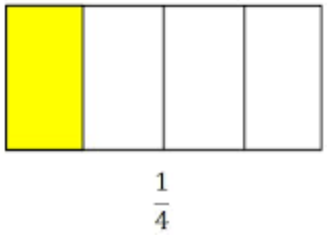
Topics: Comparing Fractions; Fractions as Division; Multiplying Fractions
Standards: NF.3; NF.4

Monday, April 6

- A unit fraction is a fraction which has a one in the numerator (top number). Using measuring cups or spoons, investigate how many unit fractions it takes to fill a cup. For instance, how many ⅓ cups of flour does it take to fill a 1 cup measuring cup to the rim without overflowing? Compare the sizes of different cups. Think about why it takes more ¼ cups to fill the cup than ⅓ cups. Record your thoughts or discuss with a parent or family member.
- Explain why when the denominator (bottom number) of a unit fraction is larger it is actually a smaller fraction. For instance, why is ¼ a smaller fraction than ⅓? Explain your reasoning using what you noticed when you filled a cup. Type your response on Google Classroom.

Tuesday, April 7

- In yesterday's investigation, you should have noticed that when the denominator of the unit fraction is larger it takes more to fill the one cup measuring cup. This is because the pieces are broken into smaller units. Think about the fraction symbol and how it may be typed on a computer. Then think back to the division unit. How do we type a division symbol on the computer since there is no key with the ÷ symbol? In both cases, we use the slash mark (/). This means that fractions are the same as division. The numerator (top number) is being divided by the denominator (bottom number).
- Watch the Math Antics video on Fractions as Division: https://www.youtube.com/watch?v=3xwDryouw6o
- When you divide the numerator by the denominator, think about the image that you make: ¼ is the same as 1 ÷ 4 or one whole broken into 4 equal pieces. Draw a model showing ¼ or one whole broken into 4 equal pieces. Does your model look like this?



$\frac{1}{4}$

- Watch the Understanding Fractions as Division: Math with Mr. J video: https://www.youtube.com/watch?v=DIlLO3xgGKY
- Complete the multiple choice quick check on Google Classroom over Fractions as Division.

Wednesday, April 8

- Sometimes when you are making recipes or baking, you have to double, triple, or find half of recipes. How does this work if some of your measurements are in fractional values?
- Use measuring cups to investigate ways that you can write fractions when they are doubled, tripled, or cut in half. For instance, try the following situations:
    - What is double ⅓? Is there a different measuring cup that will give you the same amount as two ⅓ cups?

    - What is triple ¼? Is there a different measuring cup that will give you the same amount as three ¼ cups?
    - What is half of ½? Is there a different measuring cup that you can use two of to completely fill a ½ measuring cup?
- Investigate these examples and others. Record your results. Look at the fractions and think about how the numbers are related. How do you get from one fraction to the other when you double, triple, or half a recipe.

Thursday, April 9

- Think about your investigation yesterday. Was there another measuring cup that used the exact amount as three ¼ cups? ¾ of a cup is the same amount as three ¼ cups. What you were doing was multiplying the whole number 3 times ¼ of a cup.
- To multiplying a whole number times a fraction, follow these steps:
    a. Write the multiplication problem: 3 x ¼
    b. Rewrite the whole number as a fraction. Since 3 is the same as 3 ÷ 1, it can be written as $^{3}/_{1}$.
    c. Rewrite the multiplication problem: $^{3}/_{1}$ x ¼
    d. Multiply the numerators: 3 x 1 = 3
    e. Multiply the denominators 1 x 4 = 4
    f. Write your product: ¾
- Watch the video on multiplying whole numbers by fractions: https://www.youtube.com/watch?v=B8LVDxQB_LQ
- Complete the multiple choice quick check on Google Classroom over Multiplying Fractions by Whole Numbers.

Friday, April 10 - Monday, April 13: Spring/Easter Break

- Find a recipe that you want to make with your family. Make sure that the recipe has at least 3 fraction amounts.

Tuesday, April 14

- Think about your investigation last week. Was there another measuring cup that you could use two times to equal exactly ½? If you take two ¼ measuring cups of flour it will completely fill one ½ cup. This is the same as multiplying the fraction half by ½, or ½ x ½.
- To multiplying a fraction times a fraction, follow these steps:
    - Write the multiplication problem: ½ x ¼
    - Multiply the numerators: 1 x 1 = 1
    - Multiply the denominators 2 x 4 = 8
    - Write your product: ⅛
- Watch the video on multiplying fractions by fractions: https://www.youtube.com/watch?v=H3ZY65icKmw
- Complete the multiple choice quick check on Google Classroom over Multiplying Fractions by Fractions.

Wednesday, April 15

- Open the Google Document shared with you on Google Classroom. Add your family recipe that has at least 3 fractions. Add a picture of the recipe and all the instructions.
- Look at Mrs. Scheel's lasagna recipe for an example.

Thursday, April 16

- On the Google Document from yesterday, add new measurements if you were to triple your recipe. Try to write each measurement in simplest form. This means instead of writing 3/6, you would divide the numerator and denominator by 3 and get ½.
- Make sure to show your work.
- Look at Mrs. Scheel's lasagna recipe for an example.

Friday, April 17

- On the Google Document from yesterday, add new measurements if you were to half your recipe. Try to write each measurement in simplest form. This means instead of writing 3/6, you would divide the numerator and denominator by 3 and get ½.
- Make sure to show your work.
- Look at Mrs. Scheel's lasagna recipe for an example.