**Authors:** Kimberly Richart and Shannon Witherspoon

**Grade Level:** 5th Grade Math

**Integrated disciplines:** Technology

**Nebraska Standards:** MA 5.1.1.d Recognize and generate equivalent forms of commonly used fractions, decimals, and percent (e.g., one third, one fourth, one half, two thirds, three fourths)

**NETS-S**: 10. Apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems. (4, 6)

**Objectives:** Students will represent and show relationships among positive rational numbers, specifically regarding fractions. Our stated goal is to prepare students to understand parts to a whole and to use those to build upon mathematical concepts.

**Assessment:** There will be a test over the fractions and in order to pass the test students will have to score a 13/20.

**Materials:** -Computers –Puzzles -Fraction circles -Fraction Towers –Worksheet –Pencils -Smart Board

**Anticipatory Set**: Have the students come to class and have them play with the manipulatives before we start using them for class. Let the students play with them and figure out how to use them.

**Learning Activities**

**Teacher: -** Teacher will show the students how to use the manipulatives.

- After students are shown then we will get the worksheet passed out and let the students work on that with their manipulatives.

- After the students are done we will collect the worksheets and then go to the computer lab.

- At the computer lab have the students go to the website and go play the games.

- After the games are over and the student understands then the assessment will be given.

**Students: -**Get used to the manipulatives.

-Work on the worksheet when given

- After worksheet pass in to the teacher

-Line up to go to the computer lab

- Log into the computer and navigate to the website given.

- Go back to the classroom to get ready for the assessment.

**Differentiation**: -Musical- allow for headphones to be worn while working on fraction problems.

-Body Kinesthetic- allow this learner access to manipulatives while on fraction problems.

-Interpersonal- allow these learners to work in a group while working on fraction problems.

-Intrapersonal- allow this learner to work independently while working on fraction problems.

-Verbal/Linguistic- allow group work and/or use of manipulatives while working on fraction problems.

-Logical/Mathematical- allow to do work group

-Naturalistic- allow this learner to explore the concept of where fractions are found in the natural world.

-Spatial- allow the use of manipulative.

**Closure:** Ask the students what was the most difficult part of today? What was your favorite part of the lesson? What would you like to see be done the same/ different next time?

**Suggested Time Frame:** About an hour