Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**EE**) Expressions and Equations Grade 8, Standard 1	Work with radicals and integer exponents.	Know and apply the properties of integer exponents to generate equivalent numerical expressions.	***8.EE.1 Use Integer Exponents to Generate Equivalent Expressions*** <STUDENT> will use the properties of integer exponents to generate equivalent numerical expressions <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**EE**) Expressions and Equations Grade 8, Standard 2	Work with radicals and integer exponents.	Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.	***8.EE.2 Use Square Root Symbols*** <STUDENT> will use square root symbols to represent solutions to equations of the form $x^2 = p$ where p is a positive rational number <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.EE.2 Use Cube Root Symbols*** <STUDENT> will use cube root symbols to represent solutions to equations of the form $x^3 = p$, where p is a positive rational number <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.EE.2 Evaluate Square Roots/Cube Roots*** <STUDENT> will evaluate square roots of small perfect squares and cube roots of small perfect cubes and understand that √2 is irrational <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**EE**) Expressions and Equations Grade 8, Standard 5	Understand the connections between proportional relationships, lines, and linear equations.	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance/ time; graph to a distance-time equation to determine which of two moving objects has greater speed.	***8.EE.5 Graph Relationships, Interpret Rate as Slope*** <STUDENT> will graph proportional relationships, interpreting the unit rate as the slope of the graph <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.EE.5 Compare 2 Different Proportional Relationships*** <STUDENT> will compare two different proportional relationships represented in different ways <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**EE**) Expressions and Equations Grade 8, Standard 6	Understand the connections between proportional relationships, lines, and linear equations.	Use similar triangles to explain why the slope m is the same between any two distinct points on a nonvertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.	***8.EE.6 Explain Slope using Similar Triangles*** <STUDENT> will use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.EE.6 Describe Equation y=mx*** <STUDENT> will describe the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**EE**) Expressions and Equations Grade 8, Standard 7	Analyze and solve linear equations and pairs of simultaneous linear equations.	Solve linear equations in one variable. a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form x = a, a = a, or a = b results (where a and b are different numbers). b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	***8.EE.7 Examples of One Variable Linear Equations*** <STUDENT> will provide examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions, and show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form x = a, a = a, or a = b results <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.EE.7 Solve Linear Equations*** <STUDENT> will solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions, using the distributive property and collecting like terms <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**EE**) Expressions and Equations Grade 8, Standard 8	Analyze and solve linear equations and pairs of simultaneous linear equations.	Analyze and solve pairs of simultaneous linear equations. a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6. c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.	***8.EE.8 Solve Pairs of Linear Equations*** <STUDENT> will analyze and solve pairs of simultaneous linear equations <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.EE.8 Point of Intersection <Student > will demonstrate that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.EE.8 Solve System of two Linear Equations <STUDENT> will solve systems of two linear equations in two variables algebraically, estimate solutions by graphing the equations, and solve simple cases by inspection <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**F**) Functions Grade 8, Standard 1	Define, evaluate, and compare functions.	Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	***8.F.1 Identify the Function as a Rule*** <STUDENT> will identify that a function is a rule or that the graph of a function is the set of ordered pairs consisting of an input and the corresponding output <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.F.1 Demonstrate Understanding of Functions <STUDENT> will demonstrate understanding that a function is a rule that assigns to each input exactly one output and that the graph of a function is a set of ordered pairs consisting of an input and corresponding output <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**F**) Functions Grade 8, Standard 2	Define, evaluate, and compare functions.	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.	***8.F.2 Compare Properties of 2 Functions*** <STUDENT> will compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, and/ or by verbal descriptions) <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**F**) Functions Grade 8, Standard 3	Define, evaluate, and compare functions.	Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function A = s2 giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.	***8.F.3 Interpret the Equation y=mx*** <STUDENT> will interpret the equation y = mx + b as defining a linear function, whose graph is a straight line <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.F.3 Give Examples of Functions that are Not Linear*** <STUDENT> will provide examples of functions that are not linear <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**F**) Functions Grade 8, Standard 4	Use functions to model relationships between quantities.	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	***8.F.4 Model a Linear Relationship*** <Student > will construct a function to model a linear relationship between two quantities <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.F.4 Determine Rate of Change*** <STUDENT> will determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.F.4 Interpret Rate of Change*** <STUDENT> will interpret the rate of change and initial value of a linear function in terms of the situation it models and its graph or a table of values <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**F**) Functions Grade 8, Standard 5	Use functions to model relationships between quantities.	Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.	***8.F.5 Describe Qualitatively Functional Relationship*** <STUDENT> will be able to describe qualitatively the functional relationship between two quantities by analyzing a graph <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.F.5 Sketch Graph Exhibiting Qualitative Features <STUDENT> will be able to sketch a graph that exhibits the qualitative features of a function that has been described verbally <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**G**) Geometry Grade 8, Standard 1	Understand congruence and similarity using physical models, transparencies, or geometry software.	Verify experimentally the properties of rotations, reflections, and translations: a. Lines are taken to lines, and line segments to line segments of the same length. b. Angles are taken to angles of the same measure. c. Parallel lines are taken to parallel lines.	***8.G.1 Lines- Properties of Rotations, Reflections and Translations*** <STUDENT> will demonstrate experimentally the properties of rotations, reflections, and translations, that lines are taken to lines, and line segments to line segments of the same length <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.G.1 Angles/Parallel Lines- Properties of Rotations, Reflections and Translations <STUDENT> will demonstrate experimentally the properties of rotations, reflections, and translations that angles are taken to angles of the same measure or translations that parallel lines are taken to parallel lines <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**G**) Geometry Grade 8, Standard 2	Understand congruence and similarity using physical models, transparencies, or geometry software.	Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.	***8.G.2 Demonstrate Understanding of Congruence*** <STUDENT> will demonstrate an understanding that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy. ***8.G.2 Describe Why 2 Figures are Congruent*** When given two congruent figures, <STUDENT> will be able to describe a sequence that exhibits the congruence between them <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**G**) Geometry Grade 8, Standard 5	Understand congruence and similarity using physical models, transparencies, or geometry software.	Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.	***8.G.5 Use Informal Arguments*** <STUDENT> will use informal arguments to establish facts about the angle sum and exterior angle of triangles, about angels created when parallel lines are cut by a transversal, or about the angle-angle criterion for similarity of triangles <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**G**) Geometry Grade 8, Standard 6	Understand and apply the Pythagorean Theorem	Explain a proof of the Pythagorean Theorem and its converse.	***8.G.6 Explain a Proof of the Pythagorean Theorem*** <STUDENT> will be able to explain orally and/or in writing a proof of the Pythagorean Theorem and its converse <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**G**) Geometry Grade 8, Standard 7	Understand and apply the Pythagorean Theorem.	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	***8.G.7 2-Dimensions -Determine Unknown Side Lengths*** <STUDENT> will use the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two dimensions <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.G.7 3-Dimensions- Determine Unknown Side Lengths <STUDENT> will use the Pythagorean Theorem to determine unknown side lengths in real-world and mathematical problems in three dimensions <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**G**) Geometry Grade 8, Standard 8	Understand and apply the Pythagorean Theorem.	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	***8.G.8 Distance Between Points in Coordinate System*** <STUDENT> will use the Pythagorean Theorem to find the distance between two points in a coordinate system <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**G**) Geometry Grade 8, Standard 9	Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	***8.G.9 Use Formulas for Volume*** <STUDENT> will use the formulas for the volumes of cones, cylinders, and spheres to solve real world and mathematical problems <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**SP**) Statistics and Probability Grade 8, Standard 1	Investigate patterns of association in bivariate data.	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	***8.SP.1 Construct and Interpret Scatter Plots*** <STUDENT> will construct and/or interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.SP.1 Describe Patterns <STUDENT> will describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**SP**) Statistics and Probability Grade 8, Standard 2	Investigate patterns of association in bivariate data.	Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.	***8.SP.2 Identify Straight Lines*** <STUDENT> will identify that straight lines are widely used to model relationships between two quantitative variables <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.SP.2 Fit a Straight Line When given scatter plots that suggest a linear association, <STUDENT> will informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(**SP**) Statistics and Probability Grade 8, Standard 3	Investigate patterns of association in bivariate data.	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.	***8.SP.3 Bivariate Measurement Data*** <STUDENT> will use the equation of a linear model to solve problems in the context of bivariate measurement data, or interpreting the slope and intercept <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.

Grade: 8			
Domain	**Cluster**	**Full Standard**	**Associated Goal Stems**
(**SP**) Statistics and Probability Grade 8, Standard 4	Investigate patterns of association in bivariate data.	Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?	***8.SP.4 Display Frequencies, Relative Frequencies*** <STUDENT> will identify that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.SP.4 Construct/Interpret Two-Way Table <STUDENT> will construct and/or interpret a two-way table summarizing data on two categorical variables collected from the same subjects <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			8.SP.4 Use Relative Frequencies <STUDENT> will use relative frequencies calculated for rows or columns to describe possible association between the two variables <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.