Iowa Core Domains (Blue Print)	
Iowa Core Standards (Red Print)	
Iowa Core Standards Clusters	**UCSD I Can Statement for Iowa Core**
Ratios and Proportional Relationships	
Understand ratio concepts and use ratio reasoning to solve problems.	
1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.(6.RP.1) DOK 1, 2	**I can construct and interpret ratios to compare two quantities.**
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. (6.RP.2) DOK 1,2	**I can recognize the concept of a unit rate.** **I can interpret unit rates in a real world problem.**
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. (6.RP.3) DOK 1,2	**I can construct tables to compare equivalent ratios.** I can compare unit rates to solve real world problems. I can tabulate a percent of a quantity as a rate per 100. I can find an original number if given a part and percent.
Number System	
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	
1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. (6.NS.1) DOK 1,2	**I can calculate division of fractions.** **I can interpret when to use division of fractions in solving word problems.**
Compute fluently with multi-digit numbers and find common factors and multiples.	
2. Fluently divide multi-digit numbers using the standard algorithm. (6.NS.2) DOK 1	I can divide multi-digit numbers.
3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. (6.NS.3) DOK 1	I can add and subtract multi-digit decimals. I can multiply and divide multi-digit decimals.
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. (6.NS.4) DOK 1	I can find the greatest common factors of two whole numbers. I can find the least common multiple of two whole numbers less than or equal to 12. I can use the distributive property to find the sum of two whole numbers less than or equal to 100.
Apply and extend previous understandings of numbers to the system of rational numbers.	
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 situation. (6.NS.5) DOK 1,2	**I can use integers to describe opposites.** **I can interpret integers to represent real world situations.**
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. (6.NS.6) DOK 1	I can use a number line to locate integers and rational numbers. I can graph integers and rational numbers on a coordinate grid.
7. Understand ordering and absolute value of rational numbers. (6.NS.7) DOK 1,2	I can compare integers and rational numbers using a number line. I can interpret absolute value in real world situations. I can compare integers using absolute value.
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. (6.NS.8) DOK 1,2	I can tabulate the distance between points on a coordinate grid with the same first coordinate or the same second coordinate.

Expressions and Equations	
Apply and extend previous understandings of arithmetic to algebraic expressions.	
1. Write and evaluate numerical expressions involving whole-number exponents. (6.EE.1) DOK 1	I can write a numerical expression. **I can calculate a numerical expression.**
2. Write, read, and evaluate expressions in which letters stand for numbers. (6.EE.2) DOK 1, 2	**I can write an expression using variables.** **I can calculate an expression that includes a variable(s).** **I can apply the order of operations to solve a problem.**
3. Apply the properties of operations to generate equivalent expressions. For 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. (6.EE.3) DOK 1, 2	**I can combine like-terms to simplify an expression into an equivalent expression.**
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). (6.EE.4) DOK 1	I can identify when two expressions are equal.
Reason about and solve one-variable equations and inequalities.	
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. (6.EE.5) DOK 1	**I can replace a variable with a given number and solve an equation or inequality.**
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.6) DOK 1,2	**I can construct an expression using variables to solve a real world problem and explain what the variable represents.**
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 and x are all nonnegative rational numbers. (6.EE.7) DOK 1,2	**I can write equations to solve real world problems.**
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 inequalities of the form x > c or x < c have infinitely many solutions; represent solutions of such inequalities on number line diagrams. (6.EE.8) DOK 1,2	I can construct an inequality to solve a real world problem. I can graph an inequality on a number line.
Represent and analyze quantitative relationships between dependent and independent variables.	
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. (6.EE.9) DOK 1,2,3	I can use variables to represent two quantities. I can formulate equations with dependent and independent variables. I can graph an equation on a coordinate plane.
Geometry	
Solve real-world and mathematical problems involving area, surface area, and volume.	
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.1) DOK 1,2	**I can find the area of a rectangle.** I can relate how the formula for the area of a rectangle is used in finding areas of triangles and other quadrilaterals. **I can apply formulas to find area of real world problems.**
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 fractional edge lengths in the context of solving real-world and mathematical problems. (6.G.2) DOK 1,2	**I can find the volume of a rectangular prism.** **I can apply the formula of a prism to find volume of real world problems.**
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.3) DOK 1,2	I can graph the verticies of a polygon on a coordinate grid to draw the polygon. I can apply the distance on coordinate grid to solve real world problems.

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. (6.G.1) DOK 1,2	I can construct a net to find surface area of rectangular and triangular three dimensional figures to solve real world problems.
Statistics and Probability	
Develop understanding of statistical variability.	
1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. (6.SP.1) DOK 1	I can identify the difference between a question and a statistical question.
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.2) DOK 1,2	I can describe the center and spread of a set of data.
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. (6.SP.1)	**I can calculate the mean, median, mode, and range of a set of data.**
Summarize and describe distributions.	
4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots. (6.SP.4) DOK 1,2	I can display data using a number line, dot plots, histograms, and box plots.
5. Summarize numerical data sets in relation to their context. (6.SP.5) DOK 1,2,3	I can interpret different forms of data using a number line, dot plots, frequency table, and box plot.
Standards of Mathematical Practice	

Make sense of problems and persevere in solving them.
Reason abstractly and quantitatively.
Construct viable arguments and critique the reasoning of others.
Model with mathematics.
Use appropriate tools strategically.
Attend to precision.
Look for and make use of structure.
Look for and express regularity in repeated reasoning.