.EE.3	Apply the properties of operations to generate equivalent expressions. *Example: Apply the distributive property to the expression 3(2+x) to produce the equivalent expression 6+3x. Apply the distributive property to the expression 24x+18y to produce the equivalent expression 6(4x+3y). Apply properties of operations to y+y+y to produce the equivalent expression 3y.*

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

	6.EE.4	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *Example: y+y+y and 3y are equivalent because they name the same number regardless of which number y stands for.*
CC.2.2.6.B.2 Understand the process of solving a one-variable equation or inequality and apply to real-world and mathematical problems (PA Core – NWEA)		
Expressions and Equations	**6.EE.5**	Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. *Example: Use the formulas $V=s^3$ and $A=6s^2$ to find the volume and surface area of a cube with sides of length s=1/2.*
	6.EE.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	6.EE.7	Solve real-world and mathematical problems by writing and solving equations of the form x+p=q and px=q for cases in which p, q & x are all nonnegative rational numbers.
	6.EE.8	Write an inequality of the form x < c or x > c to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequality of the form x > c or x < c has infinitely many solutions; represent solutions of such inequalities on the number line diagrams.

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

Quarter 4

Standards for Mathematical Practice

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

CC.2.3.6.A.1 Apply appropriate tools to solve real-world and mathematical problems involving area, surface area and volume (PA Core – NWEA)

Geometry	6.G.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
	6.G.2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = l w h and V = b h to find volumes of right rectangular prisms with factional edge lengths in the context of solving real-world and mathematical problems.
	6.G.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
	6.G.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Essential Standard - Standard should be taught in depth – These are the major work of the grade level

Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

CC.2.4.6.B.1 Demonstrate an understanding of statistical variability by displaying, analyzing and summarizing distribution. (PA Core – NWEA)		
Statistics and Probability	6.SP.4	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answer. *Example: "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
CC.2.2.6.B.3 Represent and analyze quantitative relationships between dependent and independent variables (PA Core- NWEA)		
Expressions and Equations	6.EE.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *Example: In a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation* *$d = 65t$ to represent the relationship between distance and time.*