Lesson Plan by Ashley Vice

Lesson: Estimating Area

Length: 90 minutes

Grade: 5th Grade

Academic Standards:
Mathematics
5.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.

5.7.2 Decide when and how to break a problem into simpler parts.

5.7.9 Note the method of finding the solution and show a conceptual understanding of the method by solving similar problems.

Performance Objectives:
o When given a problem, students will find patterns to solving 3 out of 4 times.
o When given a problem, students will break it down into smaller parts 3 out of 4 times.
o When given a problem, students will tell the method of solving 3 out of 4 times.

Advanced Preparation:
➢ Rulers
➢ Cleared area (parking lot)
➢ Yard Sticks
➢ Measurements of parking lot
➢ Paper
➢ Pencils

Procedure:
Introduction/Motivation:
• Begin by asking student if they how many square inches the room is and then ask them to estimate how many inches it is.
• Tell them that they are going to be estimating how many inches the parking lot is that is outside, but they can’t measure it, because that would take all day, so they have to use problem solving skills to figure it out.

Step-by-Step Plan:
• Start with introduction questions.
• Split class into groups of four.
• Give each group a rule and a yard stick.
• Have students take a piece of paper and a pencil outside.
• Tell students they have 45 minutes to figure out a way that they can figure out the measurement of the area of the parking lot in inches without measuring the whole lot.
• Also have them come up with their solution.
• Give students 45 minutes to do work on problem.

Closure:
• After the students are done, return to classroom and begin discussing ideas on how they got their answer. (They don’t necessarily have to have the right answer, just the way they got it matters.)
• Continue to discuss answers and discuss why each group choose the way they did to figure the problem out
• Suggest different ways of solving it

Adaptations/Enrichment: Students with special needs can be paired with someone who will discuss with them what the group is doing. The student’s partner will make sure he/she is staying with the group and understanding.

Self-Reflection: I will look back at the problem and see if it was too difficult for the students to understand or if they need something different to measure. I will also look to see if the students understood that they needed to use problem solving skills to figure the problem out.