Georgia's K-12 Mathematics Standards Curriculum Map

Implementation beginning Fall 2023

ALGEBRA: CONCEPTS & CONNECTIONS

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Georgia's K-12 Mathematics Standards
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Semester 1				Semester 2				
Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**	**Unit 7**	**Unit 8**	**Unit 9**
Modeling Linear Functions Interdisciplinary Connection	Analyzing Linear Inequalities Interdisciplinary Connection	Investigating Rational and Irrational Numbers Interdisciplinary Connection	Modeling and Analyzing Quadratic Functions Interdisciplinary Connection	Modeling and Analyzing Exponential Expressions & Equations Interdisciplinary Connection	Analyzing Exponential Functions Interdisciplinary Connection	Investigating Data Interdisciplinary Connection	Algebraic Connections to Geometric Concepts Interdisciplinary Connection	Culminating Capstone Unit
Traditional Schedule								
3 – 4 weeks	**1 – 2 weeks**	**1 – 2 weeks**	**6 – 7 weeks**	**2 – 3 weeks**	**4 – 5 weeks**	**3 – 4 weeks**	**2 – 3 weeks**	**1 – 2 weeks**
Block Schedule								
9 – 12 days	**3 – 6 days**	**3 – 6 days**	**18 – 21 days**	**6 – 9 days**	**12 – 15 days**	**9 – 12 days**	**6 – 9 days**	**2 – 4 days**
A.FGR.2 A.MM.1 A.MP.1-8	A.PAR.4 A.MM.1 A.MP.1-8	A.NR.5 A.MM.1 A.MP.1-8	A.PAR.6 A.FGR.7 A.MM.1 A.MP.1-8	A.PAR.8 A.MM.1 A.MP.1-8	A.FGR.9 A.MM.1 A.MP.1-8	A.DSR.10 A.MM.1 A.MP.1-8	A.GSR.3 A.MM.1 A.MP.1-8	All standards A.MM.1 A.MP.1-8

Ongoing interdisciplinary learning to impact the community and to explain real-life phenomena.

The concepts presented in each unit are presented based on a logical, mathematical progression. Each unique unit in sequence builds upon the previous unit.

The Framework for Statistical Reasoning, Mathematical Modeling Framework, and the K-12 Mathematical Practices should be taught throughout the units.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

Key for Course Standards: MP: Mathematical Practices, MM: Mathematical Modeling**, NR:** Numerical Reasoning**, FGR:** Functional & Graphical Reasoning**, GSR:** Geometric & Spatial Reasoning**, PAR:** Patterning & Algebraic Reasoning**, DSR:** Data & Statistical Reasoning

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Year-At-A-Glance

Semester 1

Pacing Suggestion	Unit	Content Standards	Learning Objectives	
Ongoing Embedded Throughout All Units	**Mathematical Modeling** *When students model with mathematics, they develop a more engaging and deeper understanding of the world around them. Students who engage in mathematical modeling will not only be prepared for their chosen career but will also learn to make informed life decisions based on data and the models they create. For this reason, the modeling unit will be embedded throughout the course. See Mathematical Modeling Framework as an Instructional Support.*	A.MM.1 A.MP.1-8	A.MM.1.1 A.MM.1.2 A.MM.1.3 A.MM.1.4 A.MM.1.5	
Traditional **3 – 4 weeks** **Block** **9 – 12 days**	**Unit 1: Modeling Linear Functions** *Students will construct and interpret arithmetic sequences as functions, algebraically and graphically, to model and explain real-life phenomena. They will use formal notation to represent linear functions and the key characteristics of graphs of linear functions, and informally compare linear and non-linear functions using parent graphs.*	A.FGR.2 A.MM.1 A.MP.1-8	A.FGR.2.1 A.FGR.2.2 A.FGR.2.3 A.FGR.2.4 A.FGR.2.5	A.MM.1.1 A.MM.1.2 A.MM.1.4 A.MM.1.5
Traditional **1 – 2 weeks** **Block** **3 – 6 days**	**Unit 2: Analyzing Linear Inequalities** *Students will create, analyze, and solve linear inequalities in two variables and systems of linear inequalities to model real-life phenomena.*	A.PAR.4 A.MM.1 A.MP.1-8	A.PAR.4.1 A.PAR.4.2 A.PAR.4.3	A.MM.1.1 A.MM.1.4
Traditional **1 – 2 weeks** **Block** **3 – 6 days**	**Unit 3: Investigating Rational and Irrational Numbers** *Students will investigate rational and irrational numbers and rewrite expressions involving square roots and cube roots. They should be able to use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots and cube roots.*	A.NR.5 A.MM.1 A.MP.1-8	A.NR.5.1 A.NR.5.2 A.MM.1.1 A.MM.1.2	A.MM.1.3 A.MM.1.4 A.MM.1.5
Traditional **6 – 7 weeks** **Block** **18 – 21 days**	**Unit 4: Modeling and Analyzing Quadratic Functions** *Students will analyze quadratic functions. Students will (1) investigate key features of graphs; (2) solve quadratic equations by taking square roots, factoring ($x^2 + bx + c$ AND $ax^2 + bx + c$), completing the square, and using the quadratic formula; (3) compare and contrast graphs in standard, vertex, and intercept forms. Students will only work with real number solutions.*	A.PAR.6 A.FGR.7 A.MM.1 A.MP.1-8	A.PAR.6.1 A.PAR.6.2 A.PAR.6.3 A.PAR.6.4 A.FGR.7.1 A.FGR.7.2 A.FGR.7.3 A.FGR.7.4 A.FGR.7.5	A.FGR.7.6 A.FGR.7.7 A.FGR.7.8 A.FGR.7.9 A.MM.1.1 A.MM.1.2 A.MM.1.4 A.MM.1.5

