

Fraction Salad

Grade Level: 5th

Title of Lesson: Fraction Salad

Performance Standard(s) Covered:

MCC5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

Essential Question: How do we add and subtract fractions?

Objective: Students will be able to add and subtract fractions to 100% accuracy.

Key Words and Terms:

- Fractions
- Numerator
- Denominator
- Serving size

Learning Activity

Abstract: Students will measure out different amounts of fruits and vegetables and add them together, creating a salad.

Materials Needed:

- Measuring cups (one per group of students)
- An assortment of fruit and vegetables (enough for each group to measure a serving size, anything will do)
 - Carrots
 - Apples
 - Lettuce
 - Celery
 - Tomatoes
 - Cabbage
 - Spinach
 - Radishes
- Large bowls (one per fruit per pair)
- Salad recipe (one per group)
- Wooden spoons or salad tongs (one per pair)
- Small bowls (one per student)
- Forks (one per student)

- Ranch dressing (one large bottle should be enough for the class)
- One knife per group (sharp enough to chop)
- One cutting board per group
- Paper towels
- Access to a sink to wash produce and hands
- Hand soap
- Serving size chart (see chart at end of lesson)

Safety Concerns:

- Be aware of any food allergies among students.
- Make sure students wash their produce and their hands before prepping and consuming it.
- Give students proper instruction on how to use knives to slice vegetables.

Procedure:

1. Divide students into groups (about 3 or 4).
2. Teach them proper sanitation techniques and knife handling skills.
3. Give each group a salad recipe to follow (see end of activity).
4. Using the cutting board and knives, have students slice and measure out predetermined amounts for each produce selected
5. Once each amount is measured out, have students record their observations and compare and contrast the measurements.
6. After they have observed, combine all produce into the large bowl and form a salad.
7. Toss with spoons to mix together.
8. Measure out 1 ½ cup of salad for each student, allow them to have ranch if they would like. Enjoy!
9. After they have eaten, have students answer the following questions –
 - a. What is a serving size equal to for each produce used?
 - b. Why are fractions important?
 - c. Which measured amount is the greatest? The least?
 - i. Plot the fractions on a number line.
 - d. How many total cups of carrots and apples did you have? How many serving sizes does that equal?
 - e. Convert each measured amount into fractions with equal denominators.
 - f. How many spinach leaves does it take to equal a serving size? How many apples? Why is there a difference in number of produce?
 - g. How many cups of carrots did each group member receive in their salad?
 - h. If you had $\frac{3}{5}$ cups of carrots and ate $\frac{3}{8}$ how many do you have left?
 - i. How many serving of fruits and vegetables should you consume a day?
 - j. If you have $1\frac{3}{4}$ cup of radishes, how many servings is that? If you eat half a cup how many do you have left?
 - k. If you have $\frac{1}{8}$ cup of carrots how many more do you need to make $\frac{1}{2}$ a cup? How many servings is $\frac{1}{8}$ cup?
 - l. How many serving sizes did you measure out in total? How many cups?

Salad Recipe

Chop and measure out each amount of produce and record your observations. Once instructed, combine all the ingredients together and toss to mix. Enjoy!

- $\frac{3}{5}$ cup of carrot slices
- $\frac{1}{3}$ cup of apple cubes
- $1\frac{6}{8}$ cups of lettuce
- $\frac{2}{3}$ cup of celery slices
- $\frac{5}{4}$ cups of tomato slices
- $\frac{1}{8}$ cup of cabbage slivers
- $\frac{8}{5}$ cups of spinach
- $\frac{3}{2}$ cups of radishes

