

MathStar Research **Second** Lesson Plan

Grade Level: 6th

Instructor: Bernadette Fernandez

Class Time: 1:30-2:15 pm

Location:

Des Moines Middle School
P O Box 38, 295 Frances Street
Des Moines, NM 88418

Date: 4/29/02

of Students: 13

Class Type (check one):

Regular –Inclusive w SPED Bilingual/ESL Other

Comments: (*Describe social/ cultural context of school*)

Des Moines is a small, rural community with low cultural diversity. There are 140 students K-12, most of whom live and work on ranches.

I. Description of Unit: (*1 to 2 sentences*)

This unit focuses on student-made manipulatives to explore the concept of measurement and equivalent fractions. The students will construct their own homemade ruler to measure to the nearest eighth of an inch. The students will demonstrate the equivalence between whole, halves, quarters and eighths.

A. How does this lesson fit into the unit?

- **Previously learned concepts** (*What concepts are needed to do this lesson?*)
Applications of fractions and equivalent fractions. Ruler measurement. It is important to follow instructions.
- **Concepts to be learned in this lesson**
A half of a half of a half is an eighth. Fractions are not just numbers, they are parts of a whole and are used in real life. It is important to use standard units, and to check and verify work to prove it is right.
- **Concepts to be used in future lessons**
Equivalent Fractions
Applying the measurement process to real life
Dividing by fractions.

B. Instructional sequence for unit (*Where does this unit fit in the curriculum for the year?*)

Third Grade students read Inch by Inch by Leo Leonni to the class the previous day.
Students have worked with ratios, parts of wholes, fractions and comparing fractions.

This is a unifying lesson to integrate across the curriculum and link previously learned content to deepen understanding.

II. Plan of the research lesson

A. Goals of the research lesson: (*What do you want your students to learn in this research lesson?*)

Students will understand equivalent fractions and be able to convert between whole, half, quarters and eighths. Students will use what they have learned about fractions and measurement to make their own rulers. Students will understand the markings on a ruler and be able to measure accurately. Students will be able to write out equivalent fractions in words, as well as numerically.

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

(*Example of overarching lesson study goal: Students will be confident in their ability to learn.*)

Students will be confident in their ability to measure. Students will transfer fraction understanding and be able to apply to measurement.

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

D. Things to prepare/materials:

Licorice, large for measuring table.

Twizzlers to measure with own ruler (3 ½ and 7 ¼ inch).

Extra licorice to eat.

Card stock paper to make rules, labeled with inch markings and tick-marks at every eighth of an inch.

Inch worm laminated manipulatives.

Pencil.

Student reporting forms for each team.

Overhead reporting form for class.