Moscow School District #281
Mastery Learning Map

General Applied Math	
1. Competency Statements for **Operations and Algebraic Thinking** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to represent and solve problems involving addition, subtraction, multiplication and division.***
	1. I can add and subtract whole numbers. 2. I can multiply whole numbers. 3. I can divide whole numbers, including a remainder if the solution is not another whole number.
National Standards	1.OA, 2.OA, 3.OA

General Applied Math

2. Competency Statements for **Numbers and Operations** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to develop understanding of fractions as numbers, build fractions from unit fractions by applying previous knowledge of operations on whole numbers and use equivalent fractions to add and subtract.***
	1. I can understand the size of a fraction compared to a whole. 2. I can compare different fractions and order them according to their size. 3. I can add and subtract fractions with a common denominator. 4. I can change fractions to have a common denominator. 5. I can identify and place fractions on a number line. 6. I can multiply fractions.
National Standards	3.NF, 4.NF, 5.NF

General Applied Math	
3. Competency Statements for **Geometry**	***Students will be able to reason with shapes and their attributes.***
"Learning Targets" *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can partition rectangular shapes into equal sized pieces and indicate what fraction each piece represents. 2. I can partition rectangular shapes into equal sized pieces and indicate what fraction each piece represents. 3. I can see the area of partitioned rectangles as a form of multiplication using the rows and columns. 4. I can determine the area of a rectangle or irregular rectangular shape. 5. I can determine the perimeter of a rectangle or irregular, rectangular shape.
National Standards	1.G, 2.G, 3.G

Moscow School District #281
Mastery Learning Map

Pre-Algebra	
1. Competency Statements for **Number and Number Systems** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will expand their understanding of number systems, thinking flexibly and attending to precision and reasonableness, when solving problem.***
	1. I can work with radicals and integer exponents. 2. I understand the connections between proportional relationships, lines and linear equations. 3. I can analyze and solve a linear equation and pairs of simultaneous linear equations.
National Standards	8.NS.1, 8.NS.2, 8.EE.1, 8.EE.2, 8.EE.3, 8.EE.4, 8.EE.5, 8.EE.6, 8.EE.7, 8.EE.7a, 8.EE.7b, 8.EE.8, 8.EE.8a, 8.EE.8b, 8.EE.8c

Pre-Algebra	
2. Competency Statements for **Geometry**	***Students will solve problems involving spatial reasoning using properties of 2- and 3-dimensional figures to analyze, represent, and model geometric relationships.***
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I can apply the Pythagorean Theorem to solve problems.
National Standards	8.G.1, 8.G.1a, 8.G.1b, 8.G.1c, 8.G.2, 8.G.3, 8.G.4, 8.G.5, 8.G.6, 8.G.7, 8.G.8, 8.G.9

Pre-Algebra	
3. Competency Statements for **Functions**	***Interpret, analyze, and use functions when applied in a variety of contexts, including real world phenomena.***
"Learning Targets" *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can define, evaluate and compare functions.
National Standards	8.F.1, 8.F.2, 8.F.3, 8.F.4, 8.F.5

Pre-Algebra

	Students will apply statistical methods and reasoning to summarize, represent, analyze, and interpret patterns of data.
4. Competency Statements for **Data Analysis, Probability, and Statistics** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can interpret patterns of association in bivariate data.
National Standards	8.SP.1 8.SP.2 8.SP.3 8.SP.4

Moscow School District #281
Mastery Learning Map

Algebra I	
1. Competency Statements for **Real Number System** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to work with exponents that are both rational and irrational.***
	1. I can extend the properties of exponents to rational exponents 2. I can use properties of rational and irrational numbers.
National Standards	N-RN.1, N-RN.2, N-RN.3

Algebra I	
2. Competency Statements for **Quantities**	***Students will be able to correctly apply units in problem solving.***
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I can reason quantitatively and use units to solve problems.
National Standards	N-Q.1, N-Q.2, N-Q.3

Algebra I

3. Competency Statements for **Seeing Structure in Expressions** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to understand, evaluate and rewrite expressions to solve problems.***
	1. I can interpret the structure of expressions. 2. I can write expressions in equivalent forms to solve problems.
National Standards	A-SSE.1, A-SSE.2, A-SSE.3

