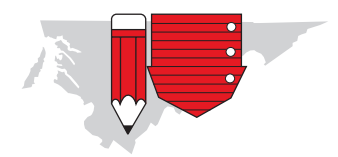


What's Growing On In Virginia?
Virginia Foundation for Agriculture in the Classroom
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About the Newsletter

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What's Growing On In Virginia?

AGRICULTURE IN THE CLASSROOM

FALL 2014 / VOLUME 25 NO. 2

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From the ground to the grocery store

Despite what some people think, food doesn't come from a grocery store. Rather, it starts at a farm and eventually ends up on your fork.

But along the way, a wide variety of careers and industries are involved in the process.

Butchers, bakers and container makers are all parts of the chain leading from farms to fully stocked grocery store shelves.

Food begins with farmers

Let's start at the beginning: the farmer. Less than 2 percent of the U.S. population farms, but each farmer, on average, produces enough food to feed 155 people! There are small-scale specialty farmers who grow things like edamame or asparagus for niche markets. There are larger-scale farmers who grow thousands of acres of crops for animal feed. And there are livestock producers who raise beef, poultry and pork for delicious dinners. In Virginia, there also are fruit and vegetable growers, small grains producers and fish and sheep farmers.

Processors, inspectors continue food flow

Once those products are raised on a farm, they need to be processed. Processing involves the cleaning, cutting, preserving and packaging of agricultural products before they reach the consumer.

For example, apples may go to a food processor to be turned into applesauce. Or beef cattle may go to a processor to be turned into hamburger and steaks. Tomatoes need to be put into packages and sealed for transport to grocery stores. And corn may be deposited at a feed mill where it is ground into feed for livestock.

According to the U.S. Department of Agriculture, food process engineers are the people who research and develop new and existing products and processes. They also help design processing, handling and packaging equipment.

At the processing plant, much of our food supply is subject to inspection by a food safety specialist. Those professionals ensure that our food is safe. They use knowledge of food protection principles, food science and bacterial and microbial principles, and they conduct inspections of food products and of storage and preparation facilities.



Nutrition is key part

Nutritionists help determine information that goes on food labels so consumers know what they are eating. Nutritionists help people make a connection between food, nutrition and health. Some nutritionists counsel people about food choices, while others look for alternative foods or diet recommendations based on their research.

Labeled, inspected products are shipped to farmers' markets, grocery stores, wholesalers and large discount stores. This is the distribution end, which involves the transportation of products. In this field there are careers for truck drivers and warehouse employees.

Next, those products need to be marketed to consumers. Marketers promote products and help increase sales.

(Continued on the next page)

Plenty of jobs in ag and food industry

Each year, the USDA needs 50,000 college graduates to fill jobs in the food, agricultural and natural resource systems. Those people are hired to develop and use new production and processing techniques; discover new uses for agriculture and forest products; operate in ways that are environmentally sensitive; and advance the economic competitiveness of the United States through foreign trade.

They will be catering to food consumers, those who drive many of the decisions in the farm-to-fork chain. Their choices affect the entire agriculture industry.

Grocery stores evolved for consumers

The way foods are displayed and labeled in grocery stores affects consumers' choices. Grocery stores have come a long way with regard to the quantity of products offered, as well as the variety of products.

Long before there were supermarkets, people shopped for groceries in specialty shops. They went to butchers for meat, bakeries for bread, greengrocers for fresh fruit and vegetables and pharmacies for medicine, toiletries and other non-food items.

In the 1800s, some merchants began to open general stores where customers could buy several different kinds of products under the same roof. A clerk would measure an assortment of goods—flour, coffee, fabric, nails, garden seeds and other items—according to how much the customer needed. By the early 1900s, these general stores had evolved into small neighborhood grocery stores where clerks were available to gather groceries and measure them out in the amounts requested.

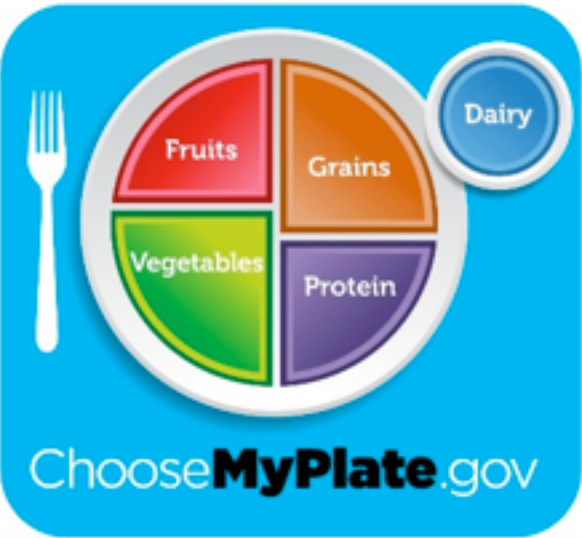
Clarence Saunders opened the first self-service general store in Memphis, Tenn., in 1916. Shoppers walked through four aisles to view the store's 605 items. Goods were sold in packages and were organized into departments. Many customers resisted the self-serve idea, and grocers had to convince the shoppers that they would save money by getting their own groceries.

