**Scholar’s Fraction Snack Mix**

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| **Teacher: Mrs. Moore, Ms. Harty, Ms. Phillips** |
| **Date: 4/28/16** |
| **Subject / grade level: 5th Grade Math** |
| **Materials:**    1) Cheerios  2) Pretzels  3) Goldfish  4) Marshmallows  5) ¼, ½, 1/3, measuring cups (one for each group of four students)  6) Small plastic baggies  7) One bowl per group  8) Student worksheet |
| **TEKS:**  5 (3) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to:  (K) add and subtract positive rational numbers fluently. |
| **ENGAGEMENT (10 minutes)**    1) Tell students that they are going to watch a short video, “Sharing gold bars.” They are to ask themselves how they compare and order fractions that have different denominators.  2) After showing the video, write the fraction 5/8. Ask the students based on the movie, what that would mean. What does the denominator (bottom number) tell you? What does the numerator (top number tell you)? |
| **EXPLORATION/EXPLANATION (30 minutes)**  1) Ask the students other than ‘sharing gold bars,’ why would we need to learn about fractions?  2) One reason is we use fractions in cooking. Why do we use fractions in cooking?  3) Pass out student worksheet.  4) Tell the students that they will have **seven minutes** to do steps one and two. Set a timer. Allow them to work in groups.  5) When the timer goes off, have students share how they figured out which ingredient they had the least of? The most of? If students say that they could tell by looking, challenge them to prove their answer mathematically. Students need to understand that before they can compare/order fractions, they needed to be divided into equal parts. (Parts of 12) “What are the equal parts we can make each of these fractions?”  6) Ask students, “What is the smallest amount of parts that I can divide ¼, ⅔, ½ into to make equivalent fractions? Guide them in writing the equivalent fractions for each ingredient.  7) Tell the students that they will have **seven minutes** to do steps three and four.Set a timer. Allow them to work in groups.  8) Use the picture of the cups to show them how much mix they are making in all. They will end up with 26/12 which can be reduced to 2 and 1/6. Ask them what operation they are doing in each step THREE (adding) FOUR (subtracting). Many students still think of subtraction as ‘take away,’ but often, we use subtraction when we are comparing. |
| **ELABORATION (15 minutes)**  9) Read STEP FIVE. Ask students why you would want to double the recipe? Allow another 7 minutes for this step.  10) Have students share their answers. Ask them how they figured out the total amount of mix in the doubled recipe. Ask students, “What operation are you doing in step five?”  11) Go immediately to STEP SIX. Have students think about and write their ideas on their own before sharing with their group. Ask students, “What operation are you doing in step six?”  12) Ask students to share their suggestions aloud. Students need to complete the formal algorithm to solve the problem. |
| **EVALUATION (10 minutes)**  **1)** Have students actually divide the mix so that each person gets an equal amount in their baggie (approximately).  \*14) If time permits, you can address the **CHALLENGE.** |