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INTRODUCTION

The Texas Council on Economic Education has as a primary objective the development of materials to assist Texas teachers as they incorporate economics into their existing curriculum. In an effort to accomplish this, the Texas Council reviews many resources that are appropriate for each grade and evaluates each as it relates to the Texas Essential Knowledge and Skills and social studies standards. Most of the materials utilized are published by national organizations with far-reaching applications. To insure that all of our students, and teachers, have appropriate materials, this publication was developed to address the issues related to Texas’ economy. This material is designed to be used in both the fourth and seventh grades.

The objective of Texas Economics – Eras and Individuals is to provide supplemental materials that can be used to support an already established curriculum in language arts and social studies. These lessons are designed to be used independently of each other and can fit into the existing scope and sequence, as appropriate. The goal of the Texas Council on Economic Education, helping young people learn how to think, choose, and function in a global economy, is enhanced by the introduction of these economic lessons. These lessons are designed to meet the objectives of economic educators while at the same time preparing students for the Texas Assessment of Knowledge and Skills exam. Instead of assuming a competition for the time to integrate economics into the classroom, this publication recognizes the ability of using economics to teach mandated curriculum.

The lessons in this publication are designed for teachers who might not have a basis in economic training. As a result, these lessons contain detailed procedures, with easy to follow step-by-step instructions for the teacher. Each lesson also has extension activities, allowing for individualized assignments.

Texas Economics – Eras and Individuals will increase a teacher’s confidence in teaching economic concepts and will provide meaningful examples and activities for the students. With subjects including the cattle drives, king cotton, rail expansion, oil and boomtows, the great depression and dust bowl, urbanization, and current day tourism, economics is brought to life for the students.

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Dr. Sharpe has been involved with programs for the Texas Council on Economic Education for years, primarily as a presenter and coordinator of programs offered through the Center for Economic Education at the University of North Texas.
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LESSON 1

JEFFERSON, TEXAS: AN ECONOMICS LESSON

INTRODUCTION
Jefferson, Texas is located in the northeastern portion of Texas near the Louisiana border. It was founded in the early 1840s as a river port. A natural log-jam on the Red River had created a series of navigable lakes and bayous making Jefferson a favored inland port for the deposit and transport of agricultural products. In the 1840s, Jefferson had developed a booming river trade with New Orleans. It remained a major port until the 1870s when the transcontinental railroad bypassed Jefferson and the log-jam was destroyed.

In the 1870s census, Jefferson ranked second among Texas cities in commerce and industry. Only Galveston surpassed Jefferson in commerce. However, Jefferson’s monopoly of trade in Northeast Texas ended when two east-west railways bypassed Jefferson and linked the Grand Prairie farmlands directly with eastern markets. Capital and skilled labor quickly left Jefferson and by the 1880s, 138 businesses had moved to locations along the new rail lines. Also, the natural log-jam was destroyed leaving Jefferson with a lower water level. What effect did this have on Jefferson?

Economic Reasoning: Students should understand the reasons for economic growth and development of cities like Jefferson as well as the effects of railroad centers on the development of Texas. The students should also understand opportunity cost (the most valuable alternative given up when an economic decision is made) as it affected Jefferson.

(See economic terms in the glossary for more information on the concepts listed above.)

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Analyze the impact of economic phenomena within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas. (7.13B)

Analyze the impact of significant industries in Texas, such as oil and gas, aerospace, and medical technology on local, national, and international markets. (7.13C)
Pose and answer questions about geographic distributions and patterns in Texas during the 19th and 20th centuries. (7.8B)

Explain ways in which geographic factors have affected the political, economic, and social development of Texas. (7.10B)
Explain economic factors that led to the urbanization of Texas. (7.12A)

Trace the development of major industries that contributed to the urbanization of Texas. (7.12B)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)
ECONOMIC CONCEPTS
Urbanization (causes and effects)
Opportunity cost

HISTORICAL CONCEPTS
Growth of railroads
Development of Texas cities

CRITICAL QUESTIONS
1. What factors led to the economic growth of Jefferson?
2. Why did Jefferson not become a rail center in the 1870s?
3. Why was the log-jam on the Red River destroyed?
4. What was the opportunity cost of the decision to bypass Jefferson as a rail center?

