UNIT OF STUDY
#4

Title: solve linear inequalities with one variable **Subject/Course**: 9th Res. Math **Length: 2 weeks** **Topic:** solve one step and multi step linear inequalities with graphing **Grade:** 9th **Designer: K. Henderson**	

UNIT GOALS AND EXPECTATIONS

IMPORTANT CONCEPTS/UNDERSTANDINGS:	ESSENTIAL QUESTIONS:
- 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	- 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
STUDENT LEARNING EXPECTATIONS: *SEI.2.AI.4 - Solve and graph simple *absolute value equations* and *inequalities* (Ex. $\|x\| = 5$, $\|x\| \leq 5$, $\|x\| > 5$)	
SPECIFIC DECLARATIVE KNOWLEDGE – What I know Vocabulary words – inequality, inverse, inequality symbols solution, absolute value	**SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do** - 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)

open response question
- requiring the student to use multi step inequality (application)

Traditional Assessments:	Other Evidence of Learning:
independent practice worksheets Test warm-up quizzes or homework quizzes	notes guided practice observation marker board review

ACTIVITIES AND LEARNING EXPERIENCES	Resources
1. 4 step vocabulary to introduce key words from the unit. 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] 3. Lesson 5.3 - 5.5 – solve multi step inequalities *use the Will Smith song "Switch" to teach changing the symbol with multiplication and division. 4. marker board review – group review	4 step worksheet Algebra's Cool DVD program Unit B Algebra/s Cool DVD program Unit B marker board & eraser

Career Connections
score keeper, commercial fisherman, car dealer