Now, many consumers seek out discount retailers to get the lowest possible prices on their groceries.

Bonus Activities

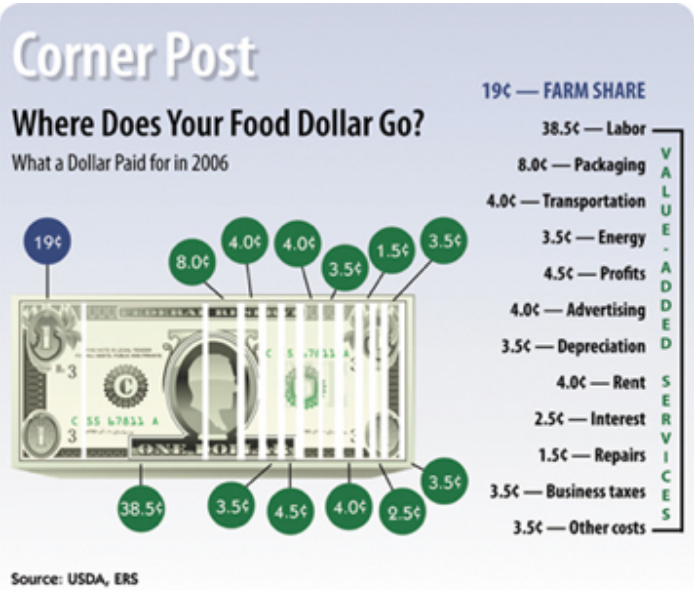
Make Healthy Choices at the Grocery Store with My Plate:

For lessons using My Plate, visit the AITC website, AgInTheClass.org.



Where Does Your Food Dollar Go?

Try this: Have students create a bar graph to display where your food dollar goes.



LESSON PLAN >> PRESCHOOL

Grocery Matching Game

Background Knowledge

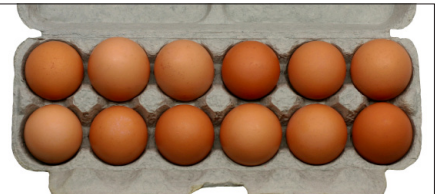
Help your students connect everyday grocery items and foods they enjoy with their origins on the farm. This lesson will help students understand that all of the foods they see on a trip to the grocery store all have one thing in common—they began on the farm. By recognizing this fact students will begin to understand the importance of farms and the resources they provide.

Procedure

1. Bring in a grocery bag filled with empty food cartons like those suggested under "Materials." Take each item out of the bag, and ask students if any of them look like items they have seen in the grocery store or in their own pantries or refrigerators.
2. Ask students to brainstorm similarities and differences between the items. Depending on the age and ability of the group, you may choose to organize their answers in a Venn diagram.
3. Explain that a key similarity between each of the items is that they all began on a farm. Discuss how farmers raise crops and livestock to provide us with the food that we eat each day.
4. Display the pictures or artificial items listed under materials and ask students to match the farm plant or animal with the grocery item.

Extension

Have students bring in an empty food container from their favorite food. Then ask the class to correctly identify the on-the-farm source of that item.



LESSON PLAN >> ELEMENTARY SCHOOL

SOL:

History and Social Science: K.6, 2.7

Objective:

- Identify the natural, human and capital resources required to get food from the farm to the grocery store
- Correctly sequence the steps involved in food production

Materials:

- Templates
- Yarn
- Tape
- Markers/crayons
- Empty cereal boxes or packaging for other products with corn in it, such as corn chips

Food Source Sequence

Background Knowledge

Many people enjoy sweet corn on the cob, especially during the summer when it's harvested. Corn, however, is used throughout the year in a wide variety of foods and other products that we enjoy. Corn flour, cornstarch, cornmeal, corn oil, corn syrup and cereal are all made from corn. Other products made from corn include baby foods, margarine, detergents, sandpaper, chewing gum, road de-icers, antibiotics, potato chips, plastics, cosmetics and rubber tires. The majority of Virginia-produced corn is grown for animal feed.

There are many different steps involved in turning corn from the field into food products on grocery store shelves. Virginia farmers generally plant their corn in April and May and harvest it in September and October. Corn is cut and harvested using a combine. The kernels are shelled (taken off the cob) and then processed to make products we enjoy daily. After the product has been made and manufactured, a truck picks it up and takes it to the grocery store, where it can be purchased by the consumer.

