"How Much Did We Eat?"

Objective:
By the end of the activity, the students will be able to:
- Add fractions with unlike denominators.

Materials:
- Equal length slips of paper (used as a fraction bar)
- Color pencils (2 per student)
- Black marker

Teacher Preparation:
- Place students into groups of 2-4.

Introduction:
Jason and Kelly went to a basketball game and ordered a whole pizza pie. Jason ate ½ of the pizza. Kelly was not as hungry and only ate ⅛ of the pizza pie. How much of the pizza was eaten?
- Talk about how the pizza would look. Discuss by showing a pizza pie cut into 2 slices versus eight slices.

Activity:
1. Have the students take one slip of paper and label it Jason. Then, have the students fold the paper in half. Since Jason ate half of the pizza, have the students lightly color a half to represent that amount.
2. Have the students take another slip of paper and label it Kelly. Since Kelly ate ⅛, have the students continue to fold the paper in half until 8 equal parts are made. Then, the students will need to use the additional color pencil to shade 1 of the 8 parts to show how much Kelly ate.
3. Explain to the students that in order to tell how much pizza Jason and Kelly ate in all, you will need to find a common multiple of 2 and 8. Have the students work to show how you could find a common multiple of the two denominators.

South Carolina College- and Career-Ready Standards for Mathematics:
5.NSF.2 Solve real-world problems involving addition and subtraction of fractions with unlike denominators.

4. Once you have found the common multiple of 8, have the students fold Jason's slip until it shows the 8 equal parts. Have the students count and number each shaded part of Jason and Kelly's slips.
   - How many of Jason's 8 parts are shaded?
5. Finally the students will need to count the number of ⅛ shaded parts on both slips. Have the students realized there are 5 shaded parts in all, making the amount of pizza eaten ⅝.

Question(s):
- If Kelly ate ⅛ of the pizza, how many boxes should be shaded?
- How could I have found the common denominator? Is there another way?
- How many eighths of the pizza did Jason eat? Kelly? In all?

Activity (continued):
- Have the students complete the same activity with a different problem.
  - Example: During the basketball game, Cory made ¾ of the free throw attempts last night. Gavin made ⅙ of the free throws attempted night. How many of the free throw attempts were made during last night's game?

Extensions:
- The students can create their own fraction word problems to give to another group to solve.
- Each group can be given a different word problem to solve and display for their peers.

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