

**UNIT OF STUDY
#1**

Title: solve linear inequalities with one variable	Subject/Course: 10 th Res. Math	Length: 2 weeks
Topic: solve one step and multi step linear inequalities with graphing		Grade: 10 th
Designer: K. Henderson		

UNIT GOALS AND EXPECTATIONS

<p>IMPORTANT CONCEPTS/UNDERSTANDINGS:</p> <ul style="list-style-type: none"> • combine like terms • inverse operations • use of the distributive property • how to determine the least common multiple • inequality symbols • graphing on a number line • order of operations • absolute value 	<p>ESSENTIAL QUESTIONS:</p> <ul style="list-style-type: none"> • What is a linear inequality? • What is the symbol for greater than, less than, greater than or equal to, less than or equal to, not equal to? • How do you graph inequalities on a number line? • How do you test if your answer is correct? • How to use solutions to an equation to solve a related inequality Great!!
<p>STUDENT LEARNING EXPECTATIONS:</p> <p>*SEI.2.AI.4 - Solve and graph simple <i>absolute value equations</i> and <i>inequalities</i> (Ex. $x = 5$, $x \leq 5$, $x > 5$)</p>	<p>Do you motivate x as the distance the number x is from 0 on the number line. This makes absolute value visual and helps explain why x is always greater than or equal to 0 since it is a distance.</p>
<p>SPECIFIC DECLARATIVE KNOWLEDGE – What I know</p> <p>Vocabulary words – inequality, inverse, inequality symbols solution, absolute value</p>	<p>SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do</p> <ul style="list-style-type: none"> • solve one step and multi step linear inequalities using inverse operation (add, subtract, multiply and divide) • graph answers on a number line • check to see if correct side of number line is shaded. • switch symbol when multiply or divide both sides by a negative number.

UNIT ASSESSMENTS

(Include tasks related to Dimensions 3 and 4 and Bloom’s Taxonomy)

<p>open response question</p> <ul style="list-style-type: none"> requiring the student to use multi step inequality (application) 	
<p>Traditional Assessments: independent practice worksheets Test warm-up quizzes or homework quizzes</p>	<p>Other Evidence of Learning: notes guided practice observation marker board review</p>

ACTIVITIES AND LEARNING EXPERIENCES	Resources
<p>1. 4 step vocabulary to introduce key words from the unit.</p> <p>2. Lesson 5.1 and 5.2 solve one step inequalities and graph on a number line * use inverse operation “do the opposite” *review inequality symbols and how to “read” them in a math problem *demonstrate when to use an open or closed circle when graphing *discuss how to test if you have shaded the correct area on a number line (If answer is yes draw a line over it) [This is what you do when you use the solutions to an equation to solve a related inequality]</p> <p>3. Lesson 5.3 - 5.4 – solve multi step inequalities *use the Will Smith song “Switch” to teach changing the symbol with multiplication and division.</p> <p>4. marker board review – group review</p>	<p>4 step worksheet</p> <p>Algebra’s Cool DVD program Unit B</p> <p>Algebra/s Cool DVD program Unit B</p> <p>marker board & eraser</p>
Career Connections	
<p>score keeper, commercial fisherman, car dealer</p>	