

# Fraction Fusion Pizza Party

## Materials Needed:

- 2-3 sheets of paper (or paper plates) to be the "pizza dough"
- Scissors
- Ruler
- Markers or colored pencils in various colors (for "toppings")
- Pencil
- A timer (optional, to keep the lesson within 20 minutes)

## Lesson Plan (20 Minutes)

### 1. Learning Objectives (What You'll Be Able to Do)

By the end of this 20-minute lesson, the student will be able to:

- Visually represent and add fractions with different denominators (e.g.,  $\frac{1}{2} + \frac{1}{4}$ ).
- Explain why a "common denominator" (cutting the pizza into same-sized slices) is necessary to combine fractions.
- Apply fraction addition to a creative, hands-on project.

### 2. Curriculum Alignment

- **Focus Standard (e.g., CCSS.MATH.CONTENT.5.NF.A.1):** Add and subtract fractions with unlike denominators by replacing given fractions with equivalent fractions to produce an equivalent sum.

### 3. Introduction & Warm-Up (3 minutes)

**Teacher/Parent prompt:** "Imagine we're opening a pizza parlor, but our customers have very specific, fractional orders. Today's challenge is to create a single pizza for a customer who wants  **$\frac{1}{2}$  pepperoni** and  **$\frac{1}{3}$  mushrooms**. Before we start, let's think: Can we just add the bottom numbers? Why or why not?"

- Listen to the student's initial thoughts. Guide them to realize the "pieces" (denominators) are different sizes, making them hard to combine directly. This sets the stage for the activity.

### 4. Main Activity: Creating the Fraction Pizza (12 minutes)

#### Instructions for the student:

1. **Create the Pizzas:** Take two pieces of paper and draw a large circle on each. Cut them out. These are your two starting pizzas.
2. **Make the First Topping ( $\frac{1}{2}$  Pepperoni):**
  - Take the first pizza circle. Fold it exactly in half.
  - Unfold it and trace the line. You now have two  $\frac{1}{2}$  pieces.
  - Choose a color for pepperoni (e.g., red) and color in one of the  $\frac{1}{2}$  sections. Label it " $\frac{1}{2}$  Pepperoni".
3. **Make the Second Topping ( $\frac{1}{3}$  Mushrooms):**
  - Take the second pizza circle. This is trickier! To make thirds, you can draw a 'Y' shape from the center. Use a ruler to help make the sections as equal as possible.
  - Choose a color for mushrooms (e.g., brown) and color in one of the  $\frac{1}{3}$  sections. Label it

"1/3 Mushrooms".

#### 4. The Fusion Challenge:

- **Teacher/Parent prompt:** "Now, how can we put these toppings onto ONE pizza to show the total? Look at your 1/2 pizza and your 1/3 pizza. The slices are different sizes. How can we re-slice BOTH pizzas so they have the same number of equal-sized slices?"
- Guide the student to discover the common denominator. They can do this by overlaying the fold lines.
  - Take the 1/2 pizza and draw the 'thirds' lines on it.
  - Take the 1/3 pizza and draw the 'half' line on it.
  - **Ask:** "How many total slices does each pizza have now?" (They should both have 6 slices).

#### 5. Create the Final Pizza:

- On a new, final paper circle, draw lines to create 6 equal slices (the common denominator).
- Ask: "How many sixths were pepperoni?" (Look at the first pizza: 1/2 is the same as 3/6). Color 3 slices red.
- Ask: "How many sixths were mushrooms?" (Look at the second pizza: 1/3 is the same as 2/6). Color 2 slices brown.

### 5. Discussion & Assessment (5 minutes)

Look at the final pizza together.

- **Formative Questions (Check for understanding):**
  - "So, what is  $1/2 + 1/3$ ?" (The student can count the colored slices: 5/6).
  - "Why did we have to change both fractions to sixths?" (Because the slices needed to be the same size to add them up).
  - "What fraction of the pizza is still plain cheese?" (1/6).
- **Final Product Assessment:** The completed "Fusion Pizza" serves as the tangible evidence of understanding. The student should be able to explain that they combined 3/6 (pepperoni) and 2/6 (mushrooms) to make a pizza that is 5/6 covered in toppings.

### 6. Differentiation & Extension

- **For Extra Support:** Use fractions with easier common denominators, like 1/2 and 1/4. The 1/2 pizza can be folded twice to easily show it's also 2/4.
- **For an Advanced Challenge:** Ask the student to create a pizza with three toppings (e.g.,  $1/2 + 1/4 + 1/8$ ). Or, ask them to fulfill an order for 1 and 1/4 pizzas, introducing mixed numbers.