

Algebra I Learning Map

Prioritized Standard: MGSE9-12.A.APR.1 Add, subtract, and multiply polynomials; understand that polynomials form a system analogous to the integers in that they are closed under these operations. *Arithmetic with Polynomials and Rational Expressions - Perform arithmetic operations on polynomials*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Understand and apply polynomial operations in a geometric setting</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Add polynomials <u>Learning Target 2:</u> Subtract polynomials <u>Learning Target 3:</u> Multiply polynomials <u>Learning Target 4:</u> Understand that polynomials form a system analogous to the integers in that they are closed under these operations</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> monomial, binomial, trinomial, polynomial</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Identify like terms within a polynomial equation/expression <u>Learning Target 3:</u> Multiply monomial terms in a polynomial expression using rules of exponents</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.A.CED.2 Create linear, quadratic, and exponential equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (The phrase “in two or more variables” refers to formulas like the compound interest formula, in which $A = P(1 + r/n)^{nt}$ has multiple variables.) *Creating Equations - Create equations that describe numbers or relationships*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Relate linear and/or quadratic functions to situations involving gravity, motion, acceleration, etc <u>Learning Target 2:</u> Understand and relate the effect of changing the frequency of compounding interest (annual v semi-annual v quarterly, etc.)</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Create linear equations in two or more variables to represent relationships between quantities <u>Learning Target 2:</u> Create quadratic equations in two or more variables to represent relationships between quantities <u>Learning Target 3:</u> Create exponential equations in two or more variables to represent relationships between quantities <u>Learning Target 4:</u> Graph linear equations on coordinate axes with labels and scales <u>Learning Target 5:</u> Graph quadratic equations on coordinate axes with labels and scales <u>Learning Target 6:</u> Graph exponential equations on coordinate axes with labels and scales</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> x-intercept, y-intercept, ordered pairs, dependent variable, independent variable</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Recognize linear relationships (given a table, graph, set of ordered pairs and/or a verbal description) <u>Learning Target 3:</u> Recognize exponential relationships (given a table, graph, set of ordered pairs and/or verbal description) <u>Learning Target 4:</u> Recognize quadratic relationships (given a table, graph, set of ordered pairs and/or verbal description)</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.A.CED.4 Rearrange formulas to highlight a quantity of interest using the same reasoning as in solving equations. Examples: Rearrange Ohm's law $V = IR$ to highlight resistance R ; Rearrange area of a circle formula $A = \pi r^2$ to highlight the radius r . *Creating Equations - Create equations that describe numbers or relationships*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Solve more complex equations for a variable, i.e. $ax^2 + bx + c = 0$ for the variable x</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Rearrange formulas to highlight a quantity of interest using the same reasoning as in solving equations</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 1:</u> Solving equations using the distributive property, combining like terms, and equations with variables on both sides</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.A.REI.4 Solve quadratic equations in one variable. Reasoning with Equations and Inequalities - Solve equations and inequalities in one variable

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p>Learning Target 1: Relate or explain the context of the graph of a quadratic function in terms of projectile motion or area maximization</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p>Learning Target 1: Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions (MGSE9-12.A.REI.4.a)</p> <p>Learning Target 2: Derive the quadratic formula from $ax^2 + bx + c = 0$ (MGSE9-12.A.REI.4.a)</p> <p>Learning Target 3: Solve quadratic equations by inspection (e.g., for $x^2 = 49$) (limit to real number solutions) (MGSE9-12.A.REI.4.b)</p> <p>Learning Target 4: Solve quadratic equations by taking square roots (limit to real number solutions) (MGSE9-12.A.REI.4.b)</p> <p>Learning Target 5: Solve quadratic equations by factoring (limit to real number solutions) (MGSE9-12.A.REI.4.b)</p> <p>Learning Target 6: Solve quadratic equations by completing the square (limit to real number solutions) (MGSE9-12.A.REI.4.b)</p> <p>Learning Target 7: Solve quadratic equations by the quadratic formula (limit to real number solutions) (MGSE9-12.A.REI.4.b)</p> <p>Learning Target 8: Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, factoring, completing the square, and the quadratic formula, as appropriate to the initial form of the equation (limit to real number solutions) (MGSE9-12.A.REI.4.b)</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p>Learning Target 1: inverse operations, solutions, roots, zeros</p> <p>The student will perform basic processes:</p> <p>Learning Target 2: Identify the x-intercepts of a quadratic function given the graph</p> <p>Learning Target 3: Substituting values into an expression/equation</p> <p>Learning Target 4: Solving equations using the distributive property, combining like terms, and equations with variables on both sides</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. Reasoning with Equations and Inequalities - Solve systems of equations