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Year-At-A-Glance

Semester 2

Pacing Suggestion	Unit	Content Standards	Learning Objectives	
Traditional **2 – 3 weeks** **Block** **6 – 9 days**	**Unit 5: Modeling and Analyzing Exponential Expressions and Equations** *Students will interpret exponential expressions, one variable exponential equations in context, and understand parameters of two variable exponential equations.*	A.PAR.8 A.MM.1 A.MP.1-8	A.PAR.8.1 A.PAR.8.2 A.PAR.8.3 A.PAR.8.4	A.MM.1.1 A.MM.1.2 A.MM.1.4 A.MM.1.5
4 - 5 weeks	**Unit 6: Analyzing Exponential Functions** *Students will construct and analyze the graph of an exponential function to explain a contextual situation for which the graph serves as a model; compare exponential with linear and quadratic functions.*	A.FGR.9 A.MM.1 A.MP.1-8	A.FGR.9.1 A.FGR.9.2 A.FGR.9.3 A.FGR.9.4	A.FGR.9.5 A.MM.1.1 A.MM.1.4
Traditional **3 – 4 weeks** **Block** **9 – 12 days**	**Unit 7: Investigating Data** *Students will collect, analyze, and interpret univariate quantitative data to answer statistical investigative questions that compare groups to solve real-life problems. Students will represent bivariate data on a scatter plot and fit a function to the data to answer statistical questions and solve real-life problems.*	A.DSR.10 A.MM.1 A.MP.1-8	A.DSR.10.1 A.DSR.10.2 A.DSR.10.3 A.DSR.10.4 A.DSR.10.5 A.DSR.10.6 A.DSR.10.7	A.MM.1.1 A.MM.1.2 A.MM.1.3 A.MM.1.4 A.MM.1.5
Traditional **2 – 3 weeks** **Block** **6 – 9 days**	**Unit 8: Algebraic Connections to Geometric Concepts** *Students will solve problems involving distance, midpoint, slope, area, and perimeter to model and explain real-life phenomena.*	A.GSR.3 A.MM.1 A.MP.1-8	A.GSR.3.1 A.GSR.3.2 A.MM.1.1 A.MM.1.3 A.MM.1.4 A.MM.1.5	
Traditional **1 – 2 weeks** **Block** **2 – 4 days**	**Unit 9: Culminating Capstone Unit** ***(applying concepts in real-life contexts in a culminating interdisciplinary unit)*** *The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)*	All standards A.MM.1 A.MP.1-8	All Associated Learning Objectives	

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Semester 1

Unit 1: Modeling Linear Functions

Traditional (3 – 4 weeks)	Block (9 – 12 days)

Big Ideas: Functional & Graphical Reasoning and Mathematical Modeling

Standards Addressed in this Unit:

A.FGR.2: Construct and interpret arithmetic sequences as functions, algebraically and graphically, to model and explain real-life phenomena. Use formal notation to represent linear functions and the key characteristics of graphs of linear functions, and informally compare linear and non-linear functions using parent graphs.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.