LESSON DESCRIPTION
Students will use Jefferson, Texas as a case study of a town that bocomed in the mid-1800s and then declined in the 1880s. The main point of this economic lesson is “opportunity cost.”

TIME REQUIRED
One or two class periods

MATERIALS
Student Attachment 1
Student Attachment 2
http://www.tsha.utexas.edu/handbook/online

PROCEDURE
1. Ask students if they have recently had to decide whether to spend their money on one product over another? When they made the decision, did they realize that they had to give up something in order to get the product they wanted? (What they gave up was the other product.) This is “opportunity cost.” All economic decisions have an opportunity cost. Today, students will study the opportunity cost involved with one town in East Texas.
2. Have students locate Jefferson on a map of Texas. Ask them if they think this East Texas city could ever have been one of Texas’ major ports? Show students how the location of Jefferson near Caddo Lake connecting to the Red River and on to New Orleans created a river port that rivaled some of the best in the mid-1800s when river trade was so important.
3. Relate the story of Jefferson and read the attached information on Jay Gould.

History of Jefferson, Texas
Jefferson, Texas would have been just another small East Texas town except for a most unusual condition. A large natural log-jam and a collection of snags in the Red River, known as the Red River Raft, formed a series of lakes and bayous in the river valley. The city of Jefferson, founded in the early 1840s near Caddo Lake to take advantage of this log-jam, became a bustling market for North Texas agricultural produce. Cotton and other agricultural products were sent to New Orleans through the river port of Jefferson. Jefferson was ranked second among Texas cities for commerce in the 1870s census. However, in the mid-1870s, transcontinental rail links bypassed Jefferson and its wharves and left the city to suffer economic loss. Dallas, which had been little more than
a small town in northern Texas, became a trade and market center for the cotton lands of northeast Texas because two rail lines were built through it.

Why did the railroad bypass Jefferson? What role did Jay Gould play in the decision to bypass Jefferson? (Read Student Attachment 1 with students.)

4. Explain to students that myths abound on Jefferson, Texas, and we will probably never know the real truth. However, many accounts contradict the belief that Jay Gould deliberately bypassed Jefferson in anger. Some accounts even show him in strong support of Jefferson. For whatever reason, Jefferson did suffer in the decision to build rail centers in Dallas.

5. Read Student Attachment 2 about the destruction of the Red River Raft with students. Then, discuss the opportunity cost of both the railway and Red River Raft decisions on Jefferson.

6. To add another dimension to student understanding of opportunity cost, have students try to find the issues involved in the decision to build the regional airport, Dallas-Ft. Worth International. Were there people in Dallas who opposed building it when Love Field seemed to be adequate for the time (early 1970s)? Then have students try to visualize what might have happened to all the economic growth that has occurred because Dallas is a major transportation center if Love Field were the only airport for Dallas. (Be sure again that students understand that all economic decisions have an opportunity cost.)

CLOSURE
Ask students if they can think of an opportunity cost in their recent lives. Have they made an economic decision recently that made them give up something valuable? Have students share their opportunity cost with someone nearby.

EXTENSION
1. Have students research the paths of the railroads built in the 1870s and 1880s in Texas. They might do a map that shows the routes and major cities the railroads passed through. Are these cities still commerce centers today?

2. Teachers might have students study Jefferson today. What is the main source of income for the city?

3. Students might contact the Historical Association of Jefferson and create an historical timeline of the city's development.

4. Students might research the Red River Raft and write a journal as if they were farmers in North Texas before and after the destruction of the Raft.
Jay Gould

Jay Gould’s contact with Jefferson, Texas, began in 1881 when he purchased the Texas & Pacific railroad. This rail line had reached Jefferson in 1872, eight years before Jay Gould purchased it. In 1872, Jefferson was visited by officials of the Texas Pacific Railroad and from that visit, the story of a curse from Jay Gould on the city was started. The story suggests that Colonel Scott, the representative for the railroad, became upset at the complacency of the citizens of Jefferson who said, “Those long lines of ox-wagons are our railroad.” Colonel Scott responded with “People of Jefferson, the grass will grow green in your city streets.” (Note that Jay Gould had not purchased the railroad at that time [1872].)

