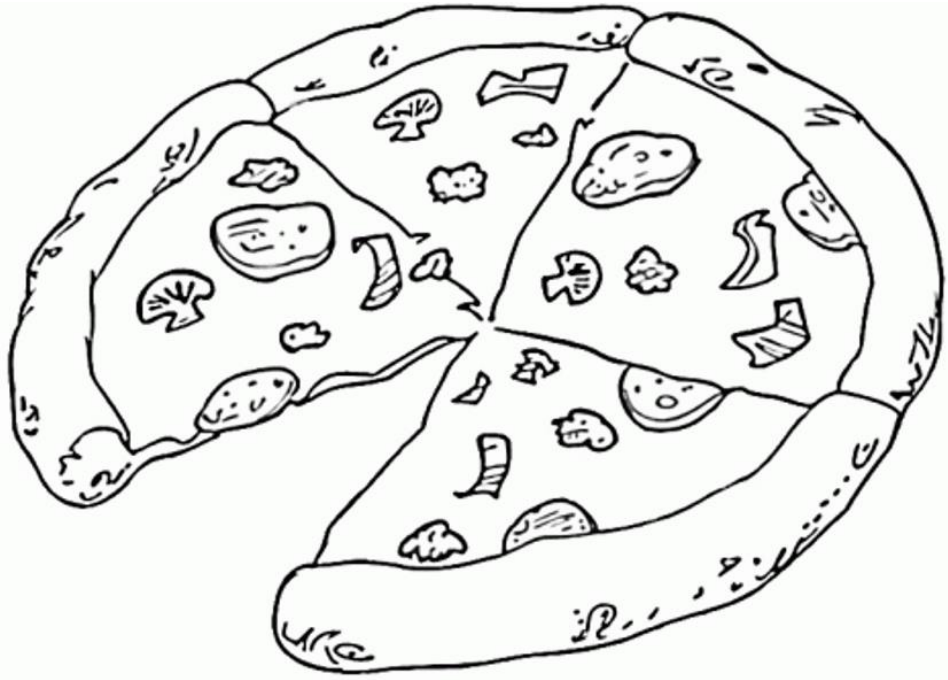
Pizza!

4-H@Home Activity Book



http://www.supercoloring.com/coloring-pages/tasty-pizza-from-italy?version=print

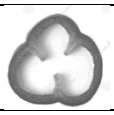
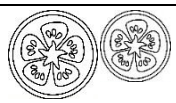
Name:_____Age:____

