

MCS Advanced Studies Grade 7 Math Subject Group Overview

Unit Name	Unit 1- Operations with Rational Numbers	Unit 2- Expressions and Equations	Unit 3- Ratios and Proportional Relationships	Unit 4- Geometry	Unit 5- Inferences	Unit 6- Probability	Unit 7- Show What We Know
Time Frame	7 Weeks	6 Weeks	5 Weeks	6 Weeks	5 Weeks	4 Weeks	3 Weeks
Standards	MGSE7.NS.1 MGSE7.NS.1a MGSE7.NS.1b MGSE7.NS.1c MGSE7.NS.1d MGSE7.NS.2 MGSE7.NS.2a MGSE7.NS.2b MGSE7.NS.2c MGSE7.NS.2d SE7.NS.3	MGSE7.EE.1 MGSE7.EE.2 MGSE7.EE.3 MGSE7.EE.4 MGSE7.EE.4a MGSE7.EE.4b MGSE7.EE.4c	MGSE7.RP.1 MGSE7.RP.2 MGSE7.RP.2a MGSE7.RP.2b MGSE7.RP.2c MGSE7.RP.2d MGSE7.RP.3 MGSE7.G.1	MGSE7.G.2 MGSE7.G.3 MGSE7.G.4 MGSE7.G.5 MGSE7.G.6	MGSE7.SP.1 MGSE7.SP.2 MGSE7.SP.3 MGSE7.SP.4	MGSE7.SP.5 MGSE7.SP.6 MGSE7.SP.7 MGSE7.SP.7a MGSE7.SP.7b MGSE7.SP.7c MGSE7.SP.8 MGSE7.SP.8a MGSE7.SP.8b MGSE7.SP.8c	All Standards

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Approaches To Learning Instructional Strategies	<p>Category: Social Cluster: Collaboration Skills Skill Indicator: Give and receive meaningful feedback.</p> <p>Category: Thinking Cluster: Critical Thinking, Creative Thinking & Transfer Skill Indicator: Apply skills and knowledge in unfamiliar situations.</p>	<p>Category: Social Cluster: Collaboration Skills Skill Indicator: Give and receive meaningful feedback.</p> <p>Category: Self Management Cluster: Organization, Affective, & Reflection Skills Skill Indicator: Practice “bouncing back” after adversity, mistakes, and failures</p>	<p>Category: Social Cluster: Collaboration Skills Skill Indicator: Give and receive meaningful feedback.</p> <p>Category: Thinking Cluster: Critical Thinking, Creative Thinking & Transfer Skill Indicator: Draw reasonable conclusions and generalizations</p>	<p>Category: Social Cluster: Collaboration Skills Skill Indicator: Give and receive meaningful feedback.</p> <p>Category: Self Management Cluster: Organization, Affective, & Reflection Skills Skill Indicator: Keep an organized and logical system of information files/notebooks.</p> <p>Category: Thinking Cluster: Critical Thinking, Creative Thinking & Transfer Skill Indicator: Apply skills and knowledge in unfamiliar situations.</p>	<p>Category: Research Cluster: Information Literacy & Media Literacy Skill Indicator: Collect and analyze data to identify solutions and make informed decisions.</p> <p>Category: Thinking Cluster: Critical Thinking, Creative Thinking & Transfer Skill Indicator: Draw reasonable conclusions and generalizations</p>	<p>Category: Social Cluster: Collaboration Skills Skill Indicator: Give and receive meaningful feedback.</p> <p>Category: Self Management Cluster: Organization, Affective, & Reflection Skills Skill Indicator: Keep an organized and logical system of information files/notebooks.</p>	<p>Category: Social Cluster: Collaboration Skills Skill Indicator: Give and receive meaningful feedback.</p> <p>Category: Thinking Cluster: Critical Thinking, Creative Thinking & Transfer Skill Indicator: Use models and simulations to explore complex systems and issues</p>
Statement of Inquiry	Mathematical models can help people represent real world relationships using operations with rational numbers	Logic can be used to justify equivalent relationships.	Identifying proportional relationships can help simplify decision-making.	We can use formulas to model structures and relationships in the real world.	We can interpret form and chance to make generalizations about populations.	Decisions reached through logic may not always reflect beliefs about fairness.	A logical process helps to model and generalize the natural world.
Global Context	Scientific and technical innovation	Identities and Relationships	Globalization and Sustainability	Orientation in space and time	Fairness and Development	Fairness and development	Identities and Relationships

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Key Concepts	Relationships The connections and associations between properties, objects, people and ideas.	Relationships The connections and associations between properties, objects, people and ideas.	Relationships The connections and associations between properties, objects, people and ideas.	Form The shape and underlying structure of an entity or piece of work, including its organization, essential nature and external appearance.	Form The shape and underlying structure of an entity or piece of work, including its organization, essential nature and external appearance.	Logic A method of reasoning and a system of principles used to build arguments and reach conclusions.	Logic A method of reasoning and a system of principles used to build arguments and reach conclusions.
Related Concepts	Model, Representation	Equivalence, Justification	Equivalence, Simplification	Measurement, Space	Change, Generalization	Generalization, Justification, Model	Generalization
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
Tasks that Promote Reasoning, Critical Thinking and Problem Solving	Tasks specifically aligned to NS.1 and NS.2 to promote reasoning, critical thinking and elicit problem solving.	Tasks specifically aligned to EE.1 , EE.3 , and EE.4 to promote reasoning, critical thinking and elicit problem solving.	Tasks specifically aligned to RP.2 and RP.3 to promote reasoning, critical thinking and elicit problem solving.	Tasks specifically aligned to G.6 to promote reasoning, critical thinking and elicit problem solving.	Tasks specifically aligned to SP.4 to promote reasoning, critical thinking and elicit problem solving.	Tasks specifically aligned to SP.5 and SP.7 to promote reasoning, critical thinking and elicit problem solving.	Tasks specifically aligned to culminate several standards for students to apply and extend skills cultivated throughout the course.
MYP Assessments/ Performance Tasks	Unit 1 CFA Unit 1 SA Criteria A (Knowing and Understanding) and Criteria D (Applying Math to real-world context)	Unit 2 CFA Unit 2 SA Criteria A (Knowing and Understanding), Criteria B (Investigating Patterns), Criteria C (Communication), Criteria D (Applying Math to real-world context)	Unit 3 CFA Unit 3 SA C Criteria C (Communication), Criteria D (Applying Math to real-world context)	Unit 4 CFA Unit 4 SA Criteria A (Knowing and Understanding), Criteria C (Communication)	Unit 5 CFA Unit 5 SA Criteria A (Knowing and Understanding), Criteria D (Applying Math to real-world context)	Unit 6 CFA Unit 6 SA Criteria B (Investigating Patterns),	Grade 7 EOG

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	Differentiation For Tiered Learners	Marietta City Schools teachers provide specific differentiation of learning experiences for all students. Details for differentiation for common learning experiences are included on the district unit planners.
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