Algebra I
4. Competency Statements for **Arithmetic with Polynomials and Rational Expressions** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will focus on polynomial expressions that simplify to forms that are linear or quadratic in a positive integer power of x.*** 1. I can perform arithmetic operations on polynomials.
National Standards	A-APR.1

Algebra I	
5. Competency Statements for **Creating Equations**	***Students will be able to write equations to represent situations, graphs or tables.***
"Learning Targets" *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can create equations that describe numbers or relationships. 2. I can rearrange a formula to highlight a quantity of interest.
National Standards	A-CED.1, A-CED.2, A-CED.3, A-CED.4

Algebra I

6. Competency Statements for **Reasoning with Equations and Inequalities** ***"Learning Targets"*** *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to solve and graph both single equations/inequalities and systems of equations/inequalities.***
	1. I can understand solving equations as a process of reasoning and explain the reasoning. 2. I can solve equations and inequalities in one variable. 3. I can solve systems of equations. 4. I can represent/solve equations and inequalities graphically.
National Standards	A-REI.1, A-REI.3, A-REI.4, A-REI.5, A-REI.6, A-REI.7, A-REI.10, A-REI.11, A-REI.12

Algebra I
7. Competency Statements for **Interpreting Functions** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to understand and manipulate functions using correct notation.***
	1. I can understand the concept of a function. 2. I can use function notation. 3. I can interpret functions that arise in applications in terms of the context 4. I can analyze functions using different representations.
National Standards	F-IF.1, F-IF.2, F-IF.3, F-IF.4, F-IF.5, F-IF.6, F-IF.7, F-IF.8, F-IF.9

Algebra I
8. Competency Statements for **Building Functions**	***Students will be able to create and manipulate functions.***
"Learning Targets" *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can build a function that models a relationship between two quantities. 2. I can build new functions from existing functions.
National Standards	F-BF.1, F-BF.2, F-BF.3, F-BF.4

Algebra I	
9. Competency Statements for **Linear and Exponential Models** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to model situations with linear and exponential equations and solve problems in a real world context.***
	1. I can construct and compare linear and exponential models. 2. I can solve problems and interpret expressions for functions in terms of the situation they model.
National Standards	F-LE.1, F-LE.2, F-LE.3, F-LE.5

Algebra I	
10. Competency Statements for **Interpreting Categorical and Quantitative Data** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will use regression techniques to describe, approximately, linear relationships between quantities. They use graphical representations and knowledge of the context to make judgements about the appropriateness of linear models.***
	1. I can summarize, represent, and interpret data on a single count or measurement variable. 2. I can summarize, represent, and interpret data on two categorical and quantitative variables. 3. I can interpret linear models.
National Standards	S-ID.1, S-ID.2, S-ID.3, S-ID.5, S-ID.6, S-ID.7, S-ID.8, S-ID.9

Moscow School District #281
Mastery Learning Map

Geometry	
1. Competency Statements for **Congruence G-CO** ***"Learning Targets"*** *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will understand congruence through transformations and rigid motions and use their knowledge to prove geometric theorems and make geometric constructions.***
	1. I can experiment with transformations in the plane. 2. I can understand congruence in terms of rigid motions. 3. I can prove geometric theorems. 4. I can make geometric constructions.
National Standards	G-CO.1 - G-CO.13

Geometry	
2. Competency Statements for **Similarity, Right Triangles and Trigonometry G-SRT**	*Students will understand similarity, right triangles and trigonometry and use their knowledge to prove geometric theorems and solve geometric problems.*
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I can understand similarity in terms of similarity transformations. 2. I can prove theorems involving similarity. 3. I can define trigonometric ratios and solve problems involving right triangles. 4. I can apply trigonometry to general triangles.
National Standards	G-SRT.1 - G-SRT. 11

Geometry

3. Competency Statements for **Circles G-C**	***Students will be able to utilize theorems about circles to solve problems about arc lengths and sector areas of circles.***
"Learning Targets" *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can understand and apply theorems about circles. 2. I can find arc lengths and areas of sectors of circles. 3. I can identify and use tangents and secants of circles.
National Standards	G-C.1 - G.C.5

