

Cultivating Oklahoma's Future

Skills: Language Arts, Visual Arts, Social Studies

Objective: Students will discuss information and vocabulary about some new developments in agriculture and create a bulletin board on the future of agriculture in Oklahoma.

Background

To cultivate a field is to prepare it for a crop to be planted for future growth. A long time ago, people had to gather wild plants for their food. One day a woman figured out that she could save seeds and plant them. That way her family would have food the following year. This was the beginning of agriculture. That first ancient woman who cultivated a field was preparing for the future.

Agriculture prepares us for the future. This means growing food but also protecting our soil and water, improving our health, keeping our food safe, and making sure farmers make enough money so they can earn a living.

Without healthy soil and clean water, farmers would not be able to grow food for the future. One of new methods farmers use to protect soil and water is called "precision agriculture." Precision agriculture uses computers and global positioning systems (GPS) to help farmers decide exactly how much water, fertilizer, and pesticide they need to use in different places in their fields. This helps the farmer use less water and also keeps fertilizers and pesticides from harming the soil or water.

We all need to be healthier, and Oklahoma agriculture can help. Fresh fruits and vegetables help prevent diseases, but most Oklahomans don't eat enough of these foods. Oklahoma farmers grow many fruits and vegetables and sell them in farmer's markets across the state.

Another way to improve our health is to improve the foods we eat. Biotechnology is a method scientists can use to add nutritional value to some foods and take out some things that are not good for us.

The food we eat in America is very safe, but sometimes food makes people sick. When that happens, it is very important to find out quickly what caused the illness and where the food came from. That helps keep other people from getting sick. In the future different kinds of scientists will work together to quickly and accurately identify the source of any contamination in agricultural products or disease outbreaks.

P.A.S.S.

PRE-KINDERGARTEN

Approaches to Learning—1.4;
1:8;

Creative Skills—1:2, 1:4;

Language Arts—1:2; 3:6; 7:1,2,3

Social and Personal Skills—
1:3,5,8,10

Social Studies—1:1

KINDERGARTEN

Reading—1.1,3,4; 2.3,5; 4.1,2;
6.2,4

Writing—1.1,2,3

Oral Language—1.1,2,3

Visual Arts—3.1a

GRADE 1

Reading—1.1; 2.3,6; 3.1abc,2;
4.1,2,3

Writing—1.4; 2.5

Oral Language—1.1; 2.4,7

Visual Arts—3.2

Social Studies—4.1; 5.1,2

GRADE 2

Reading—1.1ab; 2.1abc,2a;
5.1.3ab

Writing—1.3; 2.1

Oral Language—1.1; 2.3

Visual Arts—3.2

Social Studies—4.1; 5.2

Vocabulary

agriculture—the science or occupation of cultivating the soil, producing crops, and raising live-stock

ancient—of or relating to a period of time long past

biotechnology—the manipulation (as by changing genetic material) of living things to produce useful products (as crops resistant to disease)

commodity—a product of agriculture or mining

consumer—a person who buys and uses up goods

cultivate—to prepare land for the raising of crops

fertilizer—a substance (as manure or a chemical) used to make soil produce larger or more plant life

future—time that is to come

health—the condition of being sound in body, mind, or spirit; especially, freedom from disease

income—a gain usually measured in money that comes in from labor, business, or property

pesticide—an agent used to destroy pests

profitable—producing gain after all the expenses are subtracted from the amount received

technology—the use of science in solving problems

traditional—based on custom

People living in the US pay a smaller percentage of their incomes for food than anyone else in the world. That is good for the consumer but not always great for the farmer. We need farmers, but farmers need to earn a living.

To make farming more profitable some Oklahoma farmers are trying different ways to farm and different ways to sell what they grow. Some grow fresh fruits and vegetables and sell directly to consumers at farmers' markets. Some farmers take orders over the Internet. Some grow products that are organic for consumers who are willing to pay the extra cost.

Another way to make small farming more profitable is to add value to commodities produced on the farm. For example, a farmer who grows wheat might make pizza dough and sell it for more than what he would get if he just sold the wheat.

In the future we will need to keep growing more food for all the people in the world. That's why it is so important for young people like you to study hard and prepare for the many new and different career opportunities that will be available in agriculture.

Activities

1. Read and discuss background.
2. On large story paper, students will dictate or write one or two sentences about the information presented in the background.
 - Students will illustrate their writing at the top of the page.
3. Students will work in groups or as a class to analyze some of the "Big Words" from the vocabulary list
 - Arrange the letters from the selected word in alphabetical order, with vowels first, followed by consonants. (Example—for agriculture—"a e i u u c g l r r t")
 - Students will use the letters to list possible blends, digraphs, rhymes, prefixes, and/or suffixes
 - Students will use the letters to list up to 20 three-letter words.
 - Students will use the letters to list up to 50 four- and five-letter words.
 - Students use the letters to list up to 20 words with six or more letters.
 - Using all the letters, rearrange the letters to make the Big Word. (agriculture)
4. As a class, develop a bulletin board to illustrate the theme, "Agriculture: Cultivating Oklahoma's Future."

Extra Reading

Hall, Donald, *The Milkman's Boy*, Walker, 1997.

Hill, Lee Sullivan, *Farms Feed the World*, Carolrhoda, 1997

Rendon, Marcie R., and Cheryl Walsh Bellville, *Farmer's Market: Families Working Together*, Carolrhoda, 2001.