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

| Unit Name  | U1: Modeling Linear<br>Functions  | U2: Analyzing Systems<br>of Linear Equations and<br>Inequalities   | U3: Investigating<br>Rational & Irrational<br>Numbers   | U4: Modeling and<br>Analyzing Quadratic<br>Functions   | U5: Modeling and<br>Analyzing Exponential<br>Expressions, Equations,<br>and Functions   | U6: Investigating Data<br>and Statistical<br>Reasoning   | U7: Algebraic<br>Connections to<br>Geometric Concepts   | U8: Culminating<br>Capstone Unit   |
|--|---|--|---|--|---|--|---|------------------------------------|
| Time<br>Frame                                    | 5-6 weeks   | 3-4 weeks  | 2-3 weeks   | 5-6 weeks  | 5-6 weeks   | 3-4 weeks  | 3 – 4 weeks   | 1-2 weeks                          |
| Standards  | 8.PAR.3<br>8.PAR.4<br>8.FGR.5<br>A.FGR.2<br>A.MM.1 A.MP.1-8<br>MCS Gifted Standards:<br>MCS.Gifted.S3B.     | 8.FGR.7<br>A.PAR.4<br>A.MM.1<br>A.MP.1-8<br>MCS Gifted Standards:<br>MSC.Gifted.S2B.                         | 8.NR.1<br>8.NR.2<br>A.NR.5<br>A.MM.1<br>A.MP.1-8<br>MCS Gifted Standards:<br>MSC.Gifted.S2B.<br>MSC.Gifted.S3B.   | A.PAR.6<br>A.FGR.7<br>A.MM.1<br>A.MP.1-8<br>MCS Gifted Standards:<br>MSC.Gifted.S3B.<br>MSC.Gifted.S4B.  | A.PAR.8<br>A.FGR.9<br>A.MM.1<br>A.MP.1-8<br>MCS Gifted Standards:<br>MSC.Gifted.S2B.<br>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.S5B                      | ALL STANDARDS<br>A.MP.1-8          |
| Approaches To Learning Instructiona I Strategies | Category: Communication Skills Cluster: Communication Skill Indicator: Make Inferences and Draw Conclusions | Category: Communication Skills Cluster: Communication Skill Indicator: Give and receive meaningful feedback. | Category: Self-Management Skills Cluster: Reflection Skill Indicator: Perseverance - demonstrate persistence and perseverance   | Category: Self-Management Skills Cluster: Affective Skill Indicator: Demonstrate persistence and perseverance  | 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: Thinking Skills Cluster: Creative-Thinking Skill Indicator: Apply existing knowledge to generate new ideas, products or process | Summary of all ATL's will be used. |
| Statement of<br>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.  |                                    |

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| Global<br>Context                                | Identities and<br>Relationships  | Scientific and Technical<br>Innovation   | Scientific and Technical<br>Innovation   | Scientific and Technical<br>Innovation  | Scientific and Technical<br>Innovation   | Scientific and Technical<br>Innovation   | Orientation in time and space  |  |
|--|--|--|--|---|--|--|--|--|
| Key<br>Concepts                                  | Form   | Logic  | Relationships  | Relationships   | Logic  | Relationships  | Form   |  |
| Related<br>Concepts                              | Change, Model, Pattern   | Justification, Systems   | Equivalence, Models  | Representation,<br>Systems, and Models  | Generalization, Pattern,<br>Representation   | Change, Space,<br>Quantity   | Measurement, Models  |  |
| Design<br>Cycle<br>Transdisci<br>plinary         | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul>   | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul>   | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul>                       | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul>  | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul> | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul> | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul> | <ul> <li>Inquiring and<br/>Analyzing</li> <li>Developing Ideas</li> <li>Creating a Solution</li> <li>Evaluating</li> </ul> |
| MYP<br>Assessme<br>nts/<br>Performan<br>ce 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 (DOE) Criteria C (Communication) | Unit 4 CFA Unit 4 SA Unit 4 ReTest  MYP Assessment: Mid Unit Quiz Criteria A (Knowing and Understanding), PatternsCriteria B (Investigating Patterns) DOE Seeing Structure in Expressions DiagnosticCriteria C (Communication), | Unit 5 CFA Unit 5 SA Unit 5 ReTest  MYP Assessment: Criteria A (Knowing and Understanding), DOE Paper Folding              | Unit 6 CFA Unit 6 SA Unit 6 ReTest  MYP Assessment: Penny a Day Criteria C (Communication),                                | Unit 7 CFA Unit 7 SA Unit 7 ReTest  MYP Assessment: City Design Criteria D (Applying Math to real-world context) -         | Grade 8 EOG<br>Algebra Concepts and<br>Connections EOC   |

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| Differenti | 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. |
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| ation For  |  |
| Tiered     |  |
| Learners   |  |
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