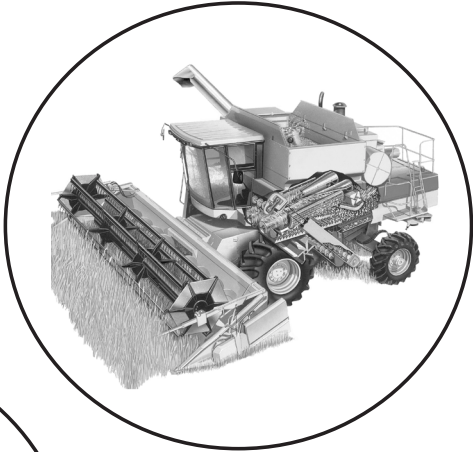
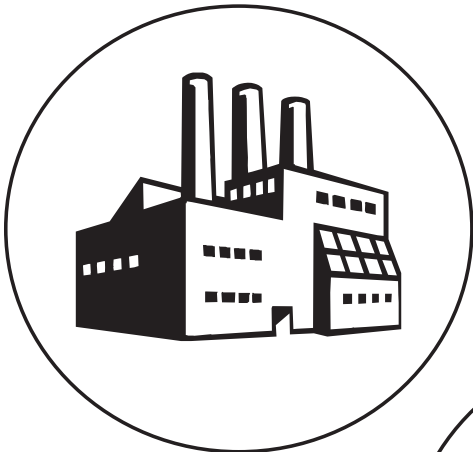
Prior to beginning the lesson, have students bring in an empty cereal box, corn chip bag, soda can or packaging for some other food product containing corn.



Procedure

- Discuss the process by which food is grown and manufactured into products. The following books provide excellent overviews:
"Corn in the Story of Agriculture" by Susan Anderson and JoAnne Buggey
"From Wheat To Pasta" by Robert Egan
"Journey of a Bowl of Cornflakes" by John Malam
- Distribute the attached templates and the corn food product containers. Have students cut out the pieces of the template and sequence them in the correct order on their desks: Corn - Combine - Factory - Truck - Grocery Cart. On the back of each piece they can label 1st, 2nd, 3rd, 4th and 5th.
 - Next, have them tape the template pieces to a piece of yarn and then attach it to the container. The grocery cart should be closest to the container and the corn farthest away. The steps in the chain can be placed inside the container and then pulled out in order to tell the story of corn from field to store.
- After students have completed their sequencing chain, have them list the natural, human and capital resources that were involved in producing the food for the consumer. Alternatively: For younger students you may have them list the name of the job on the back of each card (farmer, factory worker, truck driver, grocer).

Lesson adapted from Illinois Agriculture in the Classroom.



Bonus Activities

LET'S GO TO THE GROCERY STORE

(Sung to the tune of "Mary Had a Little Lamb")

Let's go to the grocery store,
Grocery store, grocery store.
Let's go to the grocery store
To get some food to eat.
We'll buy bread and eggs and milk,
Eggs and milk, eggs and milk.
We'll buy bread and eggs and milk
And ice cream for a treat

Repeat the song, letting your children name other foods to buy at the grocery store.

Credit: preschoolexpress.com

PRACTICE MAP SKILLS

Discuss the many different types of food found at the grocery store—fresh produce, breads, dairy, canned and frozen items. Have students create a map of a grocery store and include a key that identifies the different sections.

MEAL PLANNING AND BUDGETING

Bring in grocery store circulars, and have students practice meal planning using a budget. Point out that some produce is sold at a price per pound; create word problems to demonstrate knowledge of this.



LITERARY CORNER

Food from Farms, Nancy Dickmann, Acorn, ISBN: 1432939432

Foods from the Farm, Rebecca Weber, Compass Point Books, ISBN: 0756509289

From Tomato to Ketchup, Roberta Basel, First Facts Publishing, ISBN: 0736842861

From Wheat to Pasta, Robert Egan, Children's Press, ISBN: 0516260693

How Did That Get in My Lunchbox?: The Story of Food, Chris Butterworth, Candlewick, ISBN: 0763665037

Journey of a Bowl of Cornflakes, John Malam, Heinemann First Library, ISBN: 1432966081

AITC Program Highlights

AITC Teacher of the Year

Do you have a passion for integrating agriculture into your curriculum? Have you used creative or innovative ways to do so? Then you should apply to become Virginia AITC's 2015 Teacher of the Year. For more information and to apply, visit the AITC website, AgInTheClass.org.

Help support AITC

Virginia educators like you are partners in our mission to educate children about the importance of agriculture. The training and resources that we provide will always be provided at absolutely no cost to you, thanks to donations made to our Foundation for Agriculture in the Classroom. We would like to extend the invitation for you to join our family of donors and help support a free agriculture education for Virginia schoolchildren. If you wish to contribute a tax-deductible gift to our program, please visit AgInTheClass.org and click on the "Donate Now" button. Thank you for your support!