Mastery Learning Map

Geometry	
4. Competency Statements for **Expressing Geometric Properties with Equations G-GPE** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to use coordinate geometry to prove geometric theorems and properties algebraically.***
	1. I can use there coordinate plane to prove geometric properties of shapes.
National Standards	G-GPE.1 - G-GPE.2 G-GPE. 4 - G.GPE.7

Geometry		
5. Competency Statements for **Geometric Measurement and Dimension G-GMD**	*Students will be able to use area and volume formulas to solve two and three dimensional problems.*	
	1. I can prove volume formulas and use them to solve problems. 2. I can visualize relationships between two-dimensional and three-dimensional objects.	
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.		
National Standards	G-GMD.1, G-GMD.2, G-GMD.4	

Geometry	
6. Competency Statements for **Modeling with Geometry G-MG** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will understand and be able to apply geometric concepts in modeling situations.***
	1. I can apply geometric concepts in modeling situations.
National Standards	G-MG.1 - G-MG.3

Geometry	
7. Competency Statements for **Conditional Probability and the Rules of Probability S-CP** *"Learning Targets"* *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to apply probability rules to interpret data.***
	1. I can understand independence and conditional probability and use them to interpret data.
National Standards	S-CP.1 - S-CP.9

Geometry	
8. Competency Statements for **Using Probability to Make Decisions S-MD**	***Students will be able to apply probability rules to make decisions.***
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I can use probability to evaluate outcomes of decisions.
National Standards	S-MD.6 -S-MD.7

Moscow School District #281
Mastery Learning Map

Algebra II	
1. Competency Statements for **Number and Quantity** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	*1. The Real Number System and The Complex Number System: Use and extend properties of complex number systems.* *2. Quantities: Reason and model quantitatively, when analyzing, representing, and solving problems.* *3. Vector and Matrix Quantities: Analyze and represent vector and matrix quantities in solving problems.*
	1. I can perform arithmetic operations with complex numbers. 2. I can use complex numbers in polynomial identities and equations.
National Standards	N-CN.1 N-CN.2 N-CN.7 N-CN.8 N-CN.9

Algebra II	
2. Competency Statements for **Algebra** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***4. Seeing Structures in Expressions: Analyze and use structure in expressions to solve problems.*** ***5. Arithmetic with Polynomials and Rational Expressions & Use polynomial identities to solve problems: Solve problems when applying concepts of polynomials and concepts of rational numbers.*** ***6. Creating Equations: Create and use algebraic models to connect mathematical concepts and properties when solving real-world problems.*** ***7. Reasoning with Equations and Inequalities: Explain and justify reasoning when solving equations, inequa___***
	1. I can interpret the structure of expressions. 2. I can write expressions in equivalent forms to solve problems 3. I can perform arithmetic operations on polynomials 4. I understand the relationship between zeros and factors of polynomials 5. I can use polynomial identities to solve problems 6. I can rewrite rational expressions 7. I can create equations that describe numbers or relationships 8. I understand solving equations as a process of reasoning and explain the reasoning 9. I can represent and solve equations and inequalities graphically
National Standards	A-SSE.1 A-SSE.1a A-SSE.1b A-SSE.2 A-SSE.4 A-APR.1 A-APR.2 A-APR.3 A-APR.4 A-APR.5 A-APR.6 A-APR.7 A-CED.1 A-CED.2 A-CED.3 A-CED.4 A.REI.2 A.REI.11

