

Red Dirt Groundbreakers

Objective

Students will read about various people throughout the history of Oklahoma who laid the groundwork for the success of agriculture in Oklahoma.

Background

No one knows the name of the first person to clear a patch of ground for planting in the land we call Oklahoma. By the late 13th Century farming had grown from small patches of native plants (sunflowers, amaranth, etc.) to a well-coordinated system of community fields. The ancestors of the Caddo and Wichita grew beans, squash and corn along river banks. Plains Indians came later, using fire to clear grazing areas for the huge bison herds.

The Five Civilized Tribes brought sophisticated farming and ranching traditions that were disrupted by the Civil War. After the war returning soldiers became cowboys, and the cattle industry grew. Unoccupied lands were opened to pioneer farmers, and when Oklahoma became a state, agriculture was a central concern. Critics called the authors of the Oklahoma constitution “corn field lawyers” because of the importance they attached to agriculture in the constitution.

Oklahoma’s groundbreakers were men and women of many cultures. Some worked the land; some were promoters who encouraged others to migrate here and farm. There were farmers, cattlemen, businessmen, scientists, inventors, educators and entertainers. In the pages that follow are the stories of only a few.

Language Arts: Read, Discuss, Research, Write

1. Read and discuss the stories of Wilson N. Jones and Henryetta Vann. Both of them farmed in Indian Territory before statehood.
—Students will use a Venn diagram to compare and contrast their lives.
2. Read and discuss the story of Lucille Mulhall.
—Students will use an online search engine or library resources to learn more about the Miller Brothers’ 101 ranch and other Oklahoma rodeo stars, including Bill Pickett and Jim Shoulders.
3. Students will use an internet search engine to find a list of Oklahoma Centennial Farms in your county.
—Select one farm and find additional information. (What was produced? When was the farm originated and by whom? Is the farm still with the original family? What changes in agriculture have occurred over the years: growth, farming ways, products, man power, etc? Where is the farm located?)
—Students will present the information to the class in a creative way—as a news report, a summary, a skit, etc.

Oklahoma C3 Standards

GRADE 3

Social Studies PALS—

1.A.1,2,3, B.4,5, C.7,8;
2.A.2,3, B.6, C.7,8, D.10;
3.A.2, B.4

Social Studies Content- 1.2, 3; 2.1,2,3; 3.1A,C, 2A,B,C;

4.1,2,3,6,7,8,9,10,11,12
Science Process—3.1,3; 4.3

Life Science—2.1

Earth Science—3.1

COMMON CORE

Language Arts—

3.RL.1,3,4,5,10; 3.RI.6,10;
3.RF.3ac,4c;

3.W.1,2,3,4,7,8; 3.L.3,4,5b;
3.SL.1,2,3,4,5,6

Math Process—

MP.1,2,3,4,5,6,8

Math Content—

3.Oa.1,2,4,8; 3.NBT.3;
3.Md1

GRADE 4

Social Studies PALS—

1.A.1,2,3, B.4,5; 2.A.2,3,
B.4,6,7,8,9, C.10; 3.A.2, B.4

Social Studies Content—

1.1A, 2B,D,E,4,5; 2.1
Science Process—3.1; 4.4;

5.1,3,4

Life Science—3.1,2

COMMON CORE

Language Arts— 4.RL.4,7,10;

4.RI.1,2,3,4,7,9,10; 4.RF.4;
4.W.4,5,7,9; 4.L.1,3,4,5,6;

4.SL.1,3,4,5

Math Process—

MP.1,2,3,4,5,6,8

Math Content—4.OA.2,3;

4.MD.1,2

GRADE 5

Science Process—3.1; 4.4;
5.1,3,4

Physical Science—1.1

Life Science—2.1,2

Earth Science—1.1

COMMON CORE

Language Arts—5.RI.1,2,4,7,9;
5.W.1,2,3,4,7,8,9,10; 5.RF.3,4;
5.L.3,4,5,6; 5.SL.1,2,3,4,6

Math Process—MP.1,2,3,4,5,6,8

Math Content—NBT.7

GRADE 6

Social Studies PALS—1.A.1,
B.4, C.7; 2.A.2abcdef, B.4,5,6,7,
C10

Social Studies Content—2.1C;
3.1A, 3; 4.1,2,3,4,5; 5.2A, 3

Science Process—2.2; 3.1;
4.5; 5.2,3

Physical Science—1.1

Life Science—4.1,2

COMMON CORE

Language Arts—6.RL.2,3,4,10;
6.RI.1,2,4,7,10; 6.W.2,3,4,7,8,9;
6.L.3,4,6; 6.SL.1,3,4,6; 6.V.3

GRADE 7

Science Process—3.1;
4.1,5; 5.2,3

Physical Science—1.1

COMMON CORE

Language Arts—6.RL.2,3,4,10;
6.RI.1,2,4,7,10; 6.W.2,3,4,7,8,9;
6.L.3,4,6; 6.SL.1,3,4,6; 6.V.3

