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| **Content Area** | Mathematics | | | **Grade Level** | 8th Grade | | |
| **Course Name/Course Code** |  | | | | | | |
| **Standard** | **Grade Level Expectations (GLE)** | | | | | | **GLE Code** |
| 1. Number Sense, Properties, and Operations | 1. In the real number system, rational and irrational numbers are in one to one correspondence to points on the number line | | | | | | MA10-GR.8-S.1-GLE.1 |
| 1. Patterns, Functions, and Algebraic Structures | 1. Linear functions model situations with a constant rate of change and can be represented numerically, algebraically, and graphically | | | | | | MA10-GR.8-S.2-GLE.1 |
| 1. Properties of algebra and equality are used to solve linear equations and systems of equations | | | | | | MA10-GR.8-S.2-GLE.2 |
| 1. Graphs, tables and equations can be used to distinguish between linear and nonlinear functions | | | | | | MA10-GR.8-S.2-GLE.3 |
| 1. Data Analysis, Statistics, and Probability | 1. Visual displays and summary statistics of two-variable data condense the information in data sets into usable knowledge | | | | | | MA10-GR.8-S.3-GLE.1 |
| 1. Shape, Dimension, and Geometric Relationships | 1. Transformations of objects can be used to define the concepts of congruence and similarity | | | | | | MA10-GR.8-S.4-GLE.1 |
| 1. Direct and indirect measurement can be used to describe and make comparisons | | | | | | MA10-GR.8-S.4-GLE.2 |
| **Colorado 21st Century Skills**    **Critical Thinking and Reasoning:** *Thinking Deeply, Thinking Differently*  **Information Literacy:** *Untangling the Web*  **Collaboration:** *Working Together, Learning Together*  **Self-Direction:** *Own Your Learning*  **Invention:** *Creating Solutions* | | **Mathematical Practices:**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. | | | | | |
| **Unit Titles** | | | **Length of Unit/Contact Hours** | | | **Unit Number/Sequence** | |
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| **Unit Title** |  | | | **Length of Unit** |  |
| **Focusing Lens(es)** |  | **Standards and Grade Level Expectations Addressed in this Unit** |  | | |
| **Inquiry Questions (Engaging- Debatable):** |  | | | | |
| **Unit Strands** |  | | | | |
| **Concepts** |  | | | | |

| **Generalizations**  **My students will Understand that…** | **Guiding Questions**  **Factual Conceptual** | |
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| **Key Knowledge and Skills:**  **My students will…** | *What students will know and be able to do are so closely linked in the concept-based discipline of mathematics. Therefore, in the mathematics samples what students should know and do are combined.* |
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| **Critical Language:** includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.  EXAMPLE: A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: *“Mark Twain exposes the hypocrisy of slavery through the use of satire.”* | | |
| **A student in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ can demonstrate the ability to apply and comprehend critical language through the following statement(s):** | |  |
| **Academic Vocabulary:** |  | |
| **Technical Vocabulary:** |  | |