Another story is that Jay Gould came through Jefferson in 1882 to convince the citizens to grant free right-of-way to his railroad. He failed to get the concessions and pronounced a curse on the city. In the hotel ledger beneath his signature and that of others are the words, “End of Jefferson.” (The authenticity of the signature has been disputed by his biographer as not looking at all like his handwriting. Also, Mr. Gould rarely stayed in hotels, preferring his private railway car with his family.)

In the Dallas Morning News, July 11, 1954, Robert Hayes wrote: “It was Gould, you will remember, who pronounced a curse on Jefferson when the town refused to grant a right of way and bonus to the Texas and Pacific in 1892. ‘You will live to see the day that weeds will grow in your streets,’ he warned local leaders after their refusal to meet his terms.”

In the Jefferson Journal, Jan.1, 1937, this article appeared: “Old Jay Gould, the man who built the Texas and Pacific, stood on the streets of that bustling center of navigation and trade that was Jefferson and predicted that the grass would take the town, and trees would shoot their branches through mouldering buildings – he was almost right.”

In the Marshall News Messenger, on Jan. 26, 1936, Maude Neville wrote: “Because Jefferson citizens refused to meet demands of the Gould interests in granting a right of way for the transcontinental, Jay Gould, present in person, pronounced a sort of witch’s curse on the town and declared that ‘grass would grow in the streets of Jefferson and the buildings house only bats.’”

Maury Klein, Gould biographer and professor of history at the University of Rhode Island, does not believe that Jay Gould had anything to do with the railroad bypassing Jefferson. He states:

The story of Gould threatening the end of Jefferson, Texas, and all the rest is simply preposterous on the face of it. That behavior is wholly out of character for Gould, and at this point, I know him better than any living soul. He was a quiet, soft-spoken man of immense self-control. His anger rarely showed, and certainly not in the form of vague, wild threats.

(Adapted from Tarpely, Fred. Jefferson: Riverport to the Southwest, Austin, Eakin Press, 1983.)
1873 was a momentous year for Jefferson, Texas. Two decisions that directly affected Jefferson were made with sad economic consequences for the city. On July 8th, the Texas and Pacific railroad completed the stint of track between Marshall and Texarkana. The effect on Jefferson was quickly felt as wagons that once came to Jefferson went to nearby railway depots instead of coming to the wharves of Jefferson.

In November of that same year, the last segments of the Red River Raft (the log-jam) were blown away by explosives. This sent most of the water that had been backed up in lakes and bayous into the main channel of the Red River. The water level in Caddo Lake and the Big Cypress was lowered to the point that large riverboats could no longer get to Jefferson. Jefferson’s fate from beginning to end was very literally tied to the Red River Raft.

Where did the Raft originate?

It is uncertain how the Raft began, but it is possible that a single tree floated downstream until it caught on a snag. Other objects were trapped by the log, and a large raft was begun. The Raft formed north of Natchitoches, LA and grew with accumulated timber upstream beyond Shreveport. Different segments were solidly packed with logs stacked 25 feet deep and held together by roots, moss, and soil. Some trees even took root in the raft and grew. It appeared to be a land mass overgrown with weeds and vines, but water oozed through it and sometimes floods went over it. The volume of the Red River flowed around it, backing up water into swamps that deepened into lakes and formed parallel waterways. The first report known on the Raft was done for Thomas Jefferson in 1805. At that time it was located 25 miles north of Natchitoches with smaller rafts stretching 100 miles upstream. It grew at a rate of almost a mile a year.

Why was it destroyed?