GRADE 8

Science Process—3.1; 4.1,5;
5.2,3

Physical Science—1.2

Life Science—3.2

COMMON CORE

Language Arts—6.RL.2,3,4,10;
6.RI.1,2,4,7,10; 6.W.2,3,4,7,8,9;
6.L.3,4,6; 6.SL.1,3,4,6; 6.V.3

- If possible students will visit the farm, take pictures and talk to the current owners.
4. Students will use one of the historical biographies from this booklet to write a news article.
 - Keep your articles brief. (No more than three short paragraphs.)
 - Read articles in the newspaper for hints on first, second, and third paragraph information.
 - Include the five Ws: “Who?” “What?” “When?” “Where?” and “Why?”
 5. Read and discuss the stories of Fred Hoeme and Joseph Danne. Students will work in groups and brainstorm to create a new agricultural product, tool or machine. Students will present their ideas in booklet form.
 - Cut a piece of plain white paper into a 12 x 12 inch square.
 - Fold, crease, and unfold the square on each diagonal.
 - Fold one corner to the center point (where diagonal crease lines cross) of the square, and crease the fold.
 - Continue folding the other three corners to the center, and crease the fold.
 - The paper should now be in the shape of a square, with open corners to the center.
 - With the square facing you on a desk or table top, print your name and the name of the object to be described on the top flap.
 - Write one adjective to describe your object on each of the other flaps.
 - On the inside of your booklet, in the square section, complete a descriptive summary about your product, tool or machine.
 - On the inside flaps complete an illustration from the entries in your summary.
 6. Students will read and discuss the story about Samuel Lloyd Noble.
 - Students will use an online search engine to find information about the Samuel Roberts Noble Foundation.
 - Students will select one area from the three listed below and find what research is being done in that area.
 - Ag Division
 - Forage Improvement
 - Plant Biology
 - Students will present the information as a summary or power point presentation.
 7. Samuel Lloyd Noble and Roy J. Turner were both oil men, in addition to their agricultural activities.
 - Students will use a Venn diagram to compare their agricultural activities.
 8. On a separate sheet of paper, students will create a grid with enough space in each grid for recording information about the groundbreakers presented in this booklet.
 - Students will list the groundbreakers down the left side of the grid, using one space for each name.
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- Across the top, students will list areas for comparison. Some examples might be:
 - Nationality or culture
 - Where the person lived in Oklahoma
 - Area of agricultural work or contributions to agriculture
 - Other interesting facts
 - Historical era
 - Students will complete the grid by finding information from the bios presented and/or using the library or internet for research. Look for commonalities and differences.
 - Students will compare information with others within a small group or discuss as a class.
9. Using the information from the groundbreakers included in this booklet, students will place at least 10 events on a timeline.
- Students will write a one-sentence summary at the bottom of the page for each event.
10. A groundbreaker is someone who breaks new ground to plant crops or a garden. The dictionary defines it as someone who does something in a new way. Students will identify the new things these groundbreakers did in Oklahoma agriculture. Students will:
- Divide each word into syllables.
 - Write a synonym or antonym for at least 10 of the words.
 - Classify the words according to parts of speech.
 - Scramble the words and give them to a classmate to unscramble.
 - Write newspaper headlines using at least 10 of the words.
11. Students will look at primary source information from the library or computer database to find details about wanted posters in the late 1800s to early 1900s.
- Students will create wanted posters, using the information from the bios in the booklet.
 - Students will use calligraphy or other bold fancy lettering to add details to the posters.
 - Display the posters in the classroom or in the hallway.
 - Students will compare the information given on the posters.
 - Discuss how a wanted poster from today would differ from the posters created by students?
12. Students will use online or library resources or interviews to research an agriculturalist in Oklahoma, past or present.
- Students will pay attention to details, since they are going to pretend to be this person.
 - Students will write 3-5 questions on a notepad that they would like to ask about another person, leaving space for answers between the questions.
 - Students will pair up to conduct interviews.
 - Students will have 1-2 minutes to interview their partner using the prewritten questions.
 - At the end of the 2 minutes, students will reverse roles.
 - After the interviews are complete, students will discuss what they learned from the interviews as a class.
 - Each student will introduce the person interviewed and tell 1–2 interesting things about that person.
 - Students will discuss the broad range of people, common traits and the most interesting trait or story?

Math Activity: Put on Your Walking Shoes

Read and discuss the stories of William Bentley and Bermuda John Fields. Early county Extension agents travelled by train, horse, horse and buggy or by foot to the farms where they provided advice and demonstrated the latest agricultural techniques. Students will pretend they are early county agriculture extension agents and calculate how long it would take to get from the county seat of your county to various locations within the county, travelling by foot.

1. First calculate how long it takes to walk a mile or some other distance, or use a pedometer to determine the number of steps.
2. Identify the county seat of your county.
3. Select a town in your county.
4. Use a road map or online map tool to determine the distance between the county seat and the town you have selected.
5. How long would it take to walk from the county seat to the town you have selected? How many steps?

Extra Reading

Cooper, Michael, *Dust to Eat: Drought and Depression in the 1930s*, Clarion, 2005.

Thomas, Joyce Carol, and Floyd Cooper, *I Have Heard of a Land*, HarperCollins, 2000.

