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| **Content Standards** | |
| **A-CED Create equations that describe numbers or relationships.**   * A-CED.1 Create equations and inequalities in one variable and use them to solve problems. * A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. * A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non- viable options in a modeling context. * A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.   **A-REI Understand solving equations as a process of reasoning and explain the reasoning.**   * A-REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. | |
| **Technology Standards** | |
| **HS.TT.1 Use technology and other resources for assigned tasks**   * HS.TT.1.1 Use appropriate technology tools and other resources to access information * HS.TT.1.2 Use appropriate technology and other resources to organize information * HS.TT.1.3 Use appropriate technology tools and other resources to design products to share information with others | |
| **Unit Goals** | |
| * Upon completing this unit, the students will understand how to write inequalities and equations with one unknown variable and use it to solve problems. * The students will understand how to graph inequalities with one unknown variable. * The students will be able to combine like terms, isolate the unknown variable, and solve for the unknown in a single-variable equation or inequality. | |
| **Unit Objectives** | **Unit Assessments** |
| * The student will be able to improve their vocabulary knowledge related to linear equations and inequalities and score at least 80% on the vocabulary post-test. | * The students will perform multiple tasks to help them understand the spelling and meaning of ten vocabulary words and then get at least 8 out of 10 questions correct on the post-test. |
| * When given an expression or a word problem, the student will be able to write an equation and solve for the unknown variable with at least 80% proficiency. | * The students will complete problems from three different worksheets in the Direct Instruction lesson by analyzing four word problems and multiple expressions and statements, writing an equation that represents these problems, and solving for the unknown variable. |
| * The student will be able to determine the correct symbol and write an appropriate inequality when given a statement or a word problem and will be able to find at least one example of an inequality outside of school. | * The students will reach 80% proficiency on the in-class and extra practice worksheet assigned in the Concept Attainment lesson and will find an example of an inequality relationship outside of school. |
| * The student will be able to graph an inequality on their own paper and on the SMARTBoard and will be able to solve for the unknown variable using addition, subtraction, multiplication and division with a score of 8/10 or higher on the Inquiry assessment. | * The students will be able to use the SMARTBoard technology to access information and graph inequalities on an interactive number line and by hand. They will also be able to solve for the unknown variable when given an inequality with one variable. |
| * The students will be able to use technology to design a project that requires at least four examples of linear equations with two variables that can be solved by the information given in the problem and will be able to present their project to their peers. | * The students will be able to create at least four problems that can be expressed with an equation with two unknown variables and can then be solved by defining a value for one of those variables. The students must define the variables, solve for the unknown, and be specific when giving an answer. They must also present their findings to their peers using appropriate technological resources. |
| * The students will be able to complete a review activity with all of the information covered in the unit with a partner with 100% proficiency. | * The students will participate in the Cooperative Learning activity and work with a partner to solve review problems. They will navigate around the room and find the answer to each problem, meaning that the students must find the correct answer before moving onto the next question. |