Many people were flooded regularly because of the Raft. Additionally, navigation of the Red River was made more difficult by the blockage. Northeast Texas, northwest Louisiana, and southwestern Arkansas all could gain from reclaimed flooded lowlands. The benefits of removal seemed to outweigh the benefits of leaving it.

In March of 1838, a powerful snag boat rammed through the head of the Raft, clearing the channel. However, heavy rains in 1839 brought a new load of timber that formed in the same area as the original raft. One year and a quarter-of-a-million dollars later, the river was still blocked. Congress did not appropriate more money to destroy the Raft until 1872. For Jefferson, the failure to remove the Raft meant prosperity.

In 1873, snag boats and nitroglycerin were used to destroy the Raft. What the boat alone had not done in 1838, the explosives did in 1873. The main channel of the Red River was opened on Thanksgiving Day, 1873. The removal was permanent this time, as dams held back bayous, and channels were deepened to allow swifter flow.

The consequences were as expected. Everyone but Jefferson prospered with the removal. Water receded and Jefferson was out of reach for steamers. Shreveport thrived on Jefferson’s loss, but this gain for Shreveport was short lived as the iron horse completely replaced the steamboat. However, Jefferson would never gain its status as a major commerce center.

(Adapted from Tarpely, Fred. Jefferson: Riverport to the Southwest, Austin, Eakin Press, 1983.)
LESSON 2

THE GREAT CATTLE DRIVE ERA

INTRODUCTION
The first trail drive in Texas history can be traced back to the time of the battle of San Jacinto. However, cattle drives thrived in the 25 years just following the Civil War. Soldiers returning to Texas from the Civil War found their ranches overrun with cattle, as the cattle had multiplied many times over while they were away at war. This was especially true in the western and southern portions of Texas where open ranges and few people existed. The Texas economy, like others in the South, was devastated by the Civil War and desperately needed sources of revenue.

In addition, eastern cities found food supplies short after the war. Beef from Texas seemed an answer to both problems. The issue quickly became how to get beef to eastern cities. Railroads provided a means of transportation, but the closest rail line went through Abilene, Kansas. Thus, the trail drive from Texas ranches to railheads, such as Abilene, began.

Economic Reasoning: Students should understand the reason for trail drives after the Civil War. The huge supply of beef in Texas and the demand for beef in cities in the East quickly led to the era of trail drives (supply and demand.)

The cattle business became so profitable that too many cows were available in the 1890s. This overproduction hurt the cattle industry as more beef on the market meant lower profits (money left after expenses are covered) paid to the rancher.

(See economic terms in the glossary for more information on the concepts listed above.)

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Analyze the impact of economic phenomena within the free enterprise system, such as supply and demand, profit, government regulation, and world competition on the economy of Texas. (7.13B)

Analyze the impact of significant industries in Texas, such as oil and gas, aerospace, and medical technology on local, national, and international markets. (7.13C)
Analyze the political, economic, and social impact of major wars, including World War I and World War II on the history of Texas. (7.7D)

Pose and answer questions about geographic distributions and patterns in Texas during the 19th and 20th centuries. (7.8B)

Explain ways in which geographic factors have affected the political, economic, and social development of Texas. (7.10B)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)
ECONOMIC CONCEPTS
Supply and demand
Profit
Overproduction

HISTORICAL CONCEPTS
Cowboys
Trail Drives
Transportation

CRITICAL QUESTIONS
1. What economic factors led to trail drives?
2. What profit could a trail boss expect to make from a trail drive?
3. What was the trail drive really like?

LESSON DESCRIPTION
Students will read and discuss what trail drives were like, then plan trail drives as if they were the trail bosses.

