PIZZA PARTS

GRADE LEVEL: 2-3 **SUBJECT:** Mathematics

NATIONAL STANDARD(S): **THEME:** Food

(K-2) MA: 2.1, 2.5, 3.2, 4.6
(3-5) MA: 2.2, 3.6, 3.10, 3.12, 4.1, 4.7, 4.11, 4.14, 9.1-2

FOOD AND FIBER TOPIC: V-A,B,C

LEARNER OBJECTIVES:

Students will measure the ingredients to make pizza dough and determine basic fractions to cut pizza.

VOCABULARY

***ingredients*—**All the things that go into making something.

BACKGROUND

All the things that go into making a pizza are called "ingredients." When you buy pizza in the store, the ingredients are listed on the package. Flour is first on the list, since there is more flour in pizza than anything else. What crop is used to make flour? The other ingredients on the list include water, yeast and salt. The ingredients are listed according to how much of that ingredient is in the package. The ingredient with the largest amount is listed first and the ingredient with the smallest amount is listed last.

STEP-BY-STEP INSTRUCTIONS

1. Arrange ahead of time for the school cafeteria workers to cook the pizza you and your class will prepare. Bring the following ingredients to class, or send a list home with students and ask parents to provide them:
   2 envelopes dry yeast 2 cups warm water
   2 tablespoons sugar 1/4 cup oil
   1 tablespoon salt 5-6 cups flour
   toppings, as desired (grated mozzarella cheese, tomato paste, chopped bell peppers, chopped olives, sliced mushrooms, pepperoni, summer squash, etc.) Measure the amount of each topping added to the pizza.
2. Discuss where the different ingredients come from as you follow the instructions below to put the pizza together (flour from wheat, yeast from fungi, salt from salt mines or the ocean, cheese from dairy cows, tomato sauce from tomatoes, pepperoni from beef cattle, sausage from pigs, olives from olive trees, pepper from pepper plant, mushrooms from fungi):
3. Dissolve the yeast in warm water. Add sugar, oil and salt. Mix well. Beat in enough flour to form a dough. Knead on floured surface for two to three minutes. Roll into two circles. Place in greased pizza pans. Top with tomato paste and favorite toppings. Let students decide how the pizza should go together. Bake at 400 degrees for 20 to 25 minutes.

4. Do simple fractions as you divide the pizzas and pass out slices to students. Eat the pizza.

RELATED ACTIVITIES

1. Have students, as a group, write about the experience of cooking pizza is related to math.
2. Help students think of other ways that mathematics relates to their daily lives.
3. Apply the USDA Food Pyramid to pizza and use mathematics to determine what portions of the recommended daily nutrients the pizza provides.

RESOURCES

Student Books

Barbour, K. (1987) Little Nino's Pizzeria. Harper & Row.

Fischer, R. (1988) Pizza. Watts.

Gibson, R., (1991). Kitchen Fun. EDC Publishing.

Khalasa, D. (1989). How Pizza Came to Queens. Crown.

Kovalski, M. (1989). Pizza For Breakfast. Morrow, Jr.

Major, B. (1978). The Magic Pizza. Prentice-Hall.

Marzollo, J. (1989). The Pizza Pie Slugger. Random House.

McDowell, J. & McDowll, D. (1988). Pizza For Everyone. Cook.

Rey, M. (1985). Curious George and the Pizza. Houghton Mifflin.

Tyler, J. and Stitt, S. (1989). Mealtime Words. EDC Publishing.

Teacher Resources

The Source—Pizza Poster. (1990) Grade level: 1-3, 4-6. Format: 4-color 34.5 X 24 inch poster depicting ingredients of "exploded pizza". Intent is for students to identify the source of each ingredient in a pizza. Price: $2.50 + S/H. Order from: New York Ag in the Classroom, Cornell University, 408 Kennedy Hall, Ithaca, NY 14853.

Exploring Yeast from Budding to Baking. A multi-disciplinary educational tool including a cookbook, some copy masters, projects and an experiment card. (Once copy available free of charge). Red Star Yeast & Products, Consumer Service Department, 423 E. Michigan St., Milwaukee, WI 53202.

Pillar, M. (1990). Pizza Man. Crowell. (Black and white photos highlight the steps in making a pizza pie, from the moment the pizza man starts making the dough until a slice is served to a hungry customer).

Related Internet Websites

(see Food & Fiber Systems Website)

EVALUATION

Did the activity help students apply mathematics to their daily lives? Did students gain an understanding of the importance of units of measurement and of fractions to daily living?

ACKNOWLEDGMENT

This lesson was adapted from Oklahoma Ag in the Classroom, Department of Agricultural Education, Communications and 4-H Youth Development, Oklahoma State University, Stillwater, OK 74078.