Finlandia University Lesson Plan

Name: LeAnn Larson

Subject: Mathematics

Grade Level: 4

Number of Students: 20

Length: 40 minutes

Pre-Instructional:

Mathematics Section

Patterns, Relationships, and Functions

Content Standard 1: Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Benchmark- Elementary

1. Recognize, describe and extend numerical and geometric patterns.

4. Explore various types of numeric and geometric patterns (repeating, growing, and shrinking).

5. Apply their experiences with patterns to help solve problems and explore new content.

Number Sense and Numeration

Content Standard 3: Students investigate relationships such as equality, inequality, inverses, factor and multiples, and represent and compare very large and very small numbers. (Number Relationships)

Benchmark- Elementary

2. Use part-whole relationships to explore numbers, develop number concepts and understand computation.

Numerical and Algebraic Operations and Analytical Thinking

<u>Content Standard 1:</u> Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems. (Operations and their Properties).

<u>Benchmark- Elementary</u>

1. Use manipulatives to model operations with numbers; develop their own methods of recording operations; and relate their models and recordings to standard symbolic expressions and algorithms.

2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.

<u>Grade Level Content Expectations</u>

<u>Number and Operations-</u>

Multiply and divide whole numbers-

N.FL.04.10- Multiply fluently any whole number by a one – digit number and a three- digit number by a two –digit number; for a two digit by one- digit multiplication use distributive property to develop meaning for the algorithm.

<u>Objectives</u>

1. As a result of this lesson students will understand that there are several methods to use when solving multiplication problems. (Break- apart method, number line, grouping, etc.)

2. As a result of this lesson students will be able to more efficiently do multiplication and gain the correct answer.

3. Students will play the game "Swat It!"

<u>Materials/ Special Arrangements/ Individual Modifications</u>

- Chalkboard/ chalk
- Tape
- 2 Fly Swatters (one for each team)

- Cards or a sheet of paper with multiplication problems on them (teacher use)
- Paper/ Pencil
- Reward (candy for the winners)

During Instruction

1. The teacher will begin the lesson by giving the students their learning goal. To master tools to multiply fluently. (Ask the students if they know the definition of fluently; spoken or expressed effortlessly and correctly). Have the students repeat their learning goal (twice).

The teacher will explain that there are several ways to show and work through a multiplication problem. (Break way method, number line, and grouping.)

The teacher will also explain that multiplication is <u>commutative</u>, which means to change the order of something. (ex: 6 x 7 = 42 and 7 x 6= 42)

2. <u>Developmental Activities</u>

a. The teacher will write a problem on the board and demonstrate how to show the multiplication problem in all three ways. (Do the problem 5 x 7 on the board in all three ways.

b. The teacher will then give the students a problem to show in all three ways. Students may utilize their neighbors if they get stuck. The teacher will walk around while they do this.

c. While the students are working on this task the teacher will write products to multiplication problems spaced out on the board. The teacher will also place a long piece of tape across the floor known as "the line".

d. Once groups are finished the problem will be discussed as a class.

e. The teacher will then explain the activity to the class. They will be playing a game called "Swat It!" The class will be divided into two teams and will stand in two separate lines behind the taped line and in front of the chalkboard. The teacher will explain that team members may not cross the line until a multiplication fact is called out. Once the teacher calls out a multiplication fact only the "it" team members (those holding the fly swatters) may go and hit the answer to the problem. The first one to swat the correct answer gets a point for their team. If the first swatter gets it wrong then the other team gets a chance. If the other team gets it wrong then that round is finished and we begin again.

f. The game will also be changed (using the same rules) except the teacher will say a multiplication problem and the swatters must come up and "show" a method for how they got the answer.

Concluding Lesson

The teacher will congratulate all the students for a job well done and trying their best. The teacher will explain to the students that this was a fun way to practice their multiplication and have fun too.

Follow- Up Activity or Assignment

None

Post-Instructional

Evaluation of Student Learning

Students will be evaluated on their behavior and participation during the lesson and activity.