

# Agriculture Feeds Oklahoma

## Objective

Students will read and discuss information about the commodities grown in Oklahoma that provide our food. Students will locate on a map the places in Oklahoma where foods they commonly eat are grown. Students will graph information related to the foods they eat on a pie chart. Students will write essays on the subject “Agriculture Feeds Oklahoma.” Students will make a video on the topic.

## Background

Agriculture feeds Oklahoma. Anywhere you live in our state, you are surrounded by farms producing food for you to eat. In the many cow/calf operations, calves graze on abundant Oklahoma grass until they weigh enough to be sold to beef producers or feedlots. Hogs become bacon, pork chops and other cuts of pork. Sheep and lambs provide lamb chops or roast, while goats provide meat and milk. Dairy cows give us milk, cheese, yogurt, ice cream and more. Chickens give us meat and eggs. Hay, barley, oats, sorghum and corn grow in Oklahoma fields to feed the farm animals.

Wheat for your bread grows almost everywhere in our state. In many places you will find a variety of fruits and vegetables. Peanuts, canola, soybeans and cotton provide oils used in salad dressings and other foods.

Farmers in Oklahoma can grow such a wide variety of foods because our climate is diverse and we have a long growing season. We typically have over 200 frost free days in the central and southern parts of the state. The deep, organic-rich soils built up by tall grass prairie retain fertility and good structure. The short-grass prairie in the west is fine for grazing beef cattle and sheep. Feed crops are grown under irrigation where rainfall is scarce. We have many different kinds of soil in Oklahoma— more different kinds than anywhere else in the world.

The bounty of Oklahoma agriculture can be found in supermarkets, in farmer’s markets and roadside stands, in food cooperatives and in Community-Supported Agriculture (CSA). Oklahoma farmers provide fruit and vegetables to school cafeterias through the Farm to School program. Some restaurants serve food grown in Oklahoma as well.

Oklahoma agriculture provides a balanced diet. The most recent guidelines from the US Department of Agriculture (USDA) use a dinner plate to illustrate the best way to balance your diet for good health. According to these guidelines, we should be getting half our calories (half the plate) from vegetables and fruits. Oklahoma vegetable farmers grow tomatoes, squash, okra, beans, peas, spinach and other greens, cabbage, broccoli, sweet potatoes and more to provide a colorful variety of healthy options. Melons, peaches, blackberries, strawberries and other fruits add nutritious sweetness to the plate.

## Standards

### GRADE 7

P.A.S.S.

Social Studies—5.2; 6.1

Health—1.4; 3.10

**COMMON CORE**

Language Arts—7.L.4;

7.RI.1,4; 7.W.1,2,3

Math Practice—MP.3,5

Math Content—

7.SP.1,2,3,4,6,7

### GRADE 7

P.A.S.S.

Social Studies—1.5

Health—1.4; 3.10

**COMMON CORE**

Language Arts—8.L.4,6;

8.RI.1,10; 8.W.1,2,4,5,10

Math Practice—MP.3,5

Math Content—8.SP.1

## Vocabulary

**agriculture**—the science or occupation of cultivating the soil, producing crops, and raising livestock

**beef**—the flesh of a steer, cow, or bull

**barley**—a cereal grass with flowers in dense spikes; also its seed used especially in malt beverages, in foods (as soups and cereals), or as feed for livestock

**bounty**—something given generously

**canola**—a plant having seeds that are the source of canola oil

**climate**—the average weather conditions of a particular place or region over a period of years

**cooperative**—an association owned by and operated for the benefit of those using its services

**diverse**—differing from one another

**fertility**—producing vegetation or crops plentifully

**frost**—the temperature that causes freezing

**grain**—the edible seed or seedlike fruit of grasses that are cereals (as wheat, Indian corn, or oats)

**graze**—to feed on growing grass or herbs

**irrigation**—the act or process of supplying with water by artificial means

**nutritious**—providing nutrients

**organic**—of, relating to, or obtained from living things

**prairie**—a large area of level or rolling grassland

**protein**—any of numerous substances that consist of chains of amino acids, contain the elements carbon, hydrogen, nitrogen, oxygen, and often sulfur, include many compounds (as enzymes and hormones) essential for life, and are supplied by various foods (as meat, milk, eggs, nuts, and beans)

**sorghum**—any of a genus of Old World tropical grasses that look like Indian corn; especially : one cultivated for grain, forage, or syrup

**structure**—the arrangement or relationship of elements (as particles) in a substance

A little more than 1/4 of your plate should be filled with grains, mostly whole grains. Whole wheat from Oklahoma farms are the main ingredient in whole grain bread and some cereals. Oklahoma ranks number two in the nation for the production of wheat.



Animal agriculture in Oklahoma provides beef, pork, poultry, lamb, bison, goat, eggs and dairy products for the protein portion of your plate. USDA guidelines recommend filling a little less than one-fourth of your plate with protein. Other protein sources provided by Oklahoma agriculture include pecans, peanuts and beans.