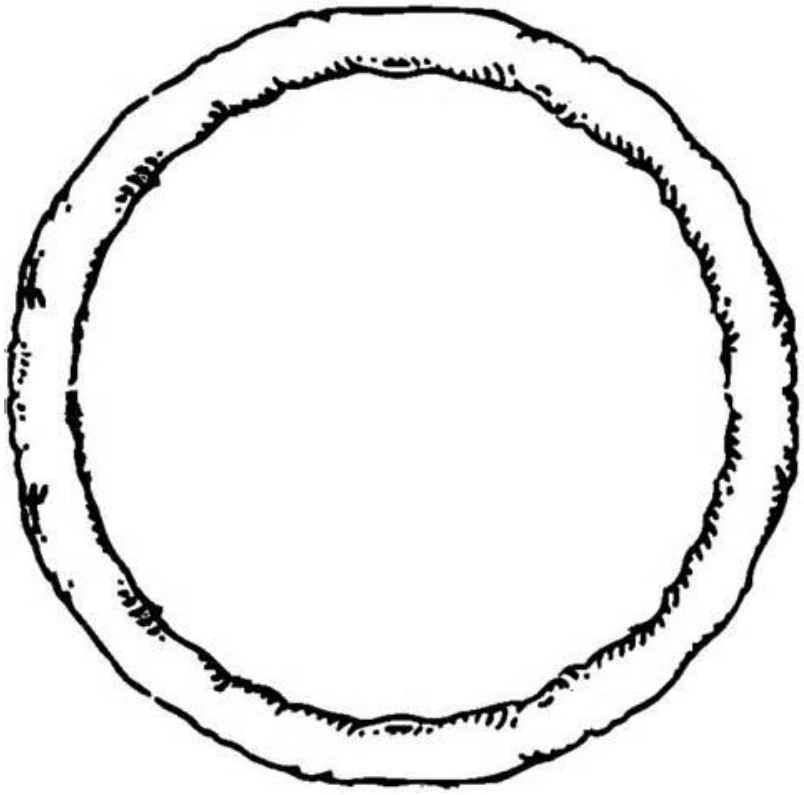
Club:_____

City/County:_____

Activity 1: Pizza Toppings

What do you like on your pizza? Use crayons or markers to decorate your pizza with your favorite toppings! Count how many pieces of each topping you put on the pizza.

Toppings	Number of pieces
Cheese 	
Pepperoni 	
Mushrooms 	
Peppers 	
Pineapple 	
Tomatoes 	
Other	