Townsend, Una Belle, and emile enriquez, *The Oklahoma Land Run*, Pelican, 2008.

adapted—changed so as to fit a new or specific use or situation

allotment—a thing or amount assigned to somebody or something

amaranth—any of a large genus of coarse annual herbs including forms cultivated as food crops and various pigweeds

baron—a man who possesses great power or influence in some field of activity

bred—produces (plants or animals) by sexual reproduction

chatelaine—a woman who owned or controlled a castle or other large house; a woman who is the head of a large fashionable household

chisel—a metal tool with a cutting edge at the end of a blade

commercial—something produced with the primary objective of making money

communal—used or owned by all members of a group or community

consolidate—to join together into one whole

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

cultivation—the planting, growing, and harvesting of crops or plants, or the preparation of land for this purpose

dam—the female parent especially of a domestic animal

descendant—proceeding from an ancestor or source

diversification—producing variety

exhibition—a public showing

erosion—a wearing away by the action of water, wind, or glacial ice

geneticist—a person who specializes in genetics, a branch of biology that deals with the inherited traits and variation of organisms

gin—a machine invented by Eli Whitney to separate cotton from its seeds

groundbreaker—someone who

makes changes or does something in a new way; a pioneer

Hereford—any of an English breed of hardy red cattle with white faces that are widely raised in the western U.S. for beef

homesteading—settling and farming land, especially under the terms of the Homestead act

hospitable—friendly, welcoming, and generous to guests or strangers

hybrid—an offspring of parents with different genes especially when of different races, breeds, species, or genera

immigrant—relating to those who have come to settle in another country

inheritance—the act of receiving something by genetic transmission

lint—the fibers that surround unprocessed cotton seeds

livestock—farm animals kept for use and profit

local—characteristic of, or only found in, a particular area; relating to, situated in, or providing a service for a particular area, especially the area near home or work.

manufacture—to make into a product suitable for use

market—(noun) a meeting together of people to buy and sell

market—(verb) to offer something for sale or sell something in a market

mercantile—used for trade or by merchants, or characteristic of merchants or trading

migration—the act or process of moving from one region or country to another

millet—a fast-growing cereal plant native to warm regions and used in flour, alcoholic drinks, birdseed, and fodder

milling—grinding grain into flour

national—relating to, belonging to, representing, or affecting a nation, especially a nation as a whole

rather than a part of it or section of its territory

neutral—belonging to, favoring, or assisting no side; possessing no distinctive quality or revealing no attitude or feeling

philanthropy—a spirit of goodwill toward all people especially when expressed in active and generous efforts to help others

prosperity—the condition of enjoying wealth, success, or good fortune

residue—whatever remains after a part is taken, set apart, or lost or after the completion of a process

retinue—a group of people who travel with and attend an important person

royalties—shares of a product or profit (as of an oil well) claimed by the owner for allowing another to use the property

sire—the male parent of an animal and especially of a domestic animal

stable—a building in which domestic animals are sheltered and fed

strain—a group of plants or animals that look alike but have characteristics (as the ability to resist disease) that make them slightly different

subsistence—the condition of being or managing to stay alive, especially when there is barely enough food or money for survival

stabilize—prevent from easily changing or moving

stewardship—the careful and responsible management of something entrusted to one's care

union (labor union)—an organization of workers formed to protect the rights and advance the interests of its members concerning wages, benefits, and working conditions

yearling—an animal between one and two years of age, e.g. a calf or deer

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HENRIETTA VANN: A CHEROKEE CHATELAINE

When the Europeans first encountered the Five Civilized Tribes in the eastern part of the continent, they were living in agricultural villages. Men were hunters and warriors, and they cleared land. Women cultivated fields and raised children. Women held very high status in these communities. They owned virtually all of the family possessions, including the home, the fields, and the crops.

Women continued to play an important role in managing farm operations after the tribes came to Indian Territory. They brought their knowledge to start farms in the new land. Henrietta Vann was the wife of a prominent Cherokee, Judge John Vann. In the *Chronicles of Oklahoma* Carolyn Thomas Foreman provides a glimpse into her life on her farm near Muskogee.

In a big house built of oak logs this Cherokee woman ruled her household like a real chatelaine. On the rich land were grown corn, oats, millet and some wheat, tobacco in a limited quantity, and cotton. There being no gins the cotton seeds had to be removed by hand before the lint could be carded and spun. There were peaches, apples, pears, plums, berries, grapes and melons grown on this farm.... Many vegetables were grown and while some of them were stored in the cellar, many were dried for winter consumption. Fruits were preserved with sugar and quantities were dried but no fruits or vegetables were canned.... Sheep were raised on the farm and their wool was utilized to spin cloth and for yarn from which socks and stockings were knit.... In winter... hogs were butchered for making sausage, hams and bacon.... When cattle were butchered parts of the animal were dried and proved very palatable when fresh meat was not available.

Henryetta managed the farm, but much of the work was done by slaves. The Cherokees held slaves and fought with the Confederacy during the Civil War. In retaliation, the Union troops burned the farms of many Cherokees, including that of Henrietta Vann. Hundreds of Cherokees headed south by wagon and ox cart to wait out the war in Texas. After the war they returned to their farms in Indian Territory.

