

AGRICULTURE COUNTS

SUBJECTS: Language Arts, Social Studies, Math, Science

STUDENT SKILL: (LA) The student will write a reflective paper that expresses the individual's insight into conditions or situations; The student will use prior experience and context to analyze and explain multiple meaning words. (SS)The student will interpret information from a broad selection of research materials. (Math) The student will collect, organize and interpret data to solve problems. (Science)The student will interpret data tables.

OBJECTIVE: The student will prewrite, draft, write, revise and edit an essay on the topic "Agriculture Counts."

BACKGROUND

Can you count the ways agriculture touches your life? When you wake up in the morning, you're lying on cotton sheets. You swing your feet onto a wood floor, a rug made from the wool of a sheep, or flooring made from linseed or soybean oil. The soap you use in the shower contains tallow (a byproduct of the beef industry), or cottonseed oil or lanolin (a kind of oil from the wool of sheep). The towel you dry off with and the jeans and T-shirt you put on are made from cotton. You've already used dozens of agricultural products, and you haven't even started eating.

You get on your bike and ride on tires reinforced with cotton fibers. When you get to the classroom, you open a book held together with glue made from the hide and hair of a cow or a pig and printed with printer's ink made from soybeans.

After school you might play baseball with a wooden bat and a glove made from the hide of a cow. Your baseball is made from wool yarn wound around a cork or rubber core and covered with the hide of a cow.

Agriculture feeds us, clothes us, shelters us, helps us get around, helps us play and keeps us clean and well-groomed. It cares for us when we are sick or injured, too. Insulin for diabetics is made from a chemical produced by the pancreas in swine and beef animals, and pig skin is used in skin grafts for burn victims. Milk proteins help make bandaids stick.

And all of these products are made from raw materials

[Materials](#)
dictionaries

VOCABULARY

count
agriculture
tallow
linseed oil
soybean
lanolin
product
commodity
insulin
diabetic
pancreas
skin graft
raw materials
economy
production

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Oklahoma Ag in the Classroom
Oklahoma 4-H Programs
205 4-H Youth Development
Oklahoma State University
Stillwater, OK 74078
405-744-8889
<http://www.agclassroom.org/ok>



produced right here in Oklahoma. Agriculture is second only to the oil and gas industry in its contribution to our economy.

Oklahoma ranks number one nationally in the production of rye, number three in the production of winter wheat and number five in the production of cattle and calves and pecans. In most years the population of cattle and calves in Oklahoma is over 5 million, contributing nearly \$2 billion to our state's economy. We had 2.3 million hogs and processed 1.2 billion pounds of pork in 2001. Oklahoma sheep growers sheared 55,000 sheep and produced 275,000 pounds of wool, valued at about \$2 million.

Oklahoma has 44 million acres of land. Over 10.5 million acres of that is planted in crops. In 2000 6.1 million acres were planted in winter wheat, yielding 143 million bushels of wheat and adding \$344 million to the Oklahoma economy. Our pecan crop added \$7 million to the economy and our watermelons and peaches each brought in about \$5 million each. Oklahoma cotton fields produce 122,000 bales of cotton, and the forestry industry plants over 40,000 acres of new trees every year.

You can count on Oklahoma agriculture—to keep on feeding and clothing us—and for so much more.

ACTIVITY

1. Ask students what it means to say that something “counts.” Accept all reasonable answers and examples. Have students look up the word in a dictionary and take turns reading the different meanings. Which meaning applies to this usage of the word? Ask students to list some other words that express similar meaning, e.g., “is significant,” “is important.”
2. Write the phrase “You can count on me.” on the chalkboard. What does the word “count” mean in the context of that sentence? Have students find the appropriate dictionary definition. What are some synonyms for “count on” in that instance. (depend, rely, trust)
3. Share background information, then lead a discussion in which students list all the ways they count on agricultural products in a typical day and why agriculture counts in their lives.
4. Hand out copies of chart B, and divide students into brainstorming groups to prepare for writing essays on the topic “Agriculture Counts.”
5. Review the rules for essay writing in Chart D, and have students write 300- 500-word essays on the topic “Agriculture Counts.”

ADDITIONAL ACTIVITIES

1. Have students answer the questions at the bottom of Chart A, "2002 Oklahoma Agricultural Commodities" chart. Have students design graphs representing the statistics on the chart.
2. Have students check the labels of products in their homes for references to Oklahoma agricultural commodities as ingredients. Make a class list of their findings.
3. Have each student select one of the products listed on Chart B and research to find as much information as possible about how the product was made, beginning with raw materials.
4. Have students figure percentages based on numbers in the background material, e.g., "What percentage of Oklahoma land is planted in crops if we have 44 million acres of land and 10.5 million is planted in crops?" "What percentage of crop land is planted in winter wheat if we have 6.1 million acres planted in winter wheat?"