Algebra II	
3. Competency Statements for **Functions** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	*8. Interpreting Functions and Trigonometric Functions: Interpret, analyze, and use functions when applied in a variety of contexts, including real world phenomena.* *9. Building Functions and Trigonometric Functions: Build functions that model relationships between two quantities.* *10. Linear, Quadratic and Exponential Models: Distinguish among situations that can be represented with linear, quadratic and exponential models and provide evidence to support reasoning.*
	1. I can interpret functions that arise in applications in terms of the context 2. I can analyze functions using different representations 3. I can build a function that models a relationship between two quantities 4. I can build new functions from existing functions 5. I can construct and compare linear and exponential models and solve problems 6. I can interpret expressions for functions in terms of the situation they model 7. I can extend the domain of trigonometric functions using the unit circle 8. I can model periodic phenomena with trigonometric functions 9. I can prove and apply trigonometric identities
National Standards	F-IF.4 F-IF.5 F-IF.6 F-IF.7 F-IF.7b F-IF.7c F-IF.7e F-IF.8 F-IF.8a F-IF.8b F-IF.9 F-BF.1 F-BF.1b F-BF.3 F-BF.4 F-BF.4a F-LE.4 F-LE.4.1 F-LE.4.2 F-LE.4.3 F-LE.5 F-TF.1 F-TF.2 F-TF.2.1 F-TF.5 F-TF.8

Algebra II	
4. Competency Statements for **Geometry** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***11. Congruence: Use reasoning to construct and apply viable arguments about congruence. Similarity, Right Triangles, and*** ***12. Trigonometry: Use reasoning to construct and apply viable arguments about similarity.*** ***13. Circles: Reason and apply theorems about circles.*** ***14. Expressing Geometric Properties with Equations: Apply algebraic models to express geometric relationships.*** ***15. Geometric Measurement and Dimension: Explain, apply, and model geometric measurement formulas.***
	1. I can translate between the geometric description and the equation for a conic sectio
National Standards	G-GPE.3.1

Algebra II	
5. Competency Statements for **Statistics and Probability**	***16. Statistics and Probability: Apply statistical methods or reasoning to summarize, represent, and interpret categorical and quantitative data.*** ***17. Making Inferences and Justifying Conclusions: Make inferences and justify or critique conclusions.*** ***18. Conditional Probability and Rules of Probability: Apply the rules of probability including conditional probability to determine the likelihood of a given outcome.*** ***19: Using Probability to Make Decisions: Apply probability concepts to analyze and evaluate potential decisions and strategies.***
***"Learning Targets"** are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can summarize, represent, and interpret data on a single count or measurement variable 2. I can understand and evaluate random processes underlying statistical experiments 3. I can make inferences and justify conclusions from sample surveys, experiments, and observational studies 4. I can calculate expected values and use them to solve problems
National Standards	S-ID.4 S-IC.1 S-IC.2 S-IC.3 S-IC.4 S-IC.5 S-IC.6 S-MD.6 S-MD.7

Pre-Calculus	
1. Competency Statements for **Area Under the Curve** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Learn how functions can be constructed using more than one equation; find sums of sequences; find area under a curve using rectangles and trapezoids; understand what area under a curve represents in real world applications.***
	1. I can graph and use piecewise defined functions. 2. I can use Sigma Notation for finding sums. 3. I can find the area under a curve using rectangles and trapezoids.
National Standards	

Pre-Calculus	
2. Competency Statements for **Exponentials and Logarithms** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	*Students will learn: how f(kx) transforms the graph of f(x) and see a few examples of equivalent transformations. You will apply what you know about exponential functions to real-world situations; present an algebraic method for finding an inverse function; introduce log as the inverse exponential function and explore its graph; review the log laws and develop more skills using the log laws to solve equations and simplify expressions*
	1. I can shift and stretch graphs both vertically and horizontally. 2. I can determine equivalent transformations. 3. I can apply exponential functions to real world problems. 4. I can define a log function. 5. I can graph a log function and locate all the special properties of the graph.
National Standards	

Pre-Calculus	
3. Competency Statements for **Circular Functions**	***Students will use the unit circle to generate the graphs of sine and cosine; explore other trigonometric functions and use trigonometric identities to simplify expressions; apply the ideas of periodic functions to application problems and investigate the combination of two periodic functions.***
"Learning Targets" *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	1. I can use the unit circle to find exact values of trigonometric functions. 2. I can graph various sinusoidal functions. 3. I can define all the reciprocal trigonometric functions. 4. I can use trigonometric identities to simplify trigonometric expressions.
National Standards	

