

## Party Mix = Math + Food Science

Children will become food scientists as they prepare their own party mix. Transform them into mathematicians to assess their treat while exploring measurement, graphing, fractions and/or probability. Then whisk them back to the food lab to sample and analyze their treat.

### You will need:

Two or more types of cereal (Cheerios; Corn Pops; Corn Bran; Mini Wheats)  
One or more salty treats (pretzels; popcorn)  
One or more sweet treats (chocolate chips; mini marshmallows; Smarties; dried cranberries; raisins)  
2 bowls  
A variety of measuring cups  
Paper plates

### What to do:

1. Divide children into groups of four to prepare their treat. Their treat will contain 2 types of cereal, one salty treat and one sweet treat. If you have a selection of starting materials, they can begin by choosing their ingredients.
2. Have children count out 100 pieces of one of the four ingredients onto a paper plate. Give them a variety of plastic measuring cups and have them estimate the volume of their ingredient (1/2 cup? 1 cup? 2 cups?)
3. Have children measure each ingredient into a large bowl to combine them. How close was their measurement to their estimate?
4. Have kids estimate the total volume of party mix by calculating the sum of the volumes of each ingredient. They can then measure the total volume by transferring the party mix from one bowl to the other using the measuring cups. How does the actual volume compare to their estimate?
5. By the time they are done, they will have a yummy mechanical mixture of four ingredients.
6. Have kids calculate how much each child will get if they were to divide the mix equally among their group members. Then have them measure the mixture onto 4 paper plates, dividing it equally.
7. There are still lots of fun math activities you can do. Here are some examples:
  - a. Have kids count the number of pieces in their own portion. What fraction of their mixture is cereal, salty or sweet treat?
  - b. Have children calculate the % composition of their trail mix. For example: what percentage of pretzels do they have in their mix?
  - c. Have them prepare a bar graph to illustrate the number of each ingredient they have in their portion. d. Have them calculate the probability of picking out a pretzel or piece of cereal.
8. Math and science are always fun when you get to eat the results! As Food Scientists, have them sample their trail mix and analyze the texture and taste. If they made it again, would they adjust any of their ingredients?