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Create and solve systems of equations given a verbal description</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> intersection, eliminate (inverse), substitute, solution, infinitely many</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Solving equations using the distributive property, combining like terms, and variables on both sides</p> <p><u>Learning Target 3:</u> Estimate the x- and y-value of a coordinate on a graph</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.F.BF.1.a Write a function that describes a relationship between two quantities. Determine an explicit expression, a recursive process, or steps for calculation from a context. *Building Functions - Build a function that models a relationship between two quantities*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Create a real-world problem that utilizes a recursive process. Show your steps in solving the problem and explain the process</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Determine an explicit expression and the recursive process (steps for calculation) from context (MGSE9-12.F.BF.1.a)</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> explicit expression, recursive process</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Write a function that describes a relationship between two quantities (MGSE9-12.F.BF.1)</p> <p><u>Learning Target 3:</u> Recognize and describe functional relationships (given a table, graph, set of ordered pairs and/or verbal description)</p> <p><u>Learning Target 4:</u> Describe a general expression or process for calculation given a context</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.F.BF.3 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. *Building Functions - Build new functions from existing functions*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p>Learning Target 1: Explain how simultaneous multiple transformations impact the placement, shape and orientation of a quadratic or exponential function</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p>Learning Target 1: Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x+k)$ for specific values of k (both positive and negative)</p> <p>Learning Target 2: Find the value of k given the graphs</p> <p>Learning Target 3: Experiment with cases and illustrate an explanation of the effects on the graph using technology</p> <p>Learning Target 4: Recognize even and odd functions from their graphs</p> <p>Learning Target 5: Recognize even and odd functions from their algebraic expressions</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p>Learning Target 1: translation (horizontal and vertical shift), dilation (stretch and compress), reflection (x-axis and y-axis), even function, odd function</p> <p>The student will perform basic processes:</p> <p>Learning Target 2: Visually identify a reflection</p> <p>Learning Target 3: Visually identify a translation</p> <p>Learning Target 4: Visually identify a dilation</p> <p>Learning Target 5: Evaluate a function for a specified input using function notation</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.F.IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function. *Interpreting Functions - Interpret functions that arise in applications in terms of the context*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p>Learning Target 1: Determine how changes to a function or a quantitative relationship would affect changes to its domain</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p>Learning Target 1: Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p>Learning Target 1: discrete functions, continuous functions, domain</p> <p>The student will perform basic processes:</p> <p>Learning Target 2: Identify situation(s) when a function is discrete vs. continuous</p> <p>Learning Target 3: Determine domain restrictions (closed, positive values, integers, etc.) for given functions or situations</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.F.IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. *Interpreting Functions - Interpret functions that arise in applications in terms of the context*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Predict an average rate of change over a specific interval given a piecewise function or situation. Justify your answer</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval</p> <p><u>Learning Target 2:</u> Estimate the rate of change from a graph</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> rate of change, slope, interval</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Evaluate a function using function notation</p> <p><u>Learning Target 3:</u> Estimate the x- and y-value of a coordinate</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.F.IF.7 Graph functions expressed algebraically and show key features of the graph both by hand and by using technology. *Interpreting Functions - Analyze functions using different representations*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Relate or explain the context if a graph in terms of projectile motion</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Graph linear functions and show intercepts, maxima, and minima (as determined by the function or by context) (MGSE9-12.F.IF.7.a) <u>Learning Target 2:</u> Graph quadratic functions and show intercepts, maxima, and minima (as determined by the function or by context) (MGSE9-12.F.IF.7.a) <u>Learning Target 3:</u> Graph exponential functions, showing intercepts and end behavior (MGSE9-12.F.IF.7.e)</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> axis of symmetry, vertex, minimum, maximum, roots, intercepts, end behavior</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Using tables, graphs, and verbal descriptions, interpret the key characteristics of a function which models the relationship between two quantities (MGSE9-12.F.IF.4) <u>Learning Target 3:</u> Sketch a graph showing key features including intercepts; interval whether the function is increasing, decreasing, positive, or negative; relative maximums, minimums; symmetries; end behavior (MGSE9-12.F.IF.4)</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. *Interpreting Functions - Analyze functions using different representations*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Rewrite quadratic expressions to represent contextual applications using factored form</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. For example, compare and contrast quadratic functions in standard, vertex, and intercept forms (MGSE9-12.F.IF.8.a)</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> greatest common factor (GCF), vertex form, standard form, intercept form (factored form)</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Use the structure of an expression to rewrite it in different equivalent forms (MGSE9-12.A.SSE.2)</p> <p><u>Learning Target 3:</u> Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression (MGSE9-12.A.SSE.3)</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.N.RN.2 Rewrite expressions involving radicals *The Real Number System - Extend the properties of exponents to rational exponents.*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Rationalize the denominator of a radical expression using conjugates <u>Learning Target 2:</u> Rewrite expressions involving radicals where the index is greater than 2</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Rewrite expressions involving radicals (i.e., simplify and/or use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots)</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> radical, radicand, perfect square, rational, irrational, index</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Understand that like square roots are analogous to like terms in polynomial expressions <u>Learning Target 3:</u> Identify the largest perfect square factor (if any) of the given radicand</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.S.ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). *Interpreting Categorical and Quantitative Data - Summarize, represent, and interpret data on a single count or measurement variable*

