

Between the Slices



Grade Level:4- 5

Objectives: After completing this activity, students will be able to identify products grown on a farm and how they are processed into items eaten every day.

Introduction:

Today's farmers make it possible for food processors to use the quality products such as wheat, pork, and milk to produce the foods we eat and enjoy. But it takes more than the farmer to get these products to our tables. Growing and harvesting crops and raising livestock is only the beginning. It takes thousands of workers to get the agricultural products to our stores and restaurants. Read below to find out what some products go through to get from the farm to the consumer.

Wheat – A Grain

Wheat is planted in the fall and is typically called winter wheat. In July, the wheat is ready to harvest. Farmers use a giant machine called a combine to harvest the wheat. The combine cuts the wheat stalks out of the field and separates the wheat head from the stalk. The wheat head moves into a storage tank on the combine. When the tank gets full the farmer unloads the combine into trucks or wagons using an auger. An auger is like an arm on the combine. It pushes grain through the combine and into the truck or wagon. The farmer then takes it to the elevator. The elevator then ships the wheat by truck, rail, or barge to a terminal. At the terminal the wheat is sold to the various industries, which make food or feed, and for shipment overseas. The place where wheat is shipped to make food is called the mill. The mill breaks the wheat kernels into pieces and sifts the pieces to get the bran and germ (parts of the wheat kernel) out. This is repeated three times to make the substance we know as flour. The miller then adds B-vitamins and iron for nutrients. The flour is shipped in bags to the bakery or grocery store.

Cheese – A Dairy Product

Cheese is a healthy, tasty food that is made from milk. The cows on the farm are milked using a milking machine that pumps the milk from the cows and into huge storage tanks. These storage tanks cool the milk until refrigerated tank trucks come to pick it up. The milk is then made into cheese. First, the milk is heated and quickly cooled. This is called pasteurizing. Pasteurizing is a process that kills any harmful bacteria. The processed milk is then treated to form a soft, custard-like substance called curd. The curd contains a liquid called whey, which must be taken out through a special process before cheese can be made. Special knives cut the curd into thousands of small cubes, and the whey oozes from them. Heating and motion force more whey from the curd. The curd —ballll is then lifted from the vat. The —ballll is broken up into small pieces and put into presses that keep the cheese under great pressure for a few hours to a few days. During pressing, more whey drains out, and the curd is shaped into clocks or wheels. After it is pressed, it is immediately wrapped in plastic. The cheese is then aged in cool storage rooms. The aging times vary for different cheeses. Brick cheese and others need two months to age while parmesan cheese requires about a year. After being aged, the cheese is packaged in a wide variety of shapes and sizes.

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Pepperoni, Sausage and Ham – Pork Products

Pigs go to market when they are only five to six months old and at the weight of 240-260 pounds. Pigs may be sold at an auction market or sale barn, or may be bought directly by an order buyer who buys for a packer. Meat inspectors employed by the United States Department of Agriculture inspect live pigs, hog carcasses, and the entire packing plant to make sure that pork is safe to eat. The pork is ground up, and special seasonings are added. Pork is sold as fresh meat or as processed meat. Fresh meat is the sausage, pork chops, and roasts. Processed meat is the salami, hot dogs, pepperoni, bologna, and luncheon ham. Processed meats are cured with salt and then smoked, baked, or dried. About half of the pork produced in the United States is sold in supermarkets. The other half is eaten at restaurants, hospitals, schools, and business cafeterias.

Activity Outline:

1. Ask the students if they know how the food grown and raised on a farm gets to them. Using the introductory information help the students understand the processes that food goes through.
2. Discuss how food processing is the changing or preparing of food by special treatment. Hand out the worksheet —Vocabulary Match-Up. Have the students complete the worksheet and then go over the answers with the class. Answer Key: 1.D; 2.E; 3.G; 4.F; 5.A; 6.C; 7.B
3. Next, have the students write a paragraph describing how to make their favorite pizza. Remind students to use transition words in their writing such as next, first, second, and finally.
4. Pass out the —Secret Slices worksheet. Have the students figure out what type of pizza each child ate. Answer Key: Sara – Bologna; Sam – Ham & Cheese; Sally – Egg Salad; Steven – Peanut Butter & Jelly.