## Activities

### ACTIVITY ONE: READ AND DISCUSS

1. Read and discuss background and vocabulary.
2. Students will read the Reading Page included with this lesson independently or take turns reading it aloud as a class.
  - Students will list the kinds of agriculture mentioned in the reading.
  - Students will discuss unfamiliar vocabulary and look the words up in a dictionary if necessary.
  - Students will discuss where they or their families buy food.
3. Show students a copy of the Oklahoma commodity map, available on the website. Click on “Additional Resources,” and scroll down to “Maps.”
  - Discuss the areas in Oklahoma where each of the items mentioned in the background are grown.
4. Students will use the worksheet provided to write down everything they have to eat for a day. Students will identify the agricultural commodity from which each item was made and list it in the appropriate space provided on the worksheet.

### ACTIVITY TWO: MYPLATE

1. Provide paper plates and an assortment of healthy foods: cheese, nuts, boiled egg slices, whole wheat crackers or cereal pieces, raw Oklahoma fruits and veggies like squash, melon, cucumbers, etc.
  - Students will fill their plates correctly, based on the

USDA MyPlate plan.

2. Students will use the data they recorded on the worksheet from Activity One to develop graphs showing how much they ate from each of the MyPlate groups during the day.
  - Students will use the data to develop graphs as a class, showing how much the class ate from each group during the day.
  - Discuss: How did the food eaten by the total class during the day compare with the MyPlate guidelines. Discuss steps students might take to get closer to the guidelines.

#### ACTIVITY THREE: ESSAY

1. Discuss the elements of an essay.
  - A strong thesis statement with logical supporting points.
  - Body paragraphs that discuss the supporting points in the order they are mentioned in the thesis statement.
  - Good transitions between paragraphs.
  - A conclusion which summarizes what has been said in the body of the paper.
  - Appropriate diction and tone.
2. Students will write an essay based on the theme “Agriculture Feeds Oklahoma.”

#### ACTIVITY FOUR: MAKE A MOVIE

1. Students will develop a script and make a short movie with the theme “Agriculture Feeds Oklahoma.”

#### Extra Reading

- Artley, Bob, *Once Upon a Farm*, Pelican, 2000.
- Bial, Raymond, *The Super Soybean*, Albert, Whitman and Company, 2007.
- Fussell, Betty, *The Story of Corn*, UNM, 2004.
- Harvard, Christian, *Face to Face With the Chicken*, Charlesbridge, 2003.
- Hughes, Meredith Sayles, *Hard to Crack: Nut Trees*, Lerner, 2001.
- Kindschi, Tara, *4-H Guide to Raising Chickens*, Voyageur, 2010.
- Miller, Sarah Swan, *Goats*, Children's, 2001.
- Older, Jules, and Lyn Severance, *Cow*, Charlesbridge, 1998.
- Older, Jules, and Lyn Severance, *Pig*, Charlesbridge, 2004.
- Peterson, Cris, *Amazing Grazing*, Boyd Mills, 2002.
- Pukite, John, *A Field Guide to Cows*, Scholastic, 1998.
- Pukite, John, *A Field Guide to Pigs*, Globe Pequot, 1999.

USDA Choose My Plate Guidelines can be found online at this web address:  
<http://www.choosemy-plate.gov/>

# Agriculture Feeds Oklahoma

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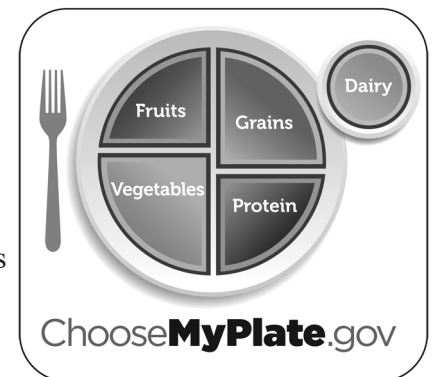
Agriculture feeds Oklahoma. Anywhere you live in our state, you are surrounded by farms producing food for you to eat. In the many cow/calf operations, calves graze on abundant Oklahoma grass until they weigh enough to be sold to beef producers or feedlots. Hogs become bacon, pork chops and other cuts of pork. Sheep and lambs provide lamb chops or roast, while goats provide meat and milk. Dairy cows give us milk, cheese, yogurt, ice cream and more. Chickens give us meat and eggs. Hay, barley, oats, sorghum and corn grow in Oklahoma fields to feed the farm animals.

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Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.

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In the first column, make a list of all the food you ate in a day. In the second column, list the kinds of agriculture used to make the food (dairy farming, beef production, vegetable farming, crop farming, etc.)

FOODS I ATE	KIND OF AGRICULTURE USED TO MAKE THE FOOD I ATE