

**Teachers: James Tyree and Marlene Hedrick**  
**Students: 4<sup>th</sup> Block Algebra I**

## **Instructional Organizer**

### **Gain Attention**

**Bell Ringer: Students will be asked to draw a circle and an ellipse.**

**Ask and Explain: Is the path of a planet around the sun more like a circle or an ellipse? Discuss.**

### **Review**

**Students will take part with teachers in a review of concepts for mean, significant digits, and scientific notation with appropriate examples.**

### **Objective**

**See lesson plan for content standard and objectives for Algebra I and Technology.**

### **Why?/Rationale**

**This lesson will help students to learn to use scientific notation to express really large numbers in a way that is easier to use in calculating.**

### **I&Q Input and Questioning**

**"I do it" (Modeling) Teachers will give direct instruction with examples for vocabulary, review of concepts needed for the lesson, and examples for the lesson itself.**

**"We do it" (Prompted) Students will participate with teachers in completing more examples on the board until understanding is reached.**

**"You do it" (Unprompted) Students will complete calculations for the worksheet.**

**Students will discuss and explain in their own words the concepts, vocabulary words, and calculations they have completed.**

Concepts, Skills, Vocabulary

**Concepts: mean distance, rounding off to 100th's place, calculating and writing in scientific notation.**

**Skills: calculator and computer skills helpful; basic math and Algebra skills necessary.**

**Vocabulary: mean, significant digits, scientific notation.**

Examples/Nonexamples

**See Rubric for appropriate/non-appropriate examples of completed work.**

Rules/Strategies

**Students will work in groups that are pre-planned, but each student will complete a written worksheet for the portfolio.**

Questions

Prompted **How can you express really large numbers in a way that makes them manageable?**

Unprompted **How can you take the numbers express in millions on the computer screen and express them in decimal notation so that you may begin the assignment.**

Guided Practice **Students will complete sample problems related to the lesson concepts using calculators.**

Independent Practice **Students will go to computer, enter data on worksheets, calculate answers, and enter enter answers on worksheet.**

Final Measurement **Students will complete a worksheet for portfolio. Students will discuss in their own words the terms, concepts, and calculations they have completed. A rubric and letter grade will be used to grade portfolios.**