Suggested Clusters of Concepts (Learning Objectives)

A.FGR.2.1 - Use mathematically applicable situations algebraically and graphically to build and interpret arithmetic sequences as functions whose domain is a subset of the integers.
A.FGR.2.2 - Construct and interpret the graph of a linear function that models real-life phenomena and represent key characteristics of the graph using formal notation.

A.FGR.2.3 - Relate the domain and range of a linear function to its graph and, where applicable, to the quantitative relationship it describes. Use formal interval and set notation to describe the domain and range of linear functions.
A.FGR.2.4 - Use function notation to build and evaluate linear functions for inputs in their domains and interpret statements that use function notation in terms of a mathematical framework. *(See the Mathematical Modeling Framework and Statistical Reasoning Framework for contextual connections.)*

A.FGR.2.5 - Analyze the difference between linear functions and nonlinear functions by informally analyzing the graphs of various parent functions (linear, quadratic, exponential, absolute value, square root, and cube root parent curves).

A.MM.1.1 - Explain applicable, mathematical problems using a mathematical model.
A.MM.1.2 - Create mathematical models to explain phenomena that exist in the natural sciences, social sciences, liberal arts, fine and performing arts, and/or humanities domains.
A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.

A.MM.1.5 - Define appropriate quantities for the purpose of descriptive modeling.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Unit 2: Analyzing Linear Inequalities	
Traditional (1 – 2 weeks)	**Block (3 – 6 days)**

Big Ideas: Patterning & Algebraic Reasoning and Mathematical Modeling

Standards Addressed in this Unit:

A.PAR.4: Create, analyze, and solve linear inequalities in two variables and systems of linear inequalities to model real-life phenomena.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.
NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives)

A.PAR.4.1 - Create and solve linear inequalities in two variables to represent relationships between quantities including mathematically applicable situations; graph inequalities on coordinate axes with labels and scales.
A.PAR.4.2 - Represent constraints of linear inequalities and interpret data points as possible or not possible.

A.PAR.4.3 - Solve systems of linear inequalities by graphing, including systems representing a mathematically applicable situation.

A.MM.1.1 - Explain applicable, mathematical problems using a mathematical model.
A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Unit 3: Investigating Rational and Irrational Numbers	
Traditional (1 –2 weeks)	**Block (3 – 6 days)**
Big Ideas: Numerical Reasoning and Mathematical Modeling	
Standards Addressed in this Unit: ***A.NR.5: Investigate rational and irrational numbers and rewrite expressions involving square roots and cube roots.*** ***A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.*** **NOTE: The following learning objective(s) will be addressed throughout the unit.**	
Suggested Clusters of Concepts (Learning Objectives)	
A.NR.5.1 - Rewrite algebraic and numeric expressions involving radicals.	
A.NR.5.2 - Using numerical reasoning, show and explain that the sum or product of rational numbers is rational, the sum of a rational number and an irrational number is irrational, and the product of a nonzero rational number and an irrational number is irrational.	
A.MM.1.1 - Explain applicable, mathematical problems using a mathematical model. A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems	

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Unit 4: Modeling and Analyzing Quadratic Functions

Traditional (6 – 7 weeks)	Block (18 – 21 days)

Big Ideas: Patterning & Algebraic Reasoning, Functional & Graphical Reasoning, and Mathematical Modeling

Standards Addressed in this Unit:

A.PAR.6: Build quadratic expressions and equations to represent and model real-life phenomena; solve quadratic equations in contextual situations.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.

NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives)

A.PAR.6.1 - Interpret quadratic expressions and parts of a quadratic expression that represent a quantity in terms of its context.

A.PAR.6.2 - Fluently choose and produce an equivalent form of a quadratic expression to reveal and explain properties of the quantity represented by the expression.

A.PAR.6.3 - Create and solve quadratic equations in one variable and explain the solution in the framework of applicable phenomena. *(See the Mathematical Modeling Framework and Statistical Reasoning Framework for contextual connections.)*

A.PAR.6.4 - Represent constraints by quadratic equations and interpret data points as possible or not possible in a modeling framework. *(See the Mathematical Modeling Framework and Statistical Reasoning Framework for contextual connections.)*

A.MM.1.1 - Explain contextual, mathematical problems using a mathematical model.

A.MM.1.2 - Create mathematical models to explain phenomena that exist in the natural sciences, social sciences, liberal arts, fine and performing arts, and/or humanities contexts.