Discussion Questions:

1. What is food processing?
2. Explain how food gets from the farm and to the grocery store.
3. How is wheat processed into flour?
4. How is milk taken to a dairy plant?
5. How is pork cured into processed meat?

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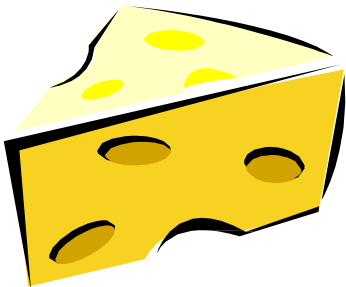
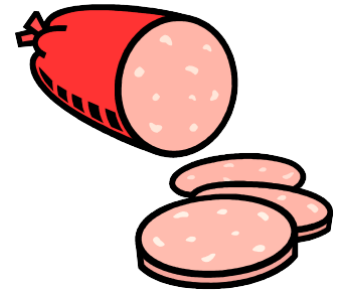


Wheat—A Grain—Grown on a Plant

Grains must be processed before people can eat them. Some grains are fed to livestock after they are harvested. In addition to pizza crust, what else can wheat be made into?

Pepperoni, Sausage or Ham—From Pigs—Livestock

Cement, leather, gelatin, cosmetics and paint brushes are only a few of the by-products we get from pigs. Can you name some of the other meats we enjoy that come from pigs?

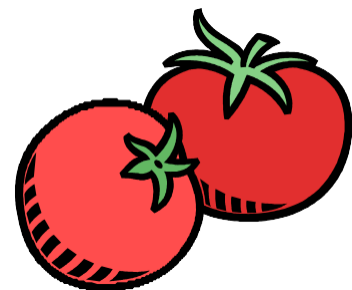


Cheese—Dairy Product

Milk comes from dairy cattle. It is high in calcium which builds strong bones. Many other products are made from milk. What are some other dairy products?

Pizza Sauce—From Tomatoes—Grown on a Plant

Pizza sauce is made from tomatoes. While tomatoes are considered a vegetable by most people, they are really a fruit. A fruit is defined as any product of a flowering plant that contains seeds. What other —vegetablesll can you think of, that have seeds, and are technically fruits?



Name _____

Vocabulary Match-Up

Directions: Match the vocabulary word to the correct definition. Write the correct letter in the blank before the vocabulary word.

- | | |
|-------------------------|--|
| 1. _____Agriculture | a. to rely or support one another |
| 2. _____Consumer | b. the process of selling and making goods available |
| 3. _____Food Processors | c. companies that sell and market goods |
| 4. _____Producer | d. the science of producing crops and raising livestock |
| 5. _____Interdependent | e. a person who buys and uses goods |
| 6. _____Distributors | f. a person who grows agricultural products |
| 7. _____Marketing | g. companies that change raw products (tomatoes, wheat, milk) into other products (sauce, flour, cheese) |



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Directions: Match the vocabulary word to the correct definition. Write the correct letter in the blank before the vocabulary word.

1. D Agriculture a. to rely or support one another

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3. G Food Processors c. companies that sell and market goods

4. F Producer d. the science of producing crops and raising livestock

5. A Interdependent e. a person who buys and uses goods

6. C Distributors f. a person who grows agricultural products

7. B Marketing g. companies that change raw products (tomatoes, wheat, milk) into other products (sauce, flour, cheese)



Name _____

Secret Slices

Four classmates, Sara, Sam, Sally, and Steven, enjoyed their favorite pizza for lunch yesterday. Each child had a different slice. Can you match the child with the correct pizza?

	Cheese	Pepperoni	Sausage	Supreme
Sara				
Sam				
Sally				
Steven				

Clues:

1. Sam had 5 different ingredients on his pizza.
2. Sara sat next to the boy who was eating the cheese pizza.
3. Steven's pizza was not made with meat.
4. Sally always drinks soda with her sausage pizza.



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Sam				X
Sally			X	
Steven	X			

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