

Pizza Swap

For student motivation, dress up as a pizza maker would with chef's hat, moustache, and apron. Either have a real ball of pizza or make believe to have one and throw it up in the air and catch it. Tell students that the first pizza in the United States was made in 1905. Ask them if they know any facts about pizza. Add that today they are going to make their own pizzas out of paper and put on the toppings they like.

Distribute precut paper circles and assorted "toppings". The pizza circles should have lines drawn on the back so pizza can be cut into fourths, sixths, eighths, or twelfths. Have students decorate their own pizzas. Also distribute brown circle that will be used for their pizza pan.

When students have finished making their pizza, put one fraction sign on each table. The fraction sign should match the pizza you gave the group. Fraction signs could be: Fourths, Sixths, Eighths, Twelfths. Explain that they will be cutting up their pizzas into that many pieces. Have students label each slice of pizza.

Once the groups of students have cut up their pizzas into the fractional pieces indicated, tell them it is time for "**The Great Pizza Swap.**" (This activity will be noisy so be prepared for that.) Tell students during the swap they are to trade equal amounts of pizza, even though the pizzas are cut out differently, so that when the bell rings to indicate that the swap is over, they each end up with a full pizza, no more or less that will fit onto their pizza pan (brown circles). Answer any questions that may arise. Say, "on your mark get set GO!" Allow 2 or 3 minutes (adjust to your grade and comfort level) and then ring a bell or yell loudly, "STOP!" Students must sit down with what they have on their pizza pan.

Have students share whether or not they ended up with a whole pizza. Ask questions such as, "How did you make sure you did end up with a whole pizza?" "Give an example of a trade you made." "If you did not end up with a whole pizza, what happened?" "What would you do next time?" (You may wish to do the swap more than once to allow students to try out different strategies.)

After discussion of the swap, have students take out their math journals and make an entry about the activity. Things they can address include:

- a description of what they did
- what strategies did and did not work
- what they would do differently next time
- how their knowledge of fractions helped them during the swap
- an equation in writing showing what fractional pieces they now have on their pizza
- Finally have students glue and label their pizza into their journal