Name _____

Agriculture Counts

A

2002 Top Oklahoma Agricultural Commodities

Oklahoma Rank	National Rank	Commodity	2002 Cash Receipts (in millions)
1	5	Cattle & Calves	\$1,872
2	15	Poultry & Eggs	\$414
3	8	Hogs & Pigs	\$378
4	3	Winter Wheat	\$314
5	9	Forest Products	\$200
6	29	Milk Products	\$173
7	19	All Hay	\$159
8	N/A	Greenhouse/Nursery	\$124
9	12	Cotton Lint & Seed	\$42
10	26	Corn	\$41
11	6	Grain Sorghum	\$32
12	23	Soybeans	\$31
13	12	Horses	\$30
14	6	Peanuts	\$27
15	N/A	Sod Production	\$22
16	32	Vegetables	\$19
17	5	Pecans	\$5
18	12	Watermelons	\$5
19	1	Rye	\$4
20	17	Peaches	\$3
21	28	Sheep & Wool	\$2

1. Add the correct number of zeroes to the 2002 cash receipts to show them as millions.

2. Which Oklahoma commodity is ranked number 8 nationally? _____
Which is ranked number 1? _____

3. What are Oklahoma's top five crops?



Agriculture Counts

B

Agricultural Products made from Oklahoma Commodities

Cattle & Calves	hamburgers, glue for book binding, chalk, leather for ball gloves, baseballs, basketballs, shoes, chewing gum, crayons, piano keys
Hogs & Pigs	pepperoni pizza, medicine, lipstick, gloves, buttons, makeup, chalk, crayons, flooring, dishes, hair brushes, sport gloves
Poultry & Eggs	omelets, chicken strips, turkey, pillows, bedding, cowboy boots, belts, shampoo, cakes, cookies, disposable diapers
Winter Wheat	bread, cookies, cake, breakfast cereal, pizza, building materials, baby powder, soccer balls, biodegradable report cards
Milk Production	ice cream, cheese, adhesive used in bandaids, medicine, yogurt, pudding, chocolate milk, nachos
Forest Products	pencils, paper, toilet paper, furniture, building materials, books, photo film, newspaper, ping pong balls, toilet seats, guitars
Peanuts	peanut butter, candy bars, cooking oil, wallboard, kitty litter, paper, bleach, shaving cream, face cream, soap, flooring, makeup
Cotton Lint & Seed	jeans, T-shirts, tires, airplane seats, hot air balloons, fireworks, mattresses, circus tents, underwear, socks, sheets, towels,
Corn	corn chips, tacos, batteries, feed for livestock, disposable diapers, floor mats, soft drinks
Soybeans	soy sauce, candy bars, vegetable oil, printer's ink, tires, car parts, makeup, crayons, flooring
Sheep & Wool	sweaters, baseballs, lotions, carpet, hats, instrument strings, dice, candles, wallpaper, detergents



Agriculture Counts

C

VOCABULARY

count—To have importance; To rely on or depend on.

agriculture—The science, art, and business of cultivating soil, producing crops, and raising livestock; farming.

tallow—A mixture of the whitish, tasteless solid or hard fat obtained from parts of the bodies of cattle, sheep or horses and used in edibles or to make candles, leather dressing, soap and lubricants.

linseed oil— A yellowish oil extracted from the seeds of flax and used as a drying oil in paints and varnishes and in linoleum, printing inks and synthetic resins.

soybean—A leguminous Asiatic plant, widely cultivated for forage and soil improvement and for its nutritious edible seeds.

lanolin—A yellowish-white fatty substance obtained from wool and used in soaps, cosmetics, and ointments.

product—Something produced by human or mechanical effort or by a natural process.

commodity—An article of trade or commerce, especially an agricultural or mining product that can be processed and resold.

insulin—A preparation derived from the pancreas of a pig or the ox for use in the medical treatment of diabetes. Insulin is also produced in the pancreas of humans.

diabetic—A disease caused by a disorder of the pituitary gland.

pancreas—A long, soft, irregularly shaped gland lying behind the stomach that secretes pancreatic juices and produces insulin that is taken up by the blood stream.

skin graft—To surgically transplant or implant skin into a bodily part to compensate for a defect.

raw materials—Unprocessed natural products used in manufacture.

economy—The management of the resources of a country, community or business.

production—The act or process of creating something by mental or physical effort.

Give your essay a hand



OPENING PARAGRAPH

The first paragraph introduces the reader to the topic of the essay ("Agriculture Counts"). This is where the writer grabs the reader's attention. After introducing the topic, the writer also introduces three subtopics that support the thesis statement. Between this paragraph and all paragraphs of the essay, there needs to be some kind of a transition word, phrase, or sentence.

SUPPORTING PARAGRAPHS

The second through fourth paragraphs restate the subtopics, and provide three or more supporting sentences for each subtopic.

CONCLUDING PARAGRAPH

The fifth and last paragraph restates the main thesis idea and reminds the reader of the three main supporting ideas that were developed. All of these paragraphs are important.