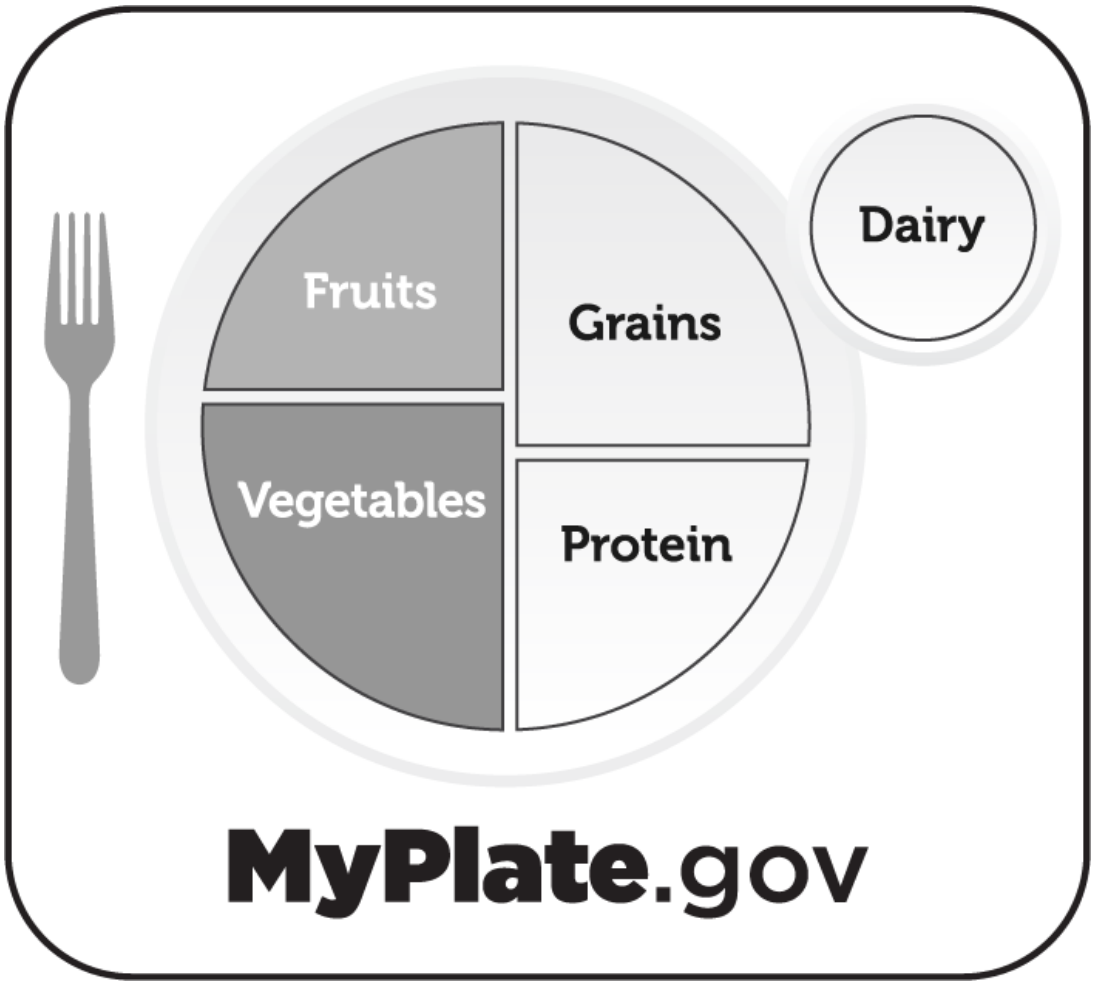


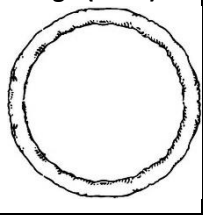
Reflect and Apply

1. Can you think of any other toppings for your pizza? Add extra toppings to the chart and count how many you added!
2. How many total pieces did you add?
3. What topping did you add the most of? What topping did you add the least of?

Activity 2 Pizza on "My Plate"

Cut out the pictures below and place them in the correct section of "My Plate".



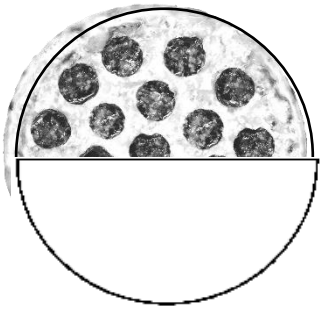
Cheese	Tomatoes	Peppers	Pineapple	Pepperoni	Dough (crust)
					

Reflect and Apply:

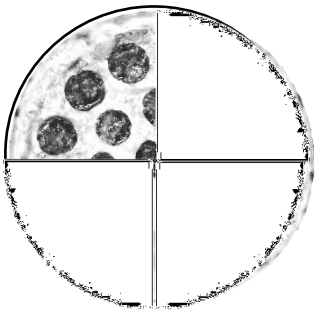
1. Was it hard to decide which topping went in each category?
2. In what category would other toppings that you would add to your pizza be in?
3. What category do some of your favorite foods fit into?

Activity 3 Pizza Fractions

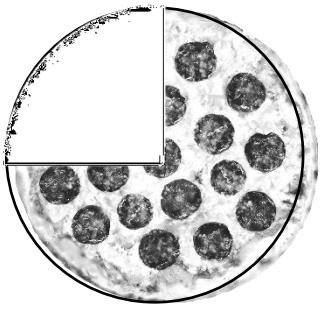
Finish writing each of these fractions. Answer the questions below once you are finished!



$\frac{\quad}{2}$



$\frac{\quad}{4}$



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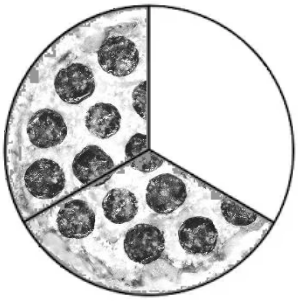
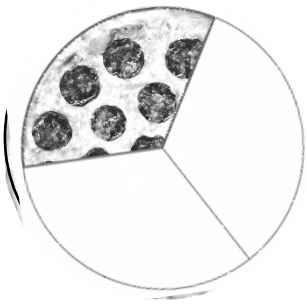
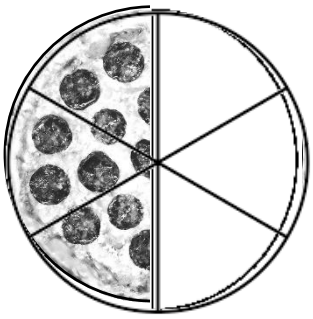


$\frac{\quad}{3}$



$\frac{\quad}{3}$



$\frac{\quad}{6}$

Reflect and Apply:

1. Which two fractions equal the same amount of pizza?
2. If you had two pizzas to feed six people, how would you cut the pizzas so that everyone got an equal amount of pizza?

Activity 4: WHERE DOES PIZZA COME FROM?

Answer each of the following riddles to find out where pizza comes from!