WILSON N. JONES: CHOCTAW CATTLE BARON

Although some members of the Choctaw tribe held slaves and sided with the South, Wilson N. Jones, remained neutral during the Civil War. At that time, Choctaw land was communal, which meant it belonged to all the Choctaws. Any member of the tribe could use it. Jones worked hard during the war and saved \$500, enough to set himself up with a farm on Shawnee Creek in Blue County (now Bryan County). Later he opened a mercantile business and got his start in the cattle business by accepting livestock in exchange for merchandise. By 1890 Jones was one of the wealthiest men in the Territory. He held 17,000 acres of Choctaw land. He farmed 550 acres and grazed cattle on the rest. He was known as the “Indian Cattle King of the Territory.” In addition to his cattle business and store, Jones had a cotton gin and investments in the coal business. The employees on Jones’ ranch were mostly full blood Indians. He was very popular with his employees.

Because individual tribal members could not hold title to tribal land, much of Indian Territory was a vast open range under constant dispute by armed competitors. Jones was one of a handful of “cattle barons” in Indian Territory who made and enforced his own regulations, surrounded by an “armed retinue,” much like the characters in a western movie.

In 1892, Wilson N. Jones was elected principal chief of the Choctaw Nation. He fought to oppose the allotment of tribal land to individual tribal members because it would destroy the open range that had contributed to his success. Jones lost the fight in 1897 when the Choctaw and Chickasaw Nations signed an agreement with the federal government to divide their land among all tribal members.

JESSE CHISHOLM AND THE CHISHOLM TRAIL

Jesse Chisholm was an Indian trader, guide, and interpreter. He is famous for the Chisholm Trail, which ranchers used to drive their cattle from Texas to eastern markets in Kansas. Before the beginning of the Civil War, Chisholm had built several trading posts in what is now western Oklahoma. He never drove cattle on the trail named for him.

Chisholm's mother was a Cherokee. In the late 1820s he moved with her to the Cherokee Nation and settled near Fort Gibson. He became a trader and took trade goods west and south into Plains Indian country. He was fluent in 14 dialects, established small trading posts, and was soon in demand as a guide and interpreter. He was trusted by all for his fairness and neutrality.

Chisholm left the Cherokee Nation and settled in the Creek Nation, in what is now Hughes County. At various times he had trading posts on the edge of the Great Plains, including one near the site of Lexington (in what is now Cleveland County) and one at Council Grove (in Bethany, near what is now Oklahoma City). Much of his trading was done by taking wagons and going to the villages of the Comanche and other Great Plains tribes. At various times he rescued captive children and youths from the Comanches and Kiowas. He adopted them and reared them with his own family, treating them just as he did his own children.

In 1865, Chisholm and James R. Mead loaded a train of wagons at Fort Leavenworth, Kansas, and established a trading post at Council Grove on the North Canadian River, near the site of the Overholser Lake Dam in present Oklahoma City. Many of his Wichita friends followed. Their route became the Chisholm Trail, which connected Texas ranches with markets on the railroad in Kansas.

Chisholm died of food poisoning after eating rancid bear meat at Left Hand Spring, near the site of present Geary, on April 4, 1868.

LUCILLE MULHALL: THE FIRST COWGIRL

As a small child, Lucille Mulhall rode her pony over her father's large ranch in Oklahoma Territory. She learned to rope and tie a steer and to shoot a rifle. Her teachers were the men who rode herd in the cattle drives of the Old West.

By the time she was seven, Lucille had her own herd of cattle. Her father had promised she could have all the yearlings she could rope and brand herself. He soon had to get out of this bargain because Lucille had claimed too many calves.

Lucille got her start in show business as the star of her father's "Congress of Rough Riders and Ropers" at the 1899 St. Louis World's Fair. The show also featured the young Will Rogers.

After she threw and tied a steer at an El Paso roping, the rodeo crowd went wild and swarmed over her, trying to tear her clothes to see if she was really a girl. Her brother had to rescue her.

She was among the first women to compete in roping and riding events against men and earned such titles as "Champion Lady Steer Roper of the World" at the Winnipeg Stampede. She starred in Mulhall's Wild West, the Miller Brothers' 101 Ranch Wild West show, and in vaudeville. In 1913 she formed her own troupe. In 1916 she produced her own rodeo, Lucille Mulhall's Roundup.

Lucille Mulhall's popularity was due to her skill, the result of perfect timing with her rope, unusual balance on her horse, and her small size and ladylike behavior. She was inducted into the rodeo Hall of Fame in 1975 and National Cowgirl Hall of Fame in 1977.

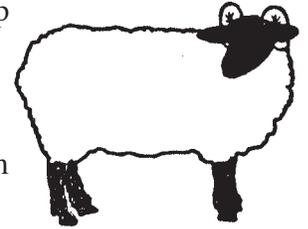
Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.