TIME REQUIRED
Two or three class periods

MATERIALS
Textbook-any of the adopted books
Attachment 1
Websites:
• www.house.gov/combest/cattlehist.htm
• http://www.eh.net/ehresources/howmuch/dollarq.php

PROCEDURE
1. The teacher may open the lesson by asking students what they think they know about cowboys. The teacher may compile a list of traits of cowboys from this brainstorming and use it during the lesson to help distinguish myth from reality.
2. Students should read in their Texas History textbook about cowboys and the great cattle drives following the Civil War.
3. The teacher will want to follow up text reading with discussion and questions about cowboys and roles they played on the cattle drives either from the text or from information provided. (See Attachment 1 for an account of a trail drive.)
   • Most cattle drives consisted of a few hundred or up to a few thousand cows. Longhorns were preferred, as they were hardy cows and could survive the hardships of the trail. The longhorn cow had been roaming the plains of Texas for 100 years or so and had developed into a formidable beast. Neither harsh weather nor little water could hurt this cow. Their horns could attack or defend, and they had a well-developed sense of smell. The bull had horns that measured from six to eight feet across, and was a powerful combination of speed and muscle. He had to be to endure hardships including droughts, floods, snakes, disease, rustlers, and stampedes.
   • Large drives (3,000 cows) might require about 20 cowboys who were used in a variety of positions. One position was as scout in front of the herd. Scouts would look for grazing land, water, and possible trouble such as rustlers or hazardous trail conditions. Other positions were the drover, who rode beside the herd to keep it moving, or pointer, who
rode in front of the herd to keep the cattle on the right path. The least desirable position was as drag. In drag position, the cowboys were behind the herd to keep strays from getting away and to keep the herd moving. This was a dusty and difficult job so the youngest cowboys were usually given the job. Every trail drive had a trail boss who hired the cowboys, kept the records, and kept everything running smoothly. He often had an assistant, ramrod, whose main duty was to keep the remuda, or extra horses. The twenty cowboys might use 60 horses on a drive. Finally, every drive had a cook and chuck wagon to feed the cowboys. The cook stayed ahead of the herd so that he could have dinner ready for the cowboys when they settled for the night. There was always a supply of beef for dinner, but rarely fresh vegetables, unless they could buy them along the trail. Beans and biscuits were staples. There was little glamour in a trail drive, though many TV shows and movies have made them seem romantic and exciting. In reality, the drive was hard and not very rewarding for the drovers.

- Cattle drives ended around 1890. Barbed wire had closed off the open range making travel difficult, overproduction of cattle had brought profits down, and railroads had come to Texas. Though the cattle drives ended, the cattle business is still one of Texas' major industries and agribusiness ranks just under the oil business in the Texas economy.

4. Have students find the website from Congressman Combet on Texas cattle history (listed above). They are to find the monthly wages of cattle drovers, the trail boss, and cook. (Drover made up to $40 if they were experienced. The boss made about $100 and the cook about $75.)

5. Next, have students, in small groups, plan a trail drive for about 2,000 head of cattle. Here are the essential details: One cowboy is needed for every 250 cows. Cows were often rounded up from the open range at little cost and sent on the cattle drive. Once the drive reached its destination, cows could be sold for around $40 a head. However, losses along the trail usually ran up to 20% of the herd. The trail drive could travel about 15 miles a day. To reach the railhead, the herd would travel about 450 miles.

- Students should calculate how many days they will be on the trail if all goes well, the number of cowboys and horses they will need, and the wages they must pay. Students should add in approximately what food for the drive will cost - $90-$100 per month.
- Next, students should calculate their profit on the cattle drive. Profit is the amount of money made after all expenses are paid.

6. Finally, have students go to the other website listed under "resources" and convert those costs from the late 1800s into today's costs. What would a trail drive cost today and what would the profit be in today's dollars?

**CLOSURE**

Students will share their plans for a trail drive with the larger group and compare their findings with other groups. The teacher may wish to record each group's costs on the board and have students calculate an average cost for a trail drive of 450 miles, then and now.
EXTENSION

1. The teacher may wish to have students simulate an actual trail drive and calculate the miles made each day. The teacher could give a different hardship every few days to the group so as to lose days on stampedes, floods, or going out of their way for water for the herd.

2. The teacher could have the students produce a PowerPoint presentation for the class on their plans for a cattle drive.

3. Students could view a video or TV program and do a compare/contrast essay on myth vs. reality of the great trail drives.

