

Algebra 1 Subject Group Overview

Unit Name		Relationships between Quantities and Expressions	Reasoning with Linear Equations and Inequalities	Modeling and Analyzing Quadratic Functions
Time Frame		4 Weeks	7 weeks	9 weeks (finish during Sem. 2)
Course Name: Algebra 1	Standards	MGSE9-12.N.RN.2, 3 MGSE9-12.N.Q.1, 2, 3 MGSE9-12.A.SSE.1, 1a, 1b MGSE9-12.A.APR.1	MGSE9-12.A.CED.1, 2, 3, 4 MGSE9-12.A.REI.1, 3, 5, 6, 10, 11, 12 MGSE9-12.F.BF.1, 1a, 2 MGSE9-12.F.IF.1, 2, 3, 4, 5, 6, 7, 7a, 9	MGSE9-12.A.SSE.2, 3, 3a, 3b MGSE9-12.A.CED.1, 2, 4 MGSE9-12.A.REI.4, 4a, 4b MGSE9-12.F.BF.1, 3* MGSE9-12.F.IF.1*, 2*, 4*, 5*, 6*, 7*, 7a, 8, 8a, 9* *These standards, as well as the ones listed below, are part of DOE unit 5 that will be included as part of unit 3. MGSE9-12.F.LE.1, 1a, 1b, 1c, 2, 3, 5
	Approaches To Learning Instructional Strategies	<ul style="list-style-type: none"> Understand and use mathematical notation Organize and depict information logically Use appropriate strategies for organizing complex information Draw reasonable conclusions and generalizations Test generalizations and conclusions Analyze complex concepts and project into their constituent parts and synthesize them into create new understanding Use models and simulations to explore complex systems and issues 	<ul style="list-style-type: none"> Understand and use mathematical notation Take effective notes in class Consider ideas from multiple perspectives Present information in a variety of formats and platforms 	<ul style="list-style-type: none"> Understand and use mathematical notation Use and interpret a range of discipline-specific terms and symbols Take effective notes in class Give and receive meaningful feedback Negotiate ideas and knowledge with peers and teachers Draw reasonable conclusions and generalizations Apply existing knowledge to generate new ideas, products or processes Apply skills and knowledge in unfamiliar situations
	Statement of Inquiry	Measurements help us to understand, make inferences, and draw conclusions about the world.	Modeling relationships through equivalent statements and patterns to promote food security and sustainability.	Modeling using a logical process helps us to understand the world.
	Global Context	Scientific and Technical Innovation	Scientific and technical innovation – Systems, models, methods Products, processes, solutions	Scientific and Technical Innovation Exploration: Systems, Models, Methods
	Key Concepts	Relationships	Form	Logic
Related Concept	Quantity, Equivalence, Measurement	Change, Generalization, Pattern, Representation	Generalization, Model Representation	

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Design Cycle Transdisciplinary	Math 5E Lesson Structure: Engage Explore Explain Extend Evaluate	Math 5E Lesson Structure: Engage Explore Explain Extend Evaluate	Math 5E Lesson Structure: Engage Explore Explain Extend Evaluate
MYP Assessments/ Performance Tasks	Common Unit Quizzes Common Unit Test MYP A	Common Unit Quizzes MYP Assessments – Rubrics A, B, D Common Unit Tests Test 1 – Solving Equations Test 2 – Solving Systems Test 3 – Cumulative	Common Unit Quizzes MYP Assessments – Rubrics A, B, C Test 1 – Factoring Test 2 – Solving Quadratic Equations Test 3 – Cumulative
Differentiation For Tiered Learners	<ul style="list-style-type: none"> ● SWD/504- Accommodations provided ● ELL- Five Principle ELL Curriculum Framework and Vocabulary Supports ● Intervention Support- Re-teaching Activities in Small Groups with Progress Monitoring ● Extensions- Enrichment Tasks and Projects ● Use of manipulatives & thinking maps ● Chunking of material & focus on power standards ● Guided notes with pictorial representations ● Interactive Notebooks ● Scaffolded lessons 	<ul style="list-style-type: none"> ● SWD/504- Accommodations provided ● ELL- Five Principle ELL Curriculum Framework and Vocabulary Supports ● Intervention Support- Re-teaching Activities in Small Groups with Progress Monitoring ● Extensions- Enrichment Tasks and Projects ● Use of manipulatives & thinking maps ● Chunking of material & focus on power standards ● Guided notes with pictorial representations ● Interactive Notebooks ● Scaffolded lessons 	<ul style="list-style-type: none"> ● SWD/504- Accommodations provided ● ELL- Five Principle ELL Curriculum Framework and Vocabulary Supports ● Intervention Support- Re-teaching Activities in Small Groups with Progress Monitoring ● Extensions- Enrichment Tasks and Projects ● Use of manipulatives & thinking maps ● Chunking of material & focus on power standards ● Guided notes with pictorial representations ● Interactive Notebooks ● Scaffolded lessons

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Unit Name		Modeling and Analyzing with Exponential Functions	Describing Data	Milestone Review
Time Frame		4 weeks	3 weeks	4 weeks
C o u r s e N a m e : A l g e b r a 1	Standards	MGSE9-12.A.CED.1, 2 MGSE9-12.F.BF.1, 1a, 2, 3* MGSE9-12.F.IF.1*, 2*, 3, 4*, 5*, 6*, 7*, 7e, 9* *These standards, as well as the ones listed below, are part of DOE unit 5 that will be included as part of unit 4. MGSE9-12.F.LE.1, 1a, 1b, 1c, 2, 3, 5	MGSE9-12.S.ID.1, 2, 3, 5, 6a, 6c, 7, 8, 9	All Algebra 1 Standards
	Approaches To Learning Instructional Strategies	<ul style="list-style-type: none"> ● Understand and use mathematical notation ● Take effective notes in class ● Structure information in summaries, essays, and reports ● Identify trends and forecast possibilities ● Make connections between various sources of information ● Present information in a variety of formats and platforms 	<ul style="list-style-type: none"> ● Identify trends and forecast possibilities ● Combine knowledge, understanding and skills to create products or solutions ● Interpret data 	
	Statement of Inquiry	Patterns and representations create relationships that can be used to determine opportunity and risk.	Exploring multiple representations of quantifiable data using models enhances understanding of relationships.	
	Global Context	Scientific and Technological Innovations Opportunity and Risk	Scientific and technical innovation	
	Key Concept	Relationships	Relationships	
Related Concepts	Patterns and Representation	Quantity; Representation		

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MYP Assessments/ Performance Tasks	Common Unit Test (MYP Rubric A) MYP Assessments – Rubrics C, D	Common Unit Test Common Unit Quizzes	
Differentiation For Tiered Learners	<ul style="list-style-type: none"> ● SWD/504- Accommodations provided ● ELL- Five Principle ELL Curriculum Framework and Vocabulary Supports ● Intervention Support- Re-teaching Activities in Small Groups with Progress Monitoring ● Extensions- Enrichment Tasks and Projects ● Use of manipulatives & thinking maps ● Chunking of material & focus on power standards ● Guided notes with pictorial representations ● Interactive Notebooks ● Scaffolded lessons 	<ul style="list-style-type: none"> ● SWD/504- Accommodations provided ● ELL- Five Principle ELL Curriculum Framework and Vocabulary Supports ● Intervention Support- Re-teaching Activities in Small Groups with Progress Monitoring ● Extensions- Enrichment Tasks and Projects ● Use of manipulatives & thinking maps ● Chunking of material & focus on power standards ● Guided notes with pictorial representations ● Interactive Notebooks ● Scaffolded lessons 	
Course Levels	Marietta City Schools offers Enhanced, Honors, Accelerated, and AP classes to provide differentiated learning experiences for students.		