JUAN CRUZ LUJAN AND THE PASTORES

In the mid-to-late 19th Century sheep herders, or *pastores*, from New Mexico pastured their flocks in the western section of present Cimarron County. The area offered vast, continuous grasslands in the watersheds of the Cimarron, Beaver (North Canadian), and South Canadian Rivers. Playa lakes also dotted the landscape. The Santa Fe-Missouri trade route, which developed in the 1820s, crossed through the area. This connection provided New Mexicans with a market for wool and woven goods. In addition, breeding-stock sheep and sheep destined for slaughterhouses were driven from central New Mexico for sale in Kansas and Nebraska. Because of these activities, in the last half of the 19th Century numerous Hispanic communities, or *placitas*, developed near the trail's path through Cimarron county.

After spring lambing in east-central New Mexico, the *pastor*, or sheep herder, moved the herd eastward into the grasslands. In summer and autumn the flock covered a wide area through the grassy plains around the Cimarron and Canadian rivers and returned to the mountain valleys for the winter. Sheep needed grass but could survive without much water. The *pastores* established various “base camps,” often building small houses and corrals of native stone, when available.

In 1885 Juan Cruz Lujan turned a sheep camp on Corrumpa Creek into his own ranch. He was joined by his brothers Francisco, Lorenzo, and Alejandro, who came from Mora County, New Mexico. The Lujan ranch had a flat-roofed adobe house, a chapel, and beehive-shaped baking ovens, called *hornos*.



The descendants of the *pastores* continued to live and ranch in the Oklahoma Panhandle. The 1900 and 1910 US censuses recorded sizeable concentrations of Hispanic stock raisers, including the Lujans, in Harrison Township of Cimarron County. In 1899 a widely circulated newspaper report asserted that a “colony of three hundred New Mexicans” were raising sheep there, and approximately 125 individuals (25 surnames) are represented in the 1900 census. As late as 1920 and 1930 Juan Cruz Lujan still appeared in the census as a sheep rancher. He died in Cimarron County in 1943.

The Hispanic presence in Cimarron County is reflected in local place names that include Carrizo, Castañeda (at Wolf Mountain, on the Santa Fe Trail), Cimarron, Delfin, Hidalgo, and Nieto Junction. Geographical designations include Corrumpa, Cienquilla, Tesesquite, Carrizozo, and Carrizo creeks, and Trujillo Springs. In the 20th Century some of the environment that served as pasture in the four-state area was preserved as the Rita Blanca National Grassland in Texas and Oklahoma, the Kiowa National Grassland in New Mexico, and the Comanche National Grassland in Kansas.

Source: Everett, Diana, “Pastores,” *Encyclopedia of Oklahoma History and Culture*, Oklahoma Historical Society: <http://digital.library.okstate.edu/encyclopedia/entries/P/Pa029.html>

EDWARD P. MCCABE AND THE ALL-BLACK TOWNS

African Americans first came to Indian Territory as slaves owned by members of the Five Civilized Tribes. The next Black migrations were the result of organized efforts by people like Edward P. McCabe. McCabe was an African American businessman who helped found the all-Black town of Langston and later the Colored Agricultural and Normal University (now Langston University).

McCabe and a partner began publication of the *Langston City Herald* in 1890. Copies of the paper were circulated throughout the South. Each issue included homesteading instructions to help immigrants understand the procedure before they arrived in Oklahoma Territory. McCabe advised homesteaders to come with enough money to support themselves for one year.

As a result of the advertisements Langston's population swelled to nearly 2,000 people in the weeks before the 1891 Sac and Fox opening. Approximately 1500 African Americans made the run from Langston. An estimated 1,000 secured land.

The first crops grown by African American homesteaders were subsistence crops of corn, sweet potatoes, turnips, peas, melons and beans. Black farmers also raised hogs for pork. They planted large orchards of peach, plum, apricot and apple trees. As they became more established, Black farmers produced enough eggs, butter, fruits and vegetables to sell to grocers in nearby towns. Peaches grew well in the area around Langston, and some Black farmers took advantage of new markets, both local and national. Other commercial crops were wheat, oats, hay and cow peas.

Edward P. McCabe went on to have some success in the politics of the new state, but he did not remain in Oklahoma. He sold his holdings and left for Chicago in 1908

WILLIAM BENTLEY AND THE AG DEMONSTRATION TRAINS

Cotton was Oklahoma's number one crop at the time of statehood, just as it was throughout the South. A few years earlier the cotton crop had been threatened by an invasion of the boll weevil, an insect pest from Mexico that destroyed crops in Texas, Oklahoma and Arkansas. Because cotton was so important to the US economy, the US Congress set aside money to investigate ways to stop the boll weevil. The US Department of Agriculture appointed Seamon Knapp to be in charge of the investigation. Knapp believed farmers needed to change the way they farmed. He thought the best way to convince them was through farming demonstrations.

One of the farmers Knapp hired to conduct these demonstrations was William Bentley, a successful fruit farmer from Wichita Falls, Texas. Bentley had used diversification and careful management to become one of the most successful farmers in his county. Agricultural demonstration trains carried Bentley and other demonstrators, who conducted meetings in the leading towns along the railroad line. The demonstrators organized institutes at each stop and gave lectures on a variety of farm topics. This was the first of what was to become the Extension Service.