Pre-Calculus	
4. Competency Statements for **Introduction to Limits** *"Learning Targets"* *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	*Students will investigate rational functions and learn how to rewrite such functions in more useful forms; solve problems involving direct and inverse variation; explore how functions behave as x approaches a particular value or goes to infinity; learn about one-sided limits and limits of piecewise functions; define continuity.*
	1. I can sketch and simplify rational functions. 2. I can solve direct and indirect variation type problems. 3. I can graph the reciprocal functions secant and cosecant. 4. I can find the limit at a point and at infinity. 5. I can define continuity. 6. I can find limits using algebra techniques.
National Standards	

Pre-Calculus	
5. Competency Statements for **More on Periodic Functions** *"Learning Targets"* are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	***Students will solve trigonometric equations; solve the SSA case of a triangle; model and solve more complex periodic applications; simplify expressions involving more than one angle.***
	1. I can solve trigonometric equations. 2. I can use the Law of Sines to solve triangles. 3. I can model periodic function with any period shift. 4. I can use complex trigonometric identities to simplify trigonometric expressions.
National Standards	

Pre-Calculus	
6. Competency Statements for **College Mathematics** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will describe functions; set up, simplify, and solve complex problems; expand binomials with Pascal's Triangle; sum finite arithmetic and geometric series.***
	1. I can describe a function using the proper terminology. 2. I can set up and solve complex problems. 3. I can simplify expressions with a variety of algebraic techniques. 4. I can expand a binomial with powers greater than 2 using Pascal's Triangle. 5. I can find the finite and infinite sum of a geometric series.
National Standards	

Pre-Calculus	
7. Competency Statements for **Rate of Change**	*Students will find average rates of change for many different types of functions; look at average rates of change, then take limits of these average rates of change to find instantaneous rates of change; find ways of relating distance and velocity graphs and distance and velocity functions; define the derivative and apply the definition to find the instantaneous rate of change of a function.*
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I can calculate the rate of change for a variety of situations. 2. I can estimate the instantaneous rates of change. 3. I can use limits to find the instantaneous rate of change. 4. I can determine the difference between velocity and displacement of a particle.
National Standards	

Pre-Calculus	
8. Competency Statements for **Conic Sections** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will define and investigate properties of conic sections; solve problems involving conic sections; define and use eccentricity.***
	1. I can find the equation of a conic using its formal definition. 2. I can graph conics. 3. I can find the eccentricity of a conic.
National Standards	

Moscow School District #281
Mastery Learning Map

Calculus	
1. Competency Statements for **Limits** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will develop and be able to use: the concept of a limit: the concept of continuity; and define a derivative.***
	1. I can calculate limits using "Limit Laws." 2. I can define continuity. 3. I can determine if a function is continuous. 4. I can use limits to determine horizontal asymptotes. 5. I can use limits to define the derivative
National Standards	

Calculus

2. Competency Statements for **Derivatives** *"Learning Targets"* *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will use the definition of derivative to define a new function known as the derivative , and will be able to use the derivative to solve a variety of real world problems***
	1. I can define and use all the derivative laws. 2. I can use the derivative to find the rate of change. 3. I can use the derivative to determine the related rate. 4. I can use the derivative to find the maximum and minimum of functions. 5. I can use the limit and the derivative to define the Mean Value Theorem. 6. I can use solve real world optimization problems
National Standards	

Calculus	
3. Competency Statements for **Integrals**	***Students will be able to use the limit to define an integral, Students will be able to apply the Fundamental Theorem of Calculus" and students will be able use the integral to: find the area bound by two curves; solve a variety of real world problems***
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I know the Fundamental Theorem of Calculus. 2. I can find the area under a curve. 3. I can find the area between two functions. 4. I can find the volume of a solid rotated about an axis. 5. I can find the volume of a solid using the "Washer Method." 6. I can find the volume of a solid using the "Cylindrical Shell Method." 7. I can apply "Work" to an integral. 8. I can integrate by parts. 9. I can evaluate trigonometric integrals. 10. I can use substitution to evaluate integrals. 11. I can use partial fraction decomposition to evaluate integrals. 12. I can use direction fields and Euler'd Method to determine evaluate differential equations
National Standards	

