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| **School Year** | 2016-2017 | **Teacher Name** | Joni Sellars |
| **Room/Office** | 232 |  |  |
| **Email Address** | Joni.sellars@adams12.org |  |  |

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| **Course Name** | Contemporary Math in Context 1 (CMIC 1) | | |
| **Course Description** | CMIC 1 begins the integrated development of high school mathematics. Students will develop the ability to recognize and describe important patterns that relate quantitative variables, visual relationships and statistical relationships; to use data tables, graphs, words and symbols to represent these relationships; and to use reasoning and calculating tools to answer questions and solve problems. Focused units of study include: variables and functions, algebraic expressions and recurrence relations; coordinate graphing, data tables and spread sheets; equations and inequalities. Other topics include distributions of data, dot plots, histograms, and box plots; measures of center and their properties and measures of variability. Linear functions, slope of line, rate of change, data patterns, solving linear equations and inequalities, and equivalent linear expressions are included. The concepts of exponential growth and decay functions, data modeling, growth and decay rates, half-life and doubling time, compound interest, and properties of exponents will be developed. In the math standard of Shape and Geometric Relationships students will cover triangle inequality, congruence conditions, special quadrilaterals, Pythagorean Theorem, properties of polygons, and properties of polyhedral and Platonic solids. The math standard of Patterns, Functions, and Algebraic Relationships continues with quadratic functions and their graphs, applications to projectile motion and economic problems, expanding and factoring quadratic expressions, and solving quadratic equations. The math standard of Statistics and Probability is explored including sample spaces, equally-likely outcomes, probability distributions, mutually exclusive events, Addition Rule, simulation, random digits, discrete and continuous random variable, Law of Large Numbers, and geometric probability. | | |
| **Unit of Study** | **Grade Level Expectations/Content Standards** | **Approximate Time Spent or Percent of time Spent** | **Targeted Date of Assessment** |
| Unit 3:  Linear Functions | * Recognize and represent linear relationships between variables * Use tables, graphs and algebraic expressions for linear functions to solve problems involving   constant rate of change or slope | 34 days | 10/07/2016 |
| Unit 1:  Patterns of Change | * Recognize and describe important patterns that relate quantitative variables * Use and interpret tables, graphs, words and symbols to represent relationships | 10 days | 10/20/2016 |
| Unit 5:  Exponential Functions | * Recognize and represent exponential growth and decay patterns in symbolic form * Solve problems that involve exponential change | 35 days | 12/09/2016 |
| Unit 6:  Patterns in Shape | * Visualize, describe, and represent with drawings two- and three-dimensional shapes * Examine shape properties and use to solve problems | 20 days | 2/01/2017 |
| Unit 2:  Patterns in Data | * Summarize and interpret sets of data using measures of center and variability | 18 days | 2/28/2017 |
| Unit 7:  Quadratic Functions | * Recognize and represent quadratic relationships between variables using tables, graphs and symbolic formulas * Solve problems involving quadratic functions * Express quadratic polynomials in equivalent factored and expanded forms | 35 days | 4/07/2017 |
| Unit 8:  Patterns in Chance | * Solve probability problems by constructing samples spaces * Find approximate solutions to more complex problems by using simulation | 19 days | 5/17/2017 |

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| **Grading Scale** | | **Grade Percentages/Weights** | |
| **A** | 90-100 | **Formative\***  20% | **Summative\***  80% |
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| **B** | 80-89 |
| **C** | 70-79 |
| **D** | 60-69 | **\*Weekly progress grades are posted at https://ic.adams12.org/campus/portal/adams12.isp** | |
| **F** | 59 or below |

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| **General Expectations**   * Grades are based upon the demonstration of proficiency on units associated with a standard given during each formative or summative assessment. Formative grades in addition to summative unit assessments will be used to holistically determine your grade. * **Summative: 80%** Summative measures of achievement are taken when unit mastery is expected. (i.e., unit tests, culmination of a project, embedded assessments, etc.) * **Formative: 20%** Formative assessments measure the scaffolding skills and/or content embedded in the unit. Formative assessments are taken frequently, after a student has practiced a skill or become familiar with content. Examples of formative assessments include but are not limited to exit tickets, paragraphs, oral check for understanding, warm-ups, stages in a large project, etc. * Assessments will be graded based on teacher/district/state rubrics. * On group projects, students will receive a grade for individual work and a group grade. * Grades are based on achievement of Content Standards and Grade Level Expectations. |
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| **Class Expectations**  **Missing or incomplete assignments/assessments:** Superintendent Policies 6280 Homework and 6281 Make-Up Work, will be followed for this course. |
| **Additional Help:**  I will be available in room 232 after school most Mondays, Tuesdays, Thursdays and Fridays to give extra help. Please let me know if you plan on stopping by. Remember every other Wednesday morning will also be help time.  **Materials and Supplies Needed Daily**  COMPOSITION Book (Toolkit), 70 count notebooks (8-10 recommended for whole year), Pencil , Textbook: Textbook: *Contemporary Mathematics in Context, Course 1*, Calculator: TI83 or 84 (will be provided in class if student doesn’t have one)  **Accommodations**  A variety of teaching techniques are used to meet the diverse needs of students. I am available by email to set up an  appointment to discuss concerns or needs of students with special needs.  **Assessments Used To Evaluate Student Progress**  Assignments, Investigations, Observations, Participation, Quizzes, and Tests  **Motivation Used**  A variety of hands-on techniques, investigations, real-world contexts and group work that engage and stimulate students to think about math are a part of this curriculum.  Students are encouraged to be engaged and motivated in the completion of their assignments. |
| **Student Expectations** |