Do:

1. I begin as a kernel. I am taken to the mill to be ground into flour. Yeast and other things are added to me. I am kneaded and left to rise. What am I?
2. I come from an animal with four legs and I have a unique stomach because it has four parts. I am Virginia's #2 farm product. What am I?
3. I grow in a field. I am picked when red. I am cooked and seasoned with spices. What do I become? (tomato sauce)
4. I am an animal with two legs. I normally grow to be about 6-8 pounds. I am Virginia's # 1 farm product. What am I?
5. I come from the milk of a cow. I can be sent to the processing plant and turned into something yellow or white. I melt easily. What am I?
6. I grow in the ground and when I'm cut open I often make people cry. What am I?
7. I come from an animal with four legs and a snout. I may show up as a topping on one of your favorite foods. What am I?
8. I am generally grown in the garden during the summer months in Virginia. I come in many shapes, sizes, colors and flavors, from mild to spicy. I grow on plants. What am I?

We may buy the ingredients for pizza at our local grocery store, but where does pizza really come from?

Pizza comes from the farm!

Riddle Answers:

1. Dough 2. Beef 3. Tomato sauce 4. Chicken 5. Cheese 6. Onion
7. Sausage or Pepperoni 8. Peppers

Adapted from https://4h.unl.edu/documents/There%20is%20a%20Cow%20on%20My%20Pizza.pdf

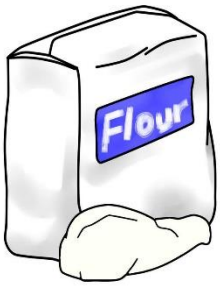
Can you make up your own pizza riddle? Write your riddle here.

Activity 5 Read the book Pizza Day by Melissa Iwai ISBN-10 : 1627797904

Or watch this video! https://www.youtube.com/watch?v=gX2vQNNC80c

The Science of Baking

What some common ingredients used in most baking?



- Flour—for structure.
- Sugar—for tenderness, flavor, and browning.
- Fat—for tenderness and moistness.
- Liquid—like water or milk, to help mix ingredients together and for moistness.
- Eggs—to hold the mix together and give flavor, golden color, and moistness.
- Leavening—like baking powder, baking soda or yeast to make it rise and become airy and light—adding volume to the baked goods.
- Salt adds flavor and controls the growth rates of yeast. It has a strengthening effect on the gluten protein in the dough. Without salt, bread rises faster and air pockets enlarge where the gluten has broken, allowing larger holes to form. For more recipes and tips about using yeast, go to https://redstaryeast.com/, or https://www.fleischmannsyeast.com/

What is Gluten and how is it formed?

Wheat and other related grains contain two proteins. When wheat flour is mixed with water, gluten is formed. The more you mix and knead the dough, the more the gluten forms into longer, stronger strands and gives bread a chewy texture. Too much kneading makes the dough too tough. Resting the dough allows these strands to become stretchy and easier to roll out. Some people cannot eat gluten, so we have included a gluten-free alternative.

Why do professional pizza makers throw dough into the air?

Have you ever been to a pizza place and watched the chef's make pizza by throwing the dough in the air and shaping it? This may seem silly or even showing off, but it is actually the gentlest way to form a pizza crust. It also causes the dough to dry out more without adding more flour and makes a crunchier crust. While we don't recommend this method for beginners, it is interesting to watch a professional throw and shape pizza dough.

Reflect and Apply:

1. What do you need to make a pizza?
2. Where do each of those ingredients come from?
3. What other items could you make with the same ingredients that go into making pizza?

Curious?
Check out this video:
https://www.youtube.com/watch?v=HWL__9yDu8I

Activity 6 Getting a Rise from Yeast

adapted from *Getting a Rise from Yeast, https://ext.vt.edu/4h-youth/4-h-at-home.html*

Yeast are single-celled fungi. They are related to other fungi such as edible mushrooms, and molds found on food and used to ripen cheeses. Yeast cells are egg-shaped and can only be seen with a microscope. It takes 140,000,000,000 yeast cells to make up one package of yeast. The scientific name for yeast is Saccharomyces cerevisiae or "sugar eating fungus." Organisms such as yeast release CO2 as they break down their food. Yeast multiplies based on the limitations of the environment, producing CO2 as it grows.