Moscow School District #281
Mastery Learning Map

Statistics	
1. Competency Statements for **Exploring and Understanding Data** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to understand and interpret data using both tables and graphs.***
	1. I will be able to identify the who, what, when, where, why and how of data collection. 2. I can classify variables. 3. I can display categorical data with graphs. 4. I can display categorical data in tables. 5. I can display quantitative data with graphs. 6. I can recognize and work with the statistics of distributions. 7. I can understand and compare distributions. 8. I can understand and calculate z-scores. 9. I can understand and use the Normal Model. 10. I can convert between amounts and probability.
National Standards	S-ID.1-S-ID.6

Statistics	
2. Competency Statements for **Exploring Relationships Between Variables** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will be able to understand and use relationships between variables when displayed in scatterplots.***
	1. I can understand and use scatterplots and correlation. 2. I understand linear regression. 3. I understand and can determine R^2
National Standards	S-ID.6-S-ID.9

Statistics	
3. Competency Statements for **Gathering Data**	***Students will be able to design, perform and analyze simulations, surveys, observational studies and experiments.***
"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.	1. I can create and interpret simulations. 2. I know and can use sampling strategies. 3. I can understand and recognize biases. 4. I can design, conduct and analyze observational studies. 5. I can design, conduct and analyze experiments.
National Standards	S-IC.3

Statistics

4. Competency Statements for **Randomness and Probability** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will know formal and conditional probability.*** 1. I understand and can calculate formal probability. 2. I understand and can calculate conditional probability. 3. I know the difference between independence and being disjointed. 4. I understand and can calculate expected value of random variables. 5. I understand and can calculate variance of random variables. 6. I understand and can use geometric probability models. 7. I understand and can use binomial probability models.
National Standards	S-CP.1 - S-CP.9 S-MD.1 - S-MD.7

Statistics

5. Competency Statements for **Confidence Intervals and Hypothesis Testing of Proportions** *"Learning Targets"* *are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will determine confidence intervals and perform hypothesis tests on proportional data.***
	1. I understand sampling variability. 2. I understand the sampling distribution model for a proportion. 3. I understand and can use confidence Intervals for proportions (1Prop. Z-Int.) 4. I can perform a one-proportion z-test 5. I understand and can calculate and evaluate p-values. 6. I understand significance levels. 7. I can use confidence intervals as hypothesis tests. 8. I understand Type I and Type II Errors and Power. 9. I can perform a Two-Proportion z-Interval. 10. I can perform a Two-Proportion z-Test.
National Standards	S-IC.1, S-IS.2

Statistics

6. Competency Statements for **Confidence Intervals and Hypothesis Testing of Means** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	*Students will determine confidence intervals and perform hypothesis tests on means data.*
	1. I can perform a One-Sample t-Interval. 2. I can perform a One-Sample t-Test. 3. I can calculate minimum sample size. 4. I can perform a Two-Sample t-Interval. 5. I can perform a Two-Sample t-Test. 6. I can perform a Paired t-Test. 7. I can perform a Paired t-Interval.
National Standards	S-IC.1, S-IS.2

Statistics	
7. Competency Statements for **Inference When Variables Are Related** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Students will compare and analyze data sets using analysis of variance and multiple regression tests.***
	1. I can understand, perform and interpret an ANOVA test. 2. I can understand, perform and interpret a Multiple Regression test.
National Standards	

Moscow School District #281
Mastery Learning Map

Business Math	
1. Competency Statements for **Business Math** *"Learning Targets" are models of what educators may see in performance tasks when students demonstrate their increasing understanding and use of the competencies.*	***Business Math reinforces general math topics such as arithmetic using rational numbers, measurement, percent and basic statistics.***
	1. I can compute federal income taxes using a tax table and tax schedules. 2. I can compute the operations needed to fill out W-4, W-2 and tax forms. 3. I can compute financial responsibility of business ownership. 4. I can use stock data to interpret and follow progress of a corporate stock. 5. I can use multiple pieces of information, equations and methodologies to model a business. 6. I can keep track of checking, savings and credit account balances. 7. I can calculate compound interest on an account. 8. I can find present value and future value on investments. 9. I can calculate finance charges on different types of credit and loans. 10. I can calculate coverage and value of different types of insurance.
National Standards	