

## Fractions and their Applications

**Class:** 6<sup>th</sup>-8<sup>th</sup> grade

**Date:** March 3, 2014

**Topic:** Numbers & Operations – Fractions

**Period:** N/A

**Estimated Time:** 50 minutes

### I. Standards:

- CC.2.1.4.C.2 – Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers
- CC.2.1.5.C.2 – Apply and extend previous understandings of multiplication and division to multiply and divide fractions
- CC.2.3.2.A.2 – Use the understanding of fractions to partition shapes into halves, quarters, and thirds.
- CC.2.4.4.A.2 – Translate information from one type of data display to another.

#### **Goal:**

- Students will be able to compare fractions and develop methods to estimate the values of fractions.

### II. Objectives:

- Students will be able to list fractions on a number line by placing the fractions in order from least to greatest value.
- Students will be able to apply given fractions to an area of a circle or square, by representing the fraction in sections of the shape and coloring in the appropriate portion of the corresponding (circle or square).

### III. Materials/Equipment:

- Computers
- Calculators
- Fraction Finder WS
- Pizza Activity
- Ticket to Go

### IV. Procedures:

### **A. Technology Activity/Exploration:**

- Class will begin with the Fraction Finder Activity; the directions are clear on the Fraction Finder WS. Students will work individually completing several Fraction Finders on their own then they can discuss with the student next to them methods they used and why one shape may be easier to use and why.

### **B. Body/Instructional Plan:**

- The students will be in groups of four but working individually. Each student will have their own computer, worksheet, and scratch paper to complete the activities.
  - ❖ Fraction Finder WS
    - This worksheet is for students to explore each others methods in solving for the middle fraction and compare how each other approximate the fraction values. The pair-share will be done after each student has worked out several problems individually. This part of the lesson should take about 15-20 minutes.
  - ❖ Pizza Activity
    - This activity is based off of the Fraction Finder activity. However after the students have completed the worksheet they will present Pizza A and Pizza C to the class and will write the fractions on a number line. (20-30 min)

### **C. Closure and Extending Activities:**

- As a class we will discuss what we discovered in the worksheets. Partners will also share and explain their pizzas and fraction values to the class. If time allows we will also do a ticket out the door which will include calculating a fraction,  $C$ , that lies between  $C_1$  and  $C_2$ , and then draw the number line from 0 to 1 including the values, A, B,  $C_1$ ,  $C_2$ , and  $C$ . (5-10 min)

### **V. Adaptations:**

- During the Fraction Finder Activity adaptations can be made by using tangible objects if the student has extremely poor vision. During the pizza activity, student roles will be adapted if necessary for student with disabilities. For instance, students with physical disabilities or ESL students may be assigned to read the question and explain the answer or draw the picture, respectively.

### **VI. Evaluation of Students:**

- During each activity, the teacher will circulate to hear what students are discussing in the individual groups. After students are given enough time to complete the last worksheet both “partners” will come up in front of the classroom and do a pair-share with the class,

presenting their pizza. Students will have the option to write on the document camera or they can draw and explain their picture on the board.

**References:**

<http://www.shodor.org/interactivate/activities/FractionFinder/>

**6/78**

**15/36**