A.MM.1.3 - Use units of measure (linear, area, capacity, rates, and time) as a way to make sense of conceptual problems; identify, use, and record appropriate units of measure within context, within data displays, and on graphs; convert units and rates using proportional reasoning given a conversion factor; use units within multi-step problems and formulas; interpret units of input and resulting units of output.

A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.

A.MM.1.5 - Define appropriate quantities for the purpose of descriptive modeling.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

Unit 4 *(continued)*: Modeling and Analyzing Quadratic Functions	
Traditional (6 – 7 weeks)	**Block (18 – 21 days)**

Big Ideas: Patterning & Algebraic Reasoning, Functional & Graphical Reasoning, and Mathematical Modeling

Standards Addressed in this Unit:

A.FGR.7: Construct and interpret quadratic functions from data points to model and explain real-life phenomena; describe key characteristics of the graph of a quadratic function to explain a contextual situation for which the graph serves as a model.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.
NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives

A.FGR.7.1 - Use function notation to build and evaluate quadratic functions for inputs in their domains and interpret statements that use function notation in terms of a given framework. *(See the Mathematical Modeling Framework and Statistical Reasoning Framework for contextual connections.)*

A.FGR.7.2 - Identify the effect on the graph generated by a quadratic function when replacing f(x) with f(x) + k, kf(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs.

A.FGR.7.3 - Graph and analyze the key characteristics of quadratic functions including contextual situations.

A.FGR.7.4 - Relate the domain and range of a quadratic function to its graph and, where applicable, to the quantitative relationship it describes.

A.FGR.7.5 - Rewrite a quadratic function representing a mathematically applicable situation to reveal the maximum or minimum value of the function it defines. Explain what the value describes in context.

A.FGR.7.6 - Create quadratic functions in two variables to represent relationships between quantities; graph quadratic functions on the coordinate axes with labels and scales.

A.FGR.7.7 - Estimate, calculate, and interpret the average rate of change of a quadratic function and make comparisons to the average rate of change of linear functions.

A.FGR.7.8 - Write a function defined by a quadratic expression in different but equivalent forms to reveal and explain different properties of the function.

A.FGR.7.9 - Compare characteristics of two functions each represented in a different way.

A.MM.1.1 - Explain contextual, mathematical problems using a mathematical model. A.MM.1.2 - Create mathematical models to explain phenomena that exist in the natural sciences, social sciences, liberal arts, fine and performing arts, and/or humanities contexts. A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.
A.MM.1.5 - Define appropriate quantities for the purpose of descriptive modeling.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Semester 2

Unit 5: Modeling and Analyzing Exponential Expressions and Equations

Traditional (2 – 3 weeks)	Block (6 – 9 days)

Big Ideas: Patterning & Algebraic Reasoning and Mathematical Modeling

Standards Addressed in this Unit:

A.PAR.8: Create and analyze exponential expressions and equations to represent and model real-life phenomena; solve exponential equations in mathematically applicable situations.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.

NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives)

A.PAR.8.1 - Interpret exponential expressions and parts of an exponential expression that represent a quantity in terms of its framework. *(See the Mathematical Modeling Framework and Statistical Reasoning Framework for contextual connections.)*

A.PAR.8.2 - Create exponential equations in one variable and use them to solve problems, including mathematically applicable situations.

A.PAR.8.3 - Create exponential equations in two variables to represent relationships between quantities, including in mathematically applicable situations; graph equations on coordinate axes with labels and scales.

A.PAR.8.4 - Represent constraints by exponential equations and interpret data points as possible or not possible in a modeling environment.

A.MM.1.1 - Explain applicable, mathematical problems using a mathematical model.

A.MM.1.2 - Create mathematical models to explain phenomena that exist in the natural sciences, social sciences, liberal arts, fine and performing arts, and/or humanities domains.

A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.

A.MM.1.5 - Define appropriate quantities for the purpose of descriptive modeling.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Unit 6: Analyzing Exponential Functions	
Traditional (4 – 5 weeks)	**Block (12 – 15 days)**

Big Ideas: Functional & Graphical Reasoning and Mathematical Modeling

Standards Addressed in this Unit:

A.FGR.9: Construct and analyze the graph of an exponential function to explain a mathematically applicable situation for which the graph serves as a model; compare exponential with linear and quadratic functions.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.

NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives)

A.FGR.9.1 - Use function notation to build and evaluate exponential functions for inputs in their domains and interpret statements that use function notation in terms of a context.