Supplies:

Three 16 oz plastic water or soda bottles,
6 tsp of active dry yeast (or three packets),
1 ½ cups water,
4 tbsp sugar,
1 tsp salt,
Three balloons

Do:

1. Label three water bottles 1, 2 and 3.
2. Fill three water bottles ½ full with water.
3. In bottle 1 add 2 tsp yeast.
4. In bottle 2 add 2 tsp yeast and 2 tbsp sugar.
5. In bottle 3 add 2 tsp yeast, 2 tbsp sugar, and 1 tsp salt.
6. Predict: Which bottle will produce the most CO2?
7. Place a balloon over the top of each bottle. Allow bottles to sit in a warm, draft-free place for 1-2 hours.

Reflect and Apply:

1. Which bottle has the largest inflated balloon?

2. How did adding salt affect the amount of gas produced (and the size of the balloon?

3. What happens when yeast is mixed with flour, water and sugar?

4. When you use yeast to make pizza dough, what happens?

Activity 7: Pizza in a Bag

Adapted from https://www.fleischmannsyeast.com/recipe/homemade-pizza-crust/

Ingredients

1 cup all-purpose flour
1 envelope Fleischmann's® Pizza Crust Yeast
1-1/2 teaspoons sugar
3/4 teaspoon salt
2/3 cup very warm water (120˚ to 130˚F)*
3 tablespoons olive oil
An additional ¾ to 1 ¼ flour
1/2 to 1 cup pizza sauce
other toppings as desired1 to 2 cups
(4 to 8 ounces or 125 to 250g) shredded mozzarella cheese

Equipment

Liquid measuring cup
Dry Measuring Cups
Measuring Spoons
Butter knife
Spoon
Rolling Pin (optional)
1 gallon-sized zipper seal freezer bag
12-inch pizza pan or stone

Do:

Preheat oven to 400 degrees Fahrenheit.

Combine 1 cup of flour, 1 package of dry yeast, sugar and salt in a reclosable gallon freezer bag. Squeeze the upper part of the bag to force out air. Seal and then shake dry ingredients thoroughly. Heat water to 120 degrees fahenheit (Run hot tap until it is very hot.) Pour into the bag with the flour mixture. Add 3 tablespoons of olive oil or vegetable oil to the flour mixture. Knead the dough in the bag, mixing gently and thoroughly. Once the dough is well mixed, slowly add the additional flour until the mixture unitl if forms a stiff dough that pulls away from the bag.

Sprinkle about two tablespoons of flour on a clean, flat surface. Rub the flour on the surface to spread it evenly. Rub a small amount of flower on your hands. Empty dough from the plastic bag on to the flat surface—you may have to turn the bag inside out. Push the dough and down and outward. Fold the dough on top of itself. Turn the dough ¼ turn and repeat for about four minutes until the dough is smooth and stretchy.

Allow the dough to “rest” for about 10 minutes

Pat Dough or use a rolling pin to stretch the dough into a 12 inch circle. Place on a greazed pizza pan or baking sheet. Form a rim by pinching the dough around the edges. Top the dough with your favorite pizza sauce and toppings. Bake 12-15 minutes or until the crust is golden brown and the cheese is bubbly.

Alternate Activity 7: Pizza in a Bag (Gluten Free)

Adapted from https://www.fleischmannsyeast.com/recipe/gluten-free-pizza-crust/

Ingredients

2 cups Gluten-Free Flour Mix
3 tablespoons millet flour OR sorghum flour
1 tablespoon sugar
3/4 teaspoon salt
1/2 teaspoon baking powder
1 cup very warm water (120º to 130ºF)
1 (2-1/4 tsp.) envelope Fleischmann's® Pizza Crust Yeast
3 tablespoons olive oil pure OR canola oil
1/2 to 1 cup pizza sauce
other toppings as desired1 to 2 cups (4 to 8 ounces or 125 to 250g) shredded mozzarella cheese

Gluten-Free Flour Mix*
6 cups corn starch
3 cups brown rice flour
1 cup potato starch
2 tablespoons xanthan gum

Do:

Preheat oven to 400 degrees Fahrenheit.