4. Students may be asked to research the cattle business in Texas today. What products come from a cow? How big is the cattle business in the Texas economy?
A herd under ordinary conditions was ready for grazing in the morning at eleven o'clock. At this time the men stopped for dinner which had been prepared while breakfast was cooking....After this grazing at noon, the cattle would not eat any more until they got water, which we always tried to reach before sundown. This gave us ample time to have the cattle filled and everything arranged for a pleasant night....The herd was put in a circle, the cattle being a comfortable distance apart. When the drive was first started and the cattle were fresh, I used a double guard. That is, half the men guarded the first part of the night; the other half the latter part. In storms and stampedes we were all on duty. After the herd had been out fifteen days, it was "trail broke" and four men were sufficient to guard three thousand cattle. If we were out two or three months, the last month, two men on duty at a time were sufficient...The guards rode around the herd facing each other; in this way they passed each other twice as they went around. If a rattlesnake was heard in the guard line, the men hearing it informed his companion of its whereabouts and the next morning someone would go and kill it—rattlesnakes do not move at night. Cattle feared a rattlesnake and would give him a wide berth.

When the cattle are first started, the risk of stampedes is great. They are nervous and easily frightened, the slightest noise may startle them into running. Some cattle are stampeded by nature....A herd was more likely to run on a dark night than on a moonlight night. The remarkable thing about it was that the whole herd started instantly, jarring the earth like an earthquake....

Taking it all in, my life on the trail was the happiest part of it. I wish I could find words to describe the companionship and loyalty of the men towards each other. It was beyond imagination....Bullies and tyrants were unknown among them. They kept their places around a herd and under all circumstances; and if they had to fight they were always ready. Timid men were not known among them—the life did not fit them....Fewer cowboys have been tried for crimes than any other class of men.
LESSON 3

RAILS, HEDGES, AND BARBED WIRE:
THE HIGH COST OF FENCING ON THE TEXAS FRONTIER

INTRODUCTION
The fence problem in Texas began to be a major issue once the line of frontier homes entered the prairies and plains where there was little, if any, timber. When settlers first moved into Texas, much of the open prairie land was avoided, despite the fact that it was often more fertile, because it lacked sources of wood. By the 1870s the question of wood attracted a great deal of attention. Between 1870 and 1890, thousands and thousands of pioneers moved into Texas to homestead. They needed to find some substitute for the old-fashioned rail fences used in the East. Fencing on the plains cost at least sixty percent more than in areas where materials were easier to get.

The Texas cattleman wanted to keep the range open and wanted the farmer to fence in his fields. The farmer wanted the cattleman to fence his range and leave his fields open. Thus, the conflict escalated with the East favoring fencing of cattle and the West favoring the fencing of farms. The fence question began to be hotly debated during the 1870s. With this heated debate came the issue of what materials to use in fencing. Almost any fence at all was expensive, but with the lack of wood, the cost of fencing was elevated in importance. This issue was addressed by the Department of Agriculture in 1871. The report points out that, figuring the cost of fencing at $1.00 per rod, a 640 acre homestead would cost $1280 to fence, or $2 per acre. A 160 acre homestead would cost $640.00, or $4 per acre to fence. A 40 acre piece of land would cost $320.00 to fence or $8 per acre. It was determined that the smaller the acreage, the greater the financial burden for fencing. For Texans in the western part of the state a dilemma existed; without fences, the farmer could have no crops. Yet fencing was so expensive, it was prohibitive.
Because of the rate of return on the basic investment, the farmer really needed more land to cultivate than the rancher needed for cattle. It was not surprising that the farmer began to insist that the cattleman fence in his cattle.

Before the general introduction of barbed wire, people sought new methods of fencing that would be less expensive. One method that had some success was the hedge. The osage orange, commonly called the “bois d’arc,” was hardy enough to grow on the blackland prairie and was not killed by the cold in the more northern areas. Texas became one of the nurseries for this plant – growing and shipping seeds by the bushels.
The fence, about 4 years after planting, would be “pig tight, horse high, and bull strong.”

