

Making Trail Mix Using Fractions

Lesson Summary

Students will make trail mix using a recipe. The students will double the recipe and cut it in half.

Major Topic and SOL

Math SOL (2009) 6.6, 6.9

Length of Unit

45 minutes

Student Objectives

In Mathematics students will be able to:

- multiply the ingredients by two
- divide the ingredients by two
- make the connection that they could have doubled the ingredients by adding instead of multiplying by two
- use measuring cups to measure and add the ingredients together to make the trail mix

In Language students will be able to:

- use key vocabulary to describe how to multiply, divide, and add, fractions.
- discuss measurement
- discuss how to make the trail mix in small groups
- show how they solved the problems in writing

21st Century Skills

- Critical-thinking and Problem Solving
- Communication
- Creativity and Innovation
- Collaboration

Assessment Evidence

- The teacher will take up the papers to make sure each student doubled and cut the recipe in half
- The teacher will observe the groups to make sure they were working together in making the trail mix
- We compared the original recipe, the doubled recipe, and the recipe that was cut in half to see the differences

Supplies/Materials/Technology

- **Teacher Materials:**
 - Computer
 - LCD

- Recipe for Trail Mix
- **Student Materials:**
 - Papers
 - Pencils
 - Bowls
 - Spoons
 - Measuring cups
 - Zip lock bags
 - Peanuts
 - Raisins
 - M&Ms
 - Gold fish crackers
 - Honey Nut cheerios
 - Butterscotch Chips
 - Paper Towel
 - Hand Sanitizer

Lesson Plan

Motivation & Building Background:

- **Background:**
 - The students have studied adding, subtracting, multiplying and dividing fractions. They have also studied measurement in the customary system.
- **Motivation:**
 - Students will get to make and eat their trail mix while working with fractions and measurement

Presentation:

- The teacher will place the recipe for trail mix on the LCD projector and explain to the students that one group will use the original recipe to make the trail mix, another group will use the double recipe, and the last group will use the recipe that has been divided in half.
- The teacher will then ask the students what we should do if there were more people coming to our party and we needed to double the recipe. Then the teacher will ask the students what the students what we should do if we only needed to make half of the recipe.
- The teacher will then explain to the students that I want them to double the recipe and divide the recipe in half using paper and pencil.
- The students will then be allowed to make the trail mix

Practice/Application:

- Students will be placed in groups of four, try to have weaker students placed with students that can guide them through the activity.
- Distribute the materials needed for the activity.

- The students will use the recipe on the overhead. First they will double the recipe and write their answers down. They will then divide the ingredients in the recipe and write their answers.
- We will review the answers as a class.
- One group will make the original recipe, then another group will make the doubled recipe, and the last group will make the recipe that was divided in half.
- We will then discuss why it is important to be able to add, subtract, multiply, and divide fractions in everyday life. We will also discuss the importance of being able to use measurement tools.
- We will then divide the trail mix equally among all the students.