**Conyers Middle School**

**Almeca Ross**

**12/1/2014 – 12/5/2014**

**“Honors and regular Math”**

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| **Standards/Elements** | | **6 EE 5MCC6.EE.5**  **Understand solving an equation or Inequality as A process of answering A question:**  **Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.**  **MCC6.EE.6**  **Use variables to represent numbers and write expressions when solving a real ‐ world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.**  **MCC6.EE.7**  **Solve real ‐ world and mathematical problems by writing and solving equations of the form x + p = q px=q for cases in which p,q and x are all nonnegative rational numbers.** | | | | |
| **Essential Questions** | | How is an equation like a balance? How can the idea of balance help me solve an equation?  What strategies can I use to help me understand and represent real situations using proportions, equations and inequalities? How can I write, interpret and manipulate proportions, equations, and inequalities?  How can I solve a proportion and an equation?  How can I tell the difference between an expression, equation and an inequality?  How are the solutions of equations and inequalities different?  What does an equal sign mean mathematically?  How can proportions be used to solve problems?  How can proportional relationships be described using the equation y= kx?  How can proportional relationships be represented using rules, tables, and graphs?  How can the graph of y= kx be interpreted for different contexts?  How does a change in one variable affect the other variable in a given situation?  Which tells me more about the relationship I am investigating, a table, a graph or a formula? | | | | |
| **Enduring Understandings** | | Represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic rules.  Relate and compare different forms of representation for a relationship.  Use values from specified sets to make an equation or inequality true.  Develop an initial conceptual understanding of different uses of variables.  Graphs can be used to represent all of the possible solutions to a given situation.  Many problems encountered in everyday life can be solved using proportions, equations or inequalities.  Students will solve one-step equations. | | | | |
| **Essential Vocabulary** | | NUMBER SENTENCE: A number sentence is a statement of equality (or inequality) between two numerical expressions.  TRUTH VALUES OF A NUMBER SENTENCE: A number sentence that is an equation is said to be true if both numerical expressions evaluate to the same number; it is said to be false otherwise. True and false are called truth values.  Number sentences that are inequalities also have truth values. For example, 3<4, 6+8>15-12, and (15+3)^2<1000-32 are all true number sentences, while the sentence 9>3(4) is false.  VARIABLE: A variable is a symbol (such as a letter) that represents a number (i.e., it is a placeholder for a number).  A variable is a placeholder for “a number” that does not “vary.”  EXPRESSION: An expression is a numerical expression or a result of replacing some (or all) of the numbers in a numerical expression with variables.  EQUATION: An equation is a statement of equality between two expressions.  If A and B are two expressions in the variable x, then A=B is an equation in the variable x. | | | | |
| **Learning Format** (*Highlight All That Apply)*  Whole Group  Cooperative Group Flexible Group  Collaborative Pair Centers/Stations  **Other (Please list):** | | | **Technology Usage**  Teacher: Overhead, manipulatives    Student: Overhead. manipulatives | | **Assessment** (*Highlight All That Apply)*  Student Conferencing Performance Task  Project Class Presentation  Test Quiz  Homework Ticket Out The Door   CPS Response  Other (Please list): | |
|  | **Monday** | | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **Study Skills Plan** | Study for Benchmark Work on Packets  Remediation | | Study for Benchmark  Work on Packets Remediation | Study for Benchmark  Work on Packets Remediation | Study for Benchmark  Work on Packets Remediation | Study for Benchmark  Work on Packets Remediation |
| **Warm-Up/Hook** | Discuss with students the difference between truth and false by asking very basic questions.  Did the sun rise today? There are 25 hours in a day. George Washington was the first president of the United States. | | State whether these statements are true or false.  1)4+5>9  2) 3∙6=18  3) 32>64/4  4) 78-15<68  5) 22≥11+12 | Division of Fractions fluency sprint. 5min  Opening: 5 min  1) 3+g=15  2) 30>2d  3) 15/f<5  4) 42≤50-m | Students will be led by teacher to solve equations by diagrams. Addition and Subtraction | Students will be led by teacher to solve equations by diagrams. Multiplication and Division |
| **Resource Materials** | Engage Nyc Topic G lesson 23 | | Engage Nyc Topic G Lesson 24 | Engage Nyc Topic G Lesson 25 | Engage Nyc Topic G Lesson 26 | Engage Nyc Topic G Lesson 27 |
| https://www.engageny.org/resource/grade-6-mathematics-module-4-topic-g-lesson-23 | | | | | |
| **Instructional Activities/ Strategies** | One student will be measured on the tape measurer of the door. A student will be selected and other students compared to the height. The students will have to determine whether the student is greater than or less than.  In a three column graphic organizer determine what =, <, >,<, > Column 1 write the symbol Column 2 write what the symbol means and column 3 give an example | | Students complete truth values for table of equations and inequalities.  Students will work in pairs to complete several problems to determine if they understand the concept of t/f statements.  Students will analyze 4 number sentences for truth value and if they are false, make them to true and if they are true, make them false.  TOTD | Students will find the truth value of 5 equations. Teacher will discuss with students what it means to have a solution.  Students will find the number sentences. | Students initially will be guided by teacher to create diagrams that model one step equations.  Students will take one equation and make a poster from the equations to represent. | Students initially will be guided by teacher to create diagrams that model one step equations. Multiplication and Division.  Students will take one equation and make a poster from the equations to represent. |
| **Differentiation** | Teacher led if necessary. Teacher scaffolding if necessary. Students can finish at their own pace. | | Teacher led if necessary. Teacher scaffolding if necessary. Students can finish at their own pace. | Teacher led if necessary. Teacher scaffolding if necessary. Students can finish at their own pace. | Teacher scaffolding if necessary. Teacher led if necessary. Students can finish at their own pace. | Teacher led if necessary. Students can finish at their own pace.  Teacher scaffolding if necessary. |
| **Homework** | Finish class assignment | | Page 433 &434 |  |  |  |