As one of the first six Extension agents in the nation, Bentley spent long days riding from farm to farm signing up farmers to demonstrate the techniques he was teaching. The first programs consisted of instruction in seed purity, deep plowing, frequent shallow cultivation and growing of all home supplies.

Demonstration trains were part of Extension work for the next 10 years. In 1907, Bentley was appointed to extend his work into Oklahoma. He retired 25 years later as the first director of the Oklahoma Extension Service. Along the way he and his agents also started 4-H clubs in Oklahoma..

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.

BERMUDA JOHN FIELDS

One of the first acts of the legislature of the Oklahoma Territory was to establish an agricultural college in Stillwater. Iowa-born John Fields was one of the first two assistant professors. In 1899 he was appointed first director of the Oklahoma agricultural experiment Station. The purpose of the experiment Station was to conduct experiments to help Oklahoma farmers.

Fields was a very good speaker. For the next several years he became the most familiar figure in Oklahoma associated with agriculture. He was one of the authors of a territorial law passed in 1905 making the teaching of agriculture in the public schools mandatory. The next year the Oklahoma Constitutional Convention included a provision in the new constitution for the compulsory “teaching of the elements of agriculture, horticulture, stock feeding and domestic science.

Fields was responsible for popularizing and distributing Bermuda grass in the state. This all-purpose pasture and lawn grass made its appearance in Oklahoma around the turn of the century. Fields gathered the available information on the grass and planted it on the college farm in 1900. He sodded the campus with it, pastured livestock on it and published an experiment station bulletin on the subject. As late as 1903, some farmers still believed the plant to be harmful to livestock. To overcome their worries, Fields raised and shipped Bermuda grass roots to all who would pay the shipping costs. He was very happy when important citizens such as former governor Thompson B. Ferguson of Watonga, requested Bermuda grass for their lawns. The giveaway brought the grass and Fields a great deal of publicity. By June, 1906, roots had been shipped to more than 600 farmers, and some were calling Fields “Bermuda John.”

In 1906 Fields resigned from the experiment station to become editor of the *Oklahoma Farm Journal*. He ran for governor in 1922 but was defeated by his opponent, John Walton.

JOHN KROUTIL: YUKON MILLS

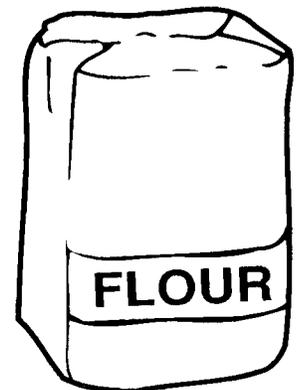
John Kroutil immigrated from Czechoslovakia with his parents in 1881. The family first settled in Nebraska before coming to Oklahoma Territory in 1890. John and his brother Frank purchased the Yukon Mill and Grain Company in 1902.

Other Czechs had migrated to the young territory in the land runs of the 1890s, north from Texas and south from Nebraska and Kansas. Because many had been wheat farmers in their native country, they grew wheat in the new land and were happy to take their grain to the Kroutil brothers, where they could do business in their native tongue.

Milling was an important industry in the early years of statehood. In 1910 the flour milling industry was by far the most productive. There were 295 plants and 842 workers. Total sales were \$19 million of the state’s \$53 million industrial output. Yukon Mill and Grain Company was among the most successful, along with Shawnee Mills, owned by J. Lloyd Ford.

John Kroutil served as president of the Yukon Mill and Grain Company until his death in 1954. In 1912, he and his brother opened the Yukon National Bank. John Kroutil also served as president of the Yukon Electric Company, which was formed in 1907 after a steam-powered electric generating plant was built near the mill.

For his philanthropy and business leadership Kroutil was inducted into the Oklahoma Hall of Fame in 1933. On June 12, 1954, he died of a heart attack on his farm near Piedmont, Oklahoma.



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.

JOHN SIMPSON: A RADICAL VOICE FOR FARMERS

The Farmers' Union movement started in Texas in 1902 and quickly moved into Oklahoma and Indian Territories. Some of the goals of the union were to help farmers get fairness in mortgage and credit practices, to help them get fair prices for their crops and to promote the use of science in agriculture. In 1905 the Indian Farmer's Union requested the first study of soils ever made by the US department of agriculture. The state union played an important part in drafting the Oklahoma constitution. Union leadership represented almost half the elected delegates and was responsible for the election of "alfalfa Bill" Murray as convention president. Murray was an organizing member of the Oklahoma Farmer's Union.

Enrollment in the union dropped dramatically after statehood, partly because of the union's objections to US involvement in World War I. When the US did enter the war, groups that had been opposed were called unpatriotic and cowardly.

John Simpson was a teacher, lawyer and banker who migrated from Kansas to Oklahoma Territory to become a farmer. In 1914, after serving one term in the Oklahoma House of representatives, Simpson joined the Oklahoma Farmers Union. Two years later he was elected president.

