Sixth Grade Demo Lesson Plan October 14, 2014

Unit Title: Equations and Inequalities Lesson: Envision Topic 2: Equations and Inequalities. 2-4 Problem Solving: Draw a Picture and Write an Equation.	Approx. time: 30	CCSS-M Standards: **6.EE.B.7** Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q, and x are all nonnegative rational numbers.
A. Focus and Coherence		**B. Evidence of Math Practices**
Students will know: Information in a problem can often by shown using a picture and used to understand and solve the problem. Some problems can be solved by writing and completing a number sentence or equation. **Students will be able to:** draw pictures that represent information given in problems. **Student prior knowledge:** • By drawing a diagram or picture of a problem, students use visual and proportional reasoning skills, to find the solution to problems. • Sometimes a picture can make the solution obvious without much reasoning or computing. **Which math concepts will this lesson lead to?** Write and solve addition and subtraction equations and problems.		Make sense of problems and persevere in solving them. Reasons abstractly and quantitatively. Model with mathematics. Look for and make use of structure. Look for and express regularity in repeated reasoning.

Guiding Questions(s): See below

Formative Assessments Results:
Quick Check Master 4 questions

Anticipated Student Preconceptions/Misconceptions:
Some students had difficulty solving the problems by any method. Some students had difficulty writing an explanation of problem 4 even though they demonstrated the ability to solve the problem. A few students demonstrated mastery of the standard and are ready for a greater challenge.

Materials/Resources
Intervention, On-Level, and Advanced Center Activities
ELL sentence frame support

C. Rigor: Conceptual Understanding, Procedural Skill and Fluency, and Application

<u>Warm-up</u> –No warm-up today

<u>Lesson:</u>
Set the Purpose/Connect:
To reinforce and enrich students ability to solve addition and subtraction problems we will be working in groups today based on the Quick Check results from the previous day.

Differentiated Instruction:
Based on the number card that you were given when you entered the class, follow these instructions:
• Students with the numbers 27 (on-level) and 28 (ELL intervention) assemble into groups of 4 and follow directions on the Center Activity given.
• Students with number 26 (advanced level) form a group and follow directions on the Center Activity given.
• Students with number 25 (math intervention) come to the table to complete the Center Activity given.

Closure:
How can drawing a picture help to understand and solve a problem?
How can writing and completing a number sentence or equation solve a problem?