A.FGR.9.2 - Graph and analyze the key characteristics of simple exponential functions based on mathematically applicable situations.

A.FGR.9.3 - Identify the effect on the graph generated by an exponential function when replacing f(x) with f(x) + k, and k f(x), for specific values of k (both positive and negative); find the value of k given the graphs.

A.FGR.9.4 - Use mathematically applicable situations algebraically and graphically to build and interpret geometric sequences as functions whose domain is a subset of the integers

A.FGR.9.5 - Compare characteristics of two functions each represented in a different way.

A.MM.1.1 - Explain applicable, mathematical problems using a mathematical model.

A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Unit 7: Investigating Data	
Traditional (3 – 4 weeks)	**Block (9 – 12 days)**

Big Ideas: Data & Statistical Reasoning and Mathematical Modeling

Standards Addressed in this Unit:

A.DSR.10: Collect, analyze, and interpret univariate quantitative data to answer statistical investigative questions that compare groups to solve real-life problems; Represent bivariate data on a scatter plot and fit a function to the data to answer statistical questions and solve real-life problems.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.

NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives)

A.DSR.10.1 - Use statistics appropriate to the shape of the data distribution to compare center (median and mean) and variability (interquartile range, standard deviation) of two or more distributions by hand and using technology.
A.DSR.10.2 - Interpret differences in shape, center, and variability of the distributions in the framework, accounting for possible effects of extreme data points (outliers). *(NOTE: The problem framework should include contextual situations to apply the mathematical concept.)*

A.DSR.10.3 - Represent data on two quantitative variables on a scatter plot and describe how the variables are related.

A.DSR.10.4 - Interpret the slope (predicted rate of change) and the intercept (constant term) of a linear model in the framework of the data.
A.DSR.10.5 - Calculate the line of best fit and interpret the correlation coefficient, *r,* of a linear fit using technology. Use *r* to describe the strength of the goodness of fit of the regression. Use the linear function to make predictions and assess how reasonable the prediction is in context. *(NOTE: The problem framework should include contextual situations to apply the mathematical concept.)*

A.DSR.10.6 - Decide which type of function is most appropriate by observing graphed data.

A.DSR.10.7 - Distinguish between correlation and causation.

A.MM.1.1 - Explain contextual, mathematical problems using a mathematical model.
A.MM.1.2 - Create mathematical models to explain phenomena that exist in the natural sciences, social sciences, liberal arts, fine and performing arts, and/or humanities contexts.

A.MM.1.3 - Use units of measure (linear, area, capacity, rates, and time) as a way to make sense of conceptual problems; identify, use, and record appropriate units of measure within context, within data displays, and on graphs; convert units and rates using proportional reasoning given a conversion factor; use units within multi-step problems and formulas; interpret units of input and resulting units of output.

A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.

A.MM.1.5 - Define appropriate quantities for the purpose of descriptive modeling.

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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Unit 8: Algebraic Connections to Geometric Concepts	
Traditional (2 – 3 weeks)	**Block (6 – 9 days)**

Big Ideas: Geometric & Spatial Reasoning and Mathematical Modeling

Standards Addressed in this Unit:

A.GSR.3: Solve problems involving distance, midpoint, slope, area, and perimeter to model and explain real-life phenomena.

A.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics.

NOTE: The following learning objective(s) will be addressed throughout the unit.

Suggested Clusters of Concepts (Learning Objectives)
A.GSR.3.1 - Solve real-life problems involving slope, parallel lines, perpendicular lines, area, and perimeter.
A.GSR.3.2- Apply the distance formula, midpoint formula, and slope of line segments to solve real-world problems.
A.MM.1.1 - Explain contextual, mathematical problems using a mathematical model.
A.MM.1.3 - Use units of measure (linear, area, capacity, rates, and time) as a way to make sense of conceptual problems; identify, use, and record appropriate units of measure within context, within data displays, and on graphs; convert units and rates using proportional reasoning given a conversion factor; use units within multi-step problems and formulas; interpret units of input and resulting units of output.
A.MM.1.4 - Use various mathematical representations and structures with this information to represent and solve real-life problems.
A.MM.1.5 - Define appropriate quantities for the purpose of descriptive modeling.

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Unit 9: Culminating Capstone Unit	
Traditional (1 – 2 weeks)	**Block (2 – 4 days)**
ALL standards are addressed in this unit. ***The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)***	

Mathematical Practices (A.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.