Lab Framework

Text: AMME Applied Math Made Easy

Unit number and title: Unit 1 Fractions and Measuring

Short Description: Students have to work in small groups to sequence fractions. Students have to figure out the value of each fraction in relation to other fractions.

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Lab Title

Fraction Jump Rope

LAB PLAN

TEACHER: Teacher Prep/Lesson Plan

Lab Objective

Students have to work in small groups to sequence fractions. Students have to figure out the value of each fraction in relation to other fractions.

• Statement of pre-requisite skills needed

Students should have basic knowledge of addition, subtraction, multiplication and division

Students should be familiar with fractions and how to convert to decimals or percents

Vocabulary

Numerator

Denominator

Fraction

Decimal

Conversion

Materials List

1 Jump rope

10 Clothes pins

10 Index cards with various fractions written on them

State Standards addressed

Math:

- 7.2.A Mentally add, subtract, multiply, and divide simple fractions, decimals, and percents.
- 6.6.D Represent a problem situation, describe the process used to solve the problem.
- 1.6. Core Content: Numbers, expressions, and operations.
- 3.8. Core Processes: Reasoning, problem solving, and communication.
- 6.1. Core Content: Multiplication and division of fractions and decimals.

Reading:

2.2. Understand and apply knowledge of text components to comprehend text.

2.3. Expand comprehension by analyzing, interpreting, and synthesizing information and ideas in literary and informational text.

Writing:

3.3: Knows and applies writing conventions appropriate for the grade

Leadership Skills

Students will work in teams. Students will compete with other teams so time management, interpersonal and communication skills will be required. Each student will be expected to participate.

SCAN Skills/Workplace Skills

Problem Solving Skills
Ability to Communicate Well
Ability to Work as Part of a Team

• Set-up information

Set-Up: Approximately 10 Minutes Need approximately 10 feet x 20 feet clear space per group.

Instruction: 10 Minutes Lab Time: 30 Minutes

• Teacher Assessment of student learning (scoring guide, rubric) Students' understanding can be assessed by observing how well and how fast they arrange the number cards in the correct order. See also lab worksheet. Because this activity is group work, it also might be beneficial to give a quiz on place value to assess individual students' grasp of the concepts.

- Summary of learning (to be finished after student completes lab)
 - -discuss real world application of learning from lab
 - -opportunity for students to share/present learning
- Optional activities
- Career Applications –

ability to mentally add, subtract, multiply, and divide simple fractions, decimals, and percents benefits students at school (to advance in math), at home (fractions in cooking and banking) and in business

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LAB TITLE: Fraction Jump Rope STUDENT INSTRUCTIONS:

• Statement of problem addressed by lab

There are 10 fractions (written on index cards) out of order. AS A TEAM - arrange the fractions in order from smallest to largest.

Grouping instructions and roles

Get into groups of 2 to 4.

• Procedures –

Figure out the value of each fraction in relation to the others and clothespin them onto the jump rope in order from smallest to largest.

The first team to place all their fraction cards on the rope in the correct order wins.

Each team member of the winning team jumps rope until they trip. Tally the total number of jumps made by all team members; that number becomes your score for the round.

At the end of three rounds, the team with the most accumulated jumps wins. (That takes some of the pressure off this game as an academic competition. The team that does the best at sequencing numbers might not end up winning the jump-rope tally contest.)

Reflection: Describe the process your team used to solve the problem:	

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