

Title: Adding Fractions	Grade: 5th Grade
Content: Math	Duration: 15-20 minutes daily

Standard:

- **5.NF.1:** Add and subtract fractions with unlike denominators.

Objective: Students will model with real life objects to add fractions.

Materials:

- Rectangular object
- Scissors

Introduction Description:

Students can explore fractions with almost objects that are easily found around the home. Fractions can be found when cooking, in recipes, and within many jobs around the world. This activity will allow students to explore the explanation behind why and how we add fractions that have unlike denominators.

$$\frac{1}{2} + \frac{1}{3} = ?$$

Steps:

- Students will need to gather two identical rectangular items (Granola bars, candy bars, crackers, paper rectangle)



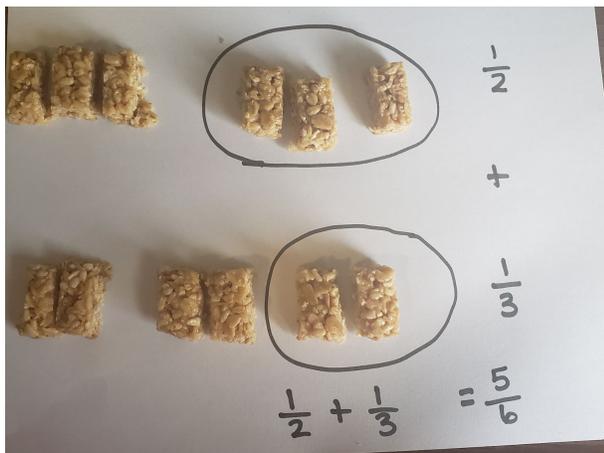
- Divide the first rectangle into halves to represent $\frac{1}{2}$.
- Divide the second rectangle into thirds to represent $\frac{1}{3}$.
- Students will be unable to add the fractions because the fraction size is not the same.

- How can we make each of the rectangles have the same pieces?

- Divide each of the $\frac{1}{3}$ pieces into half to create six pieces.



- How can the $\frac{1}{2}$ rectangle make 6 pieces?
- Divide each of the $\frac{1}{2}$ pieces into three pieces to create six pieces.
- Now that they are in common pieces we are able to add.
- $\frac{1}{2}$ of the rectangle comes to three $\frac{1}{6}$ pieces or $\frac{3}{6}$.
- $\frac{1}{3}$ of the rectangle comes to two $\frac{1}{6}$ pieces or $\frac{2}{6}$.
- $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$



- Write down what you did to complete this problem.
 - Example: *In order to add the fractions $\frac{1}{2}$ and $\frac{1}{3}$ I needed to make their fraction sizes the same. I divided the $\frac{1}{3}$ pieces into half to make 6 pieces or $\frac{1}{6}$ sizes. Then I noticed if I divided each $\frac{1}{2}$ piece into thirds, I would have 6 pieces or $\frac{1}{6}$ sizes. To find the answer I added $\frac{3}{6}$ to $\frac{2}{6}$. When I finished adding I had the answer $\frac{5}{6}$.*
- Each day find a rectangle or circular object and try to add fractions using this method. Explore with different fractions.

Adaptations:

- Precut the object into the sizes.
- Draw pictures to allow students to experiment with making the pieces the same sizes.
- Use paper instead of food.
- Use the rectangle provided below.
- Try with smaller fractions such as $\frac{1}{7}$, $\frac{1}{8}$, $\frac{1}{9}$, or $\frac{1}{10}$.
- Try using mixed numbers such as 2 and $\frac{1}{2}$.

Finished Product: An explanation of a fraction addition problem each day.

