

Name: Sharon Hampton

Grade Level/Subject: 7th Math

Topic: Order of Operations

Objectives (P.A.S.S.): Standard 1 Algebraic Reasoning

2. Use substitution and Order of Operations to simplify and evaluate an algebraic expression (eg if  $x=5$  evaluate  $2x+3$ )

Introduction: Played DVD "Rappin Mathematician" track 11 PEMDAS.

Instructional process: After listening to rap song, we discussed PEMDAS and what every letter stood for and how it is important to know in working problems otherwise more than one possible answer can be obtained. Wrote problem on the board  $9x2+4$  and asked for the answer of course both possibilities were said so then discussed the correct answer in following PEMDAS. Showed DVD Algebra's cool Unit A Operation and Expressions Module 1 Lesson 5 on the SmartBoard screen and students participated interactively by filling-in-the-blanks on the guided notes and guided practice.

Closure: Replayed the "Rappin Mathematician" track 11 PEMDAS to tie-back to the lesson. The students loved the music.

Assessment: I had the students take out a sheet of paper and they worked four problems using order of operations that I had written on the SmartBoard. I walked around the room to have immediate feedback and to evaluate how each individual student's level of understanding the concept was developing. They were given an assignment that would be graded the following day.

Modifications! Accommodations: Students are welcome to come in for help everyday after school because we offer tutorials from 3:00pm to 3:15pm. Several do take the opportunity to come in when needed.

Reflection: Students loved the music! In fact on same tape there is a song called Test Time and that has become a must to play each time we take a test. Had the students write in notebooks the following:

1. What does Please Excuse My Dear Aunt Sally have to do with order of operations? 2. Show an example in which addition is done before multiplication.
  3. How do you know whether to perform addition or subtraction first? What about multiplication or division?
  4. Why is it necessary to have an order of operations?
  5. What are "grouping symbols" and what do they indicate in the order of operations?
- How do you evaluate an expression that has grouping symbols within other grouping symbols?