Combine gluten-free flour mix , millet or sorghum flour, sugar, baking powder and salt in a reclosable gallon freezer bag. Squeeze the upper part of the bag to force out air. Seal and then shake dry ingredients thoroughly. Heat water to 120 degrees fahenheit (Run hot tap until it is very hot.) Dissolve yeast in warm water. Pour into the bag with the flour mixture, using a rubber spatula to get all of the yeast. Add 3 tablespoons of olive oil or vegetable oil to the flour mixture. Knead the dough in the bag, mixing gently and thoroughly. Once the dough is well mixed, allow to rest for 30 minutes.

Preheat oven to 400 degrees Fahrenheit. Brush a pizza pan or baking sheet with oil. Remove dough from bag. You may have to turn the bag inside out. Rub a small amountof oil on your hands.

Pat Dough or use a rolling pin to stretch the dough into a 12 inch circle. Place on a greased pizza pan or baking sheet. Form a rim by pinching the dough around the edges. Bake crust on lower oven rack for 10 to 12 minutes or until edges begin to brown Remove partially baked crust from oven, add toppings and return to oven to complete baking for 5 to 8 minutes or until edges are browned and cheese is melted.

Reflect and Apply:

1. How did you pizza turn out?
2. What ways could you alter the receipe?
3. What are some other ways that you could make a pizza?

Activity 8: Read Everynight is Pizza Night by by J. Kenji López-Alt and Gianna Ruggiero

Or watch https://www.youtube.com/watch?v=dWDjIWLxZJI

Reflect and Apply:

1. What is your favorite food (other than pizza)?
2. Why is it important to try new foods?
3. What are some new foods that you plan to try?

Additional Activities:

1. Try other bread in a bag recipes! Go to https://4-h.org/about/blog/inspire-kids-to-do-bread-in-a-bag/
2. Learn more about where pizza comes from at https://www.agfoundation.org/news/where-does-pizza-come-from
3. Plan and plant your own pizza garden! https://extension.wvu.edu/lawn-gardening-pests/gardening/creative-gardening/grow-your-own-pizza-garden
4. Try making multicultural pizzas! https://4-h.org/about/4-h-at-home/cooking-activities/top-it-pizza-recipe-and-activity/
5. Check out more baking and science activities at https://ext.vt.edu/4h-youth/4-h-at-home.html

References:

- *https://4h.unl.edu/documents/There%20is%20a%20Cow%20on%20My%20Pizza.pdf*
- *https://ext.vt.edu/content/dam/ext_vt_edu/topics/4h-youth/at-home/4H_Home.Getting%20a%20Rise%20from%20Yeast.pdf*
- *https://extension.msstate.edu/sites/default/files/publications/publications/p1577.pdf*
- *https://recipes.howstuffworks.com/tools-and-techniques/tossing-a-pizza-101.htm*
- *https://www.exploratorium.edu/cooking/bread/bread_science.html*
- *https://www.fleischmannsyeast.com/recipe/gluten-free-pizza-crust/*
- *https://www.fleischmannsyeast.com/recipe/homemade-pizza-crust/*
- *https://www.gov.mb.ca/agriculture/industry-leadership/4h/pubs/foodpizzamem.pdf*
- *https://www.ifst.org/lovefoodlovescience/resources/protein-gluten-formation#:~:text=The%20gluten%20is%20formed%20during,to%20become%20tough%20and%20chewy*.

For ages 5-11
SOL's: Math K 1, 3, 5, 12; 1.4, 2.4
Life skills: Critical Thinking, Problem Solving, Learning to Learn, Communication
5 C's: Critical Thinking Skills, Communication Skills, Creative Thinking Skills
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