MCS MYP Enhanced Algebra: C&C (Grade 8) Subject Group Overview

Unit Name	U1: Modeling Linear Functions	U2: Analyzing Systems of Linear Equations and Inequalities	U3: Investigating Rational & Irrational Numbers	U4: Modeling and Analyzing Quadratic Functions	U5: Modeling and Analyzing Exponential Expressions, Equations, and Functions	U6: Investigating Data and Statistical Reasoning	U7: Algebraic Connections to Geometric Concepts	U8: Culminating Capstone Unit
Time Frame	5- 6 weeks	3- 4 weeks	2-3 weeks	5- 6 weeks	4- 5 weeks	3- 4 weeks	3 – 4 weeks	1-2 weeks
Standards	8.PAR.3 8.PAR.4 8.FGR.5 A.FGR.2 A.MM.1 A.MP.1-8 MCS Gifted Standards: MCS.Gifted.S3B.	8.FGR.7 A.PAR.4 A.MM.1 A.MP.1-8 MCS Gifted Standards: MSC.Gifted.S2B.	8.NR.1 8.NR.2 A.NR.5 A.MM.1 A.MP.1-8 MCS Gifted Standards: MSC.Gifted.S2B. MSC.Gifted.S3B.	A.PAR.6 A.FGR.7 A.MM.1 A.MP.1-8 MCS Gifted Standards: MSC.Gifted.S3B. MSC.Gifted.S4B.	A.PAR.8 A.FGR.9 A.MM.1 A.MP.1-8 MCS Gifted Standards: MSC.Gifted.S2B. MSC.Gifted.S4B.	8.FGR.6 A.DSR.10 A.MM.1 A.MP.1-8 MCS Gifted Standards: MSC.Gifted.S2B. MSC.Gifted.S3B. MSC.Gifted.S4B.	8.GSR.8 A.GSR.3 A.MM.1 A.MP.1-8 MCS Gifted Standards: MSC.Gifted.S3B. MSC.Gifted.S4B. MSC.Gifted.S5B MSC.Gifted.S6B.	ALL STANDARDS A.MP.1-8

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Approaches To Learning Instructional Strategies	**Category:** Communication Skills **Cluster:** Communication **Skill Indicator:** Understand and use mathematical notation **Category:** Thinking Skills **Cluster:** Critical-thinking **Skill Indicator:** Gather and organize relevant information to formulate an argument.	**Category:** Communication Skills **Cluster:** Communication **Skill Indicator:** Use a variety of speaking techniques to communicate with a variety of audiences, Interpret and use effectively modes of non-verbal communication	**Category:** Self-Management Skills **Cluster:** Reflection **Skill Indicator:** Perseverance - demonstrate persistence and perseverance **Category:** Thinking Skills **Cluster:** Transfer **Skill Indicator:** Combine knowledge, understanding and skills to create products or solutions	**Category:** Thinking Skills **Cluster:** Critical-thinking **Skill Indicator:** Practice Observing carefully in order to recognize problems **Category:** Self-Management Skills **Cluster:** Affective **Skill Indicator:** Demonstrate persistence and perseverance **Category:** Research Skills **Cluster:** Information Literacy **Skill Indicator:** Understand and use technology systems	**Category:** Self-Management Skills **Cluster:** Organization **Skill Indicator:** Use appropriate strategies for organizing complex information	**Category:** Communication Skills **Cluster:** Communication **Skill Indicator:** Negotiate ideas and knowledge with peers and teachers **Category:** Research Skills **Cluster:** Information literacy **Skill Indicator:** Finding, interpreting, judging and creating information	**Category:** Thinking Skills **Cluster:** Creative-Thinking **Skill Indicator:** Apply existing knowledge to generate new ideas, products or process **Category:** Research Skills **Cluster:** Information literacy **Skill Indicator:** Finding, interpreting, judging and creating information	**Category:** Thinking **Cluster:** Critical Thinking, Creative Thinking, Transfer **Skill Indicator:** Analyzing and evaluating issues and ideas and Utilizing skills, knowledge in multiple contexts, and generating novel ideas and considering new perspective, synthesizing
Statement of Inquiry	Students will interpret real life scenarios to enhance their understanding of patterns.	Analyzing systems helps us make logical decisions.	Exploring the relationships between rational and irrational numbers through models can enhance our understanding of their properties and applications in scientific and technical innovation.	Investigating the relationship between quadratic functions and their models through representation and systems using scientific and technical innovations can lead to deeper understanding of their behavior and applications.	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.	Generalizing relationships between measurements can develop principles, processes and solutions.	
Global Context	Identities and Relationships	Scientific and Technical Innovation	Scientific and Technical Innovation	Scientific and Technical Innovation	Scientific and Technical Innovation	Scientific and Technical Innovation	Orientation in time and space	

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Key Concepts	Form	Logic	Relationships	Relationships	Logic	Relationships	Form	
Related Concepts	Change, Model, Pattern	Justification, Systems	Equivalence, Models	Representation, Systems, and Models	Generalization, Pattern, Representation	Change, Space, Quantity	Measurement, Models	
Design Cycle Transdisciplinary	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating	• Inquiring and Analyzing • Developing Ideas • Creating a Solution • Evaluating
MYP Assessments/ Performance Tasks	Unit 1 CFA Unit 1 SA Unit 1 ReTest MYP Assessment: Catering Project **Criteria A** (Knowing and Understanding) **Criteria B** (Investigating Patterns) **Criteria C** (Communication) **Criteria D** (Applying Math to real-world context)	*Unit 2 CFA* *Unit 2 SA* *Unit 2 ReTest* *MYP Assessment*: (DOE) Solutions to Systems of Linear Inequalities in One Variable **Criteria D** (Applying Math to real-world context)	*Unit 3 CFA* *Unit 3 SA* *Unit 3 ReTest* *MYP Assessment*: Evaluating Statements about Irrational and Rational Numbers **Criteria A** (Knowing and Understanding) **Criteria C** (Communication)	*Unit 4 CFA* *Unit 4 SA* *Unit 4 ReTest* *MYP Assessment*: (DOE) Seeing Structure in Expressions **Criteria A** (Knowing and Understanding) **Criteria B** (Investigating Patterns) **Criteria C** (Communication)	Unit 5 CFA Unit 5 SA Unit 5 ReTest *MYP Assessment*: (DOE) Paper Folding **Criteria A** (Knowing and Understanding), **Criteria B** (Investigating Patterns)	Unit 6 CFA Unit 6 SA Unit 6 ReTest *MYP Assessment*: (DOE)Variation in Math Classes **Criteria A** (Knowing and Understanding) **Criteria B** (Investigating Patterns) **Criteria C** (Communication)	Unit 7 CFA Unit 7 SA Unit 7 ReTest *MYP Assessment*: (DOE) City Design **Criteria D** (Applying Math to real-world context)	Grade 8 EOG Algebra Concepts and Connections EOC
Differentiation For Tiered Learners	Marietta City Schools teachers provide specific differentiation of learning experiences for all students. Details for differentiation for learning experiences are included on the district unit planners.							