

MathStar Research Lesson Template

Grade Level: 8

Instructor: Jessica Gordon

Class Time: 10:10 11:50

Location:

Harrison Middle School
3912 Isleta Blvd.
Albuquerque, NM 87105
Room E-2

Date: 4-15-03

of Students: 24

Class Type (check one):

Regular SPED Bilingual/ESL Other

Comments:

Harrisons student population is 594. 85% Hispanic, 12% Anglo, 3% Asian, African American, Native American, Free and Reduced Lunch is 93%.

I. Description of Unit:

This lesson will be an intro to building formulas. Students will continue the natural process by learning how to substitute variables, work with concrete verse abstract concepts, and continue algebraic concepts.

A. How does this lesson fit into the unit?

▪ Previously learned concepts

Students will need to know basic operations including addition, subtraction, multiplication, and division as well as reading, writing, and sequence of events. They will need to have some experience with Order of Operations, Distributive Property, grouping, simplifying, solving for unknowns, multiplying decimals, formulas, and variables.

▪ Concepts to be learned in this lesson

Order of operations, combining like terms, and discovering multiple ways to solve problems are just a few of the concepts students will be learning in this lesson. Eighth grade is the grade level that we need our students to begin developing their algebraic thinking.

▪ Concepts to be used in future lessons

For future lessons and extensions, students will formalize the distributive property, arrive at formulas on their own, reinforce the order of operations, and continue to work with combining like terms.

B. Instructional sequence for unit

This unit is being introduced the 4th week of the last 9 weeks. The lesson is a continuum of the algebraic process and will be a springboard for formalizing the distributive property. Students will derive at formulas while working with variables and formulas.

II. Plan of the research lesson

A. Goals of the research lesson:

The goals for this lesson are for students to multiply decimals, combine like terms, correctly label units, substitution with variables, and solve equations.

B. How does the lesson fit into the overarching lesson study goal?

The lesson will fit into the overarching goal by helping them make the leap from concrete to abstract thinking because they are working with things they are familiar with. Hopefully, the lesson will lead students toward mastery of solving variables. We want the students to see why variables are important with real world application. Students will combine like terms and all these things should help to make our students better prepared for high school.

C. Steps of the research lesson: *(See attached table)*

D. Things to prepare/materials:

The things that require preparation are:

- Permission slips for filming
- Transparencies and visa-v pens
- Handouts
- Copies of the student handout
- Large paper to display student findings
- Markers
- Overhead menu