Barbed wire seemed the answer to the fence problem. It was developed and introduced in the 1870s and began to be a major source for fencing by the late 1870s. This invention was perhaps the single most important invention to the settlement of West Texas. This new fencing material cost from $150 to $200 per mile. The largest ranch owners typically began to fence first. Another economic result was a loss of jobs. Without the wide-open range, fewer cowboys were needed to roundup the cattle. With the coming of the railroad, cowboys were not needed to drive cattle on long trails to points north, and with the introduction of wire fencing, fewer hands were needed to work the herd. The coming of barbed wire dealt an economic blow to the cowboy.
It is not surprising that the “range wars” developed in Texas as a result of the fencing question. By the early 1880s, fence cutting was done in epidemic proportions in West Texas. The enormous loss of money for both the ranchers and the farmers with the destruction and repair of fences was a critical issue. A special session of the Texas legislature was called in 1884 and a law was passed making fence cutting a felony.

**Economic Reasoning:** Students should understand that the pull of free or inexpensive land drew thousands to Texas after the Civil War. More of the homesteaders moved west onto the prairies and plains. The supply of timber with which to build fences, barns, and housing was so limited—the prices went up (both to purchase wood and to transport it from the East). The demand for more fences as a result of the increase in population and the number of homesteads led to greater shortages. Shortages led entrepreneurs to seek ways to solve the problem (looking for other methods of fencing) and make a profit in the process. Students will know the following terms: supply, demand, profit, and entrepreneur.

(See economic terms in the glossary for more information on the concepts listed above.)

**TEXAS ESSENTIAL KNOWLEDGE AND SKILLS**
Analyze the impact of economic phenomena within the free enterprise system, such as supply and demand, profit, government regulation, and world competition, on the economy of Texas. (7.13B)

Explain the political, economic, and social impact of the cattle and oil industries and the development of West Texas resulting from the close of the frontier. (7.6B)
Analyze the impact of national and international markets and events on the production of goods and services in Texas. (7.13A)

Evaluate the effects of scientific discoveries and technological innovations on the use of resources such as fossil fuels, water, and land. (7.20D)

Differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas. (7.21A)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)

Use social studies terminology correctly. (7.22A)

**ECONOMIC CONCEPTS**
Supply
Demand
Entrepreneur
Profit

**HISTORICAL CONCEPTS**
Great Plains
Conflict between farmers and ranchers
Range Wars
LESSON DESCRIPTION
In this lesson students will learn about the shortage of timber on the Texas plains and examine the high cost of fencing. They will relate the short supply of wood to the inventiveness of entrepreneurs to find a new method of fencing.

TIME REQUIRED
1 to 2 class periods

MATERIALS
Copies of Attachment 1: The Fence Question
Copies of Attachment 2: Cost of Fencing in Texas
Attachment 3: Supplemental Reading – Production of Osage Orange Seeds
Visual 1: Picture of 2 types of fences side-by-side
Visual 2: The Price of Barbed Wire
Web Sites:
- http://www.nara.gov/ is the web site for the National Archives. This site has a lesson entitled "Glidden's Patent Application for Barbed Wire" (from Teaching With Documents, Vol. 2).
- http://www.texasalmanac.com (Texas History Highlights) from the Texas Almanac. Has an article on both barbed wire and windmills.
- http://www.tsha.utexas.edu/handbook/online/index.new.htm Handbook of Texas Online has an abundance of information that can be used with this lesson. For example, see Gates, John Wame (Bet-A-Million Gates) for the account of his selling barbed wire in San Antonio.
- http://hedgeapple.com Students can visit this web site to see what an osage orange fruit looks like (a variety of pictures are available) and figure the cost of the hedge apples currently being shipped by this company.
- http://www.digitcom.org/digitcom/highlights/boisdarc.html This site has an article on Commerce, Texas and its Bois d'arc connection, relating some of the history and uses for the hedge. This community has a festival celebrating this plant every year.

PROCEDURE
1. Ask the students to think about the number of fences in their neighborhood. Have them describe the various kinds that they see on a daily basis in