	Proficiency Scale
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Make inferences about a population based on a random sample from that population</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers)</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> outlier, skew left, skew right, variability, measure of central tendency, spread</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Represent data with plots on the real number line (dot plots, histograms, and box plots) (MGSE9-12S.ID.1)</p> <p><u>Learning Target 3:</u> Use statistics appropriate to the shape of the data distribution to compare center (median, mean) of two or more different data sets (MGSE9-12S.ID.2)</p> <p><u>Learning Target 4:</u> Use statistics appropriate to the shape of the data distribution to compare spread (interquartile range, mean absolute deviation) of two or more different data sets (MGSE9-12S.ID.2)</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Algebra I Learning Map

Prioritized Standard: MGSE9-12.S.ID.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data. *Interpreting Categorical and Quantitative Data - Interpret linear models*

Proficiency Scale	
4.0	<p>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:</p> <p><u>Learning Target 1:</u> Explain the dangers of extrapolation <u>Learning Target 2:</u> Calculate and interpret the residuals to assess if a linear model is appropriate</p>
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	<p>The student will</p> <p><u>Learning Target 1:</u> Interpret the slope (rate of change) of a linear model in the context of the data <u>Learning Target 2:</u> Interpret the intercept (constant term) of a linear model in the context of the data</p> <p>The student exhibits no major errors or omissions.</p>
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	<p>There are no major errors or omissions regarding the simpler details and processes.</p> <p>The student will recognize or recall specific vocabulary:</p> <p><u>Learning Target 1:</u> slope, rate of change, scatterplot, y-intercept</p> <p>The student will perform basic processes:</p> <p><u>Learning Target 2:</u> Represent data on two quantitative variables on the scatterplot, and describe how the variables are related (MGSE9-12.S.ID.6) <u>Learning Target 3:</u> Decide which type of function (linear, quadratic or exponential) is most appropriate by observing graphed data, charted data, or by analysis of context to generate a viable (rough) function of best fit. Use this function to solve problems in context (MGSE9-12.S.ID.6.a) <u>Learning Target 4:</u> Using given or collected bivariate data, fit a linear function for a scatterplot that suggests a linear association (MGSE9-12.SID.6.c)</p> <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success