In his 16 years as president Simpson helped revive the organization with his outspoken speeches. He criticized federal officials for setting prices for farm goods during the war. He was convinced farmers were being cheated. After the war Simpson organized more than 110 farm cooperatives to help farmers join together to get fair prices. His other accomplishments included establishing the Farmers' Union Insurance Company and the Oklahoma Union Farmer as the official state newspaper for the union. Under his direction the Oklahoma Farmers' Union became the largest state organization in the nation. In 1930 Simpson was elected president of the National Farmer's Union.

FRED HOEME: THE CHISEL PLOW

Fred Hoeme was a farmer living near Hooker during the Dust Bowl era who was concerned about wind erosion. Hoeme noticed that road equipment kicked up dirt clods that didn't blow around like the soil plowed using the usual plowing methods. He invented the chisel plow, which left the residue of previous crops exposed. This helped stabilize the soil and prevented the formation of surface crusts, which helped the soil take in and hold rainwater.

Hoeme and his sons manufactured and sold about 2,000 plows from their farmstead. In 1938 W.T. Graham bought the rights to make and sell the plows. Graham modified the plow and advertised it as the Graham-Hoeme Plow, the "Plow to save the Plains." It was sold worldwide. By the 1950s, about half of all Great Plain farmers owned chisel plows. The widespread use helped control wind erosion during the seven-year drought of the 50s. In 2000 a plaque was installed in Hoeme honor at the Williams Homesteaders Park in Hooker.

JOSEPH DANNE: WHEAT FOR OKLAHOMA

Joseph Danne was a self-taught plant geneticist who developed a variety of wheat well-suited to Oklahoma and the southern plains. The son of German immigrant parents, Danne moved to Kingfisher County in 1893. He received eight years of formal education before purchasing a farm in Beckham County at age 23. He studied the inheritance laws of Gregor Mendel and conducted genetic research, combining different strains of wheat to create new genetic hybrids.

The result was Triumph Wheat, a 13-year research project conducted between Sweetwater and Sayre in Beckham County. In 1924 and 1925 he combined two locally-grown selections from Turkey wheat with a lesser-known white wheat type from Australia. This produced a rare hybrid uniquely adapted to Oklahoma's growing conditions. It had shorter and stronger straw to withstand prairie winds and it matured early enough to escape Oklahoma's hot summers. It also had milling and baking characteristics that were favored by the milling and baking industries. Triumph was released in 1940. It was the first widely-grown wheat born in, and bred for the southern Great Plains.

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SAMUEL LLOYD NOBLE

In 1921, at the age of 24, Lloyd Noble borrowed \$15,000 from his mother to buy his first oil drilling rig. From this first purchase, he became one of the most successful and respected onshore drilling contractors in the United States.

As Noble's success in the oil business grew, he became more involved in Oklahoma's political and cultural activities. His greatest love lay with stewardship of the land. Noble owned three ranches in Carter County. He regularly flew in and out of Ardmore to manage his businesses. From the air he could see the erosion and other effects resulting from poor farming practices in Oklahoma and north Texas.

Noble regarded the land as very important to the future growth, prosperity and security of our country. In 1945 he formed the Samuel Roberts Noble Foundation. He named the foundation after his father, who he said was the most generous man he had ever known. The primary purpose of the foundation was to help farmers and ranchers preserve and restore their land through research and educational programs. The Noble family still operates the foundation.

ROY J. TURNER AND HAZFORD RUPERT THE 81ST

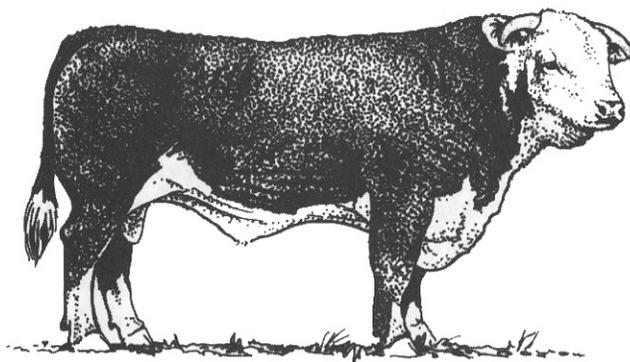
Roy Turner was governor of Oklahoma from 1947 to 1951, but he may have been more famous for his prize bull, Hazford Rupert the 81st.

Hazford Rupert 81st was the 1936 international champion, and the nation's first "million-dollar bull." Featured in various articles in *Time* and *Life* magazines, the bull in its lifetime produced hundreds of descendants valued at well over \$1 million.

Turner was born near Kendrick in 1894. He built his Hereford Heaven ranch, near Sulphur, with royalties from his oil-rich land. Hereford Heaven produced some of the most important sires and dams in the national Hereford registry. In 1963 Turner sold Hereford Heaven to Winthrop Rockefeller.

Governor Turner built highways (including Turner Turnpike) and farm-to-market roads, consolidated some small school districts, and secured passage of a common school bill that provided free text books. President Harry Truman asked Turner to become secretary of agriculture in 1949, but Turner declined the offer. While governor of Oklahoma and after leaving office, Turner sponsored livestock exhibitions and judging contests for 4-H Clubs and Future Farmers of America.

Turner's hobby was writing and singing country and western songs. One of his songs was named for his ranch, Hereford Heaven.



Robert S. Kerr and River Navigation

Robert S. Kerr was born to tenant farmers in the Chickasaw Nation, Indian Territory. In 1929 he established Anderson-Kerr Drilling Company with his brother-in-law. Six years later he began a collaboration with Phillips Petroleum Company that introduced him to geologist Dean A. McGee and led to the establishment of Kerr-McGee Oil Industries.

Kerr was elected Oklahoma's first native-born governor in 1942 and was elected to the US Senate in 1948. He helped secure funding for the McClelland-Kerr Arkansas River Navigation System, a 445-mile long system with 18 locks and dams, that creates a staircase on the Arkansas River from the Mississippi River to the Port of Catoosa near Tulsa.

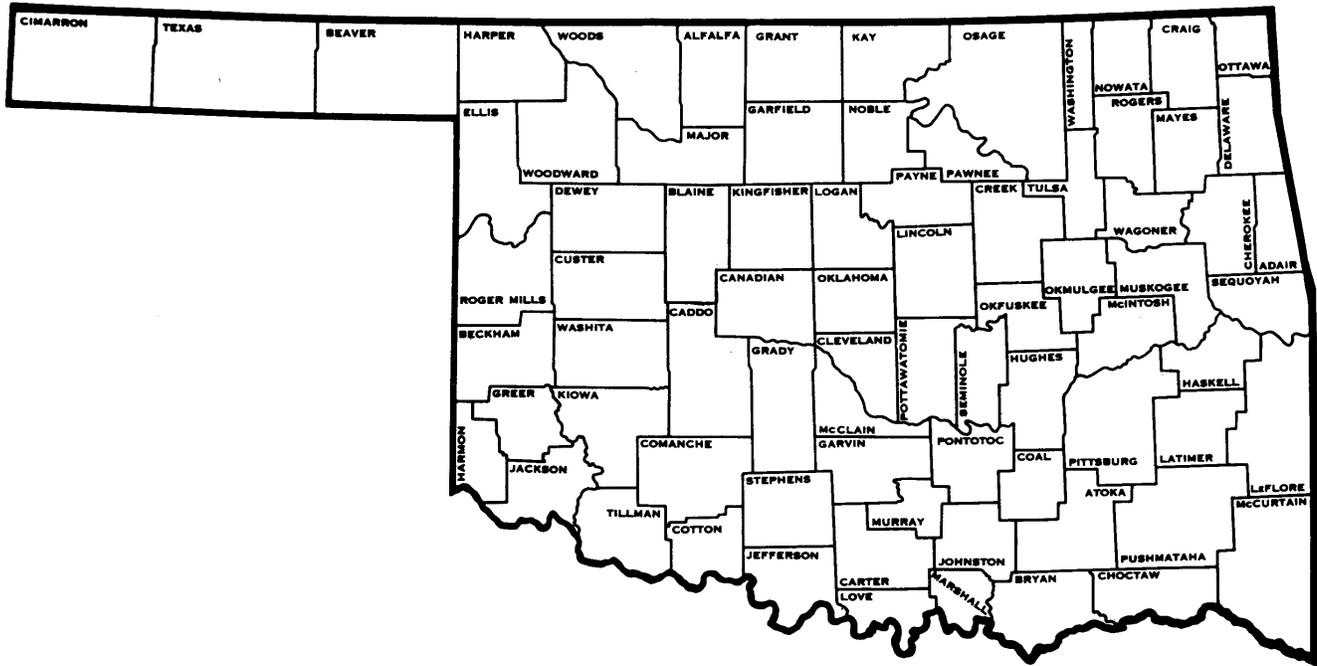
Commercial river navigation on the Arkansas got its start in 1824. The Florence was the first steamboat to navigate the river to Fort Gibson. Service on the Arkansas expanded as emigrant tribesmen established farms and plantations. Steamships carried people and agricultural commodities from 22 landings along the Arkansas in Indian Territory into the commerce of the Mississippi River Valley and on to New Orleans. Returning steamers brought passengers and goods to frontier villages and farmsteads. However, as railroads expanded into eastern Indian Territory, commercial traffic on the Arkansas River diminished.

The McClellan-Kerr Arkansas River Navigation System was the result of many years' effort by various groups to restore navigation on the Arkansas. From 1971 to 1990 an average of 7.6 million tons of commerce was carried on the system. At the end of the 20th Century sand, gravel and rock registered as the largest percentage of the commodities shipped along the channel. The system provides an important transportation link for agriculture. Cargo includes chemical fertilizers, wheat, soybeans and other agricultural products.

Robert S. Kerr died in 1963, eight years before the completion of the McClellan-Kerr Arkansas River Navigation System in 1971.

Name _____

Red Dirt Groundbreakers



1. Locate and color in the counties represented by each of the featured groundbreakers.
2. Create a map key to show which colors represents which groundbreakers.
3. Use the key from an Oklahoma road map to compute the distance from your county to each of the counties represented. Use the center of each county as a guide.
4. The Arkansas River is one of Oklahoma's major bodies of water. Draw the Arkansas River on this map.