

Algebra 1 Honors Subject Group Overview

Unit Name		Relationships between Quantities and Expressions	Reasoning with Linear Equations and Inequalities	Modeling and Analyzing with Exponential Functions
Time Frame		4 Weeks	9 weeks	4 weeks
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.CED.1, 2 MGSE9-12.F.BF.1, 1a, 2, 3 MGSE9-12.F.IF.1, 2, 3, 4, 5, 6, 7, 7e, 9
	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 ● 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
	Statement of Inquiry	Measurements help us to understand, make inferences, and draw conclusions about the world.	The way relationships change causes generalizations and patterns.	Patterns and representations create relationships that can be used to determine opportunity and risk.
	Global Context	Scientific and Technical Innovation	Scientific and technical innovation – Systems, models, methods Products, processes, solutions	Scientific and Technological Innovations Opportunity and Risk
	Key Concepts	Relationships	Form	Relationships
	Related Concept	Quantity, Equivalence, Measurement	Change, Generalization, Pattern, Representation	Patterns and 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 Assessments – Rubrics A	Common Unit Quizzes Common Unit Tests <ul style="list-style-type: none"> ● Test 1 – Linear Equations and Systems ● Performance Assessment MYP Assessments – Rubrics A, B	Common Unit Quiz Common Unit Test MYP Assessments – Rubrics D
	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 Quadratic Functions	Comparing and Contrasting Functions	Describing Data
Time Frame		6 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.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	MGSE9-12.F.LE.1, 1a, 1b, 1c, 2, 3, 5 MGSE9-12.F.BF.3 MGSE9-12.F.IF.1, 2, 4, 5, 6, 7, 9	MGSE9-12.S.ID.1, 2, 3, 5, 6a, 6c, 7, 8, 9
	Approaches To Learning Instructional Strategies	<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 	<ul style="list-style-type: none"> ● Understand and use mathematical notation ● Use and interpret a range of discipline-specific terms and symbols ● Give and receive meaningful feedback ● Keep an organized and logical system of information files/notebooks ● Perseverance <ul style="list-style-type: none"> - Demonstrate persistence and perseverance ● Consider content <ul style="list-style-type: none"> - What did I learn about today? - What don't I yet understand? - What questions do I have now? ● Make connections between various sources of information ● Gather and organize relevant information to formulate an argument ● Apply existing knowledge to generate new ideas, products or processes ● Combine knowledge, understanding and skills to create products or solutions 	<ul style="list-style-type: none"> ● In order for students to be able to communicate complete, coherent and concise mathematical lines of reasoning, students must organize and interpret data using both analogue and digital tools.
	Statement of Inquiry	Modeling using a logical process helps us to understand the world.	Model relationships with functions and different representations by looking to promote global sustainability of ecosystems.	Principles and discoveries often arise when patterns in the natural world are described as relationships as can be shown through average energy consumption.
	Global Context	Scientific and Technical Innovation Exploration: Systems, Models, Methods	Globalization and Sustainability	Scientific and technical innovation

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Key Concept	Logic	Relationships	Relationships
Related Concepts	Generalization, Model Representation	Justification Models	Patterns
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 MYP Assessments – Rubrics A, B, C Test 1 – Factoring & Solving Quadratics Test 2 – Cumulative	Common Unit Test MYP Assessment – Rubric C Rubric D	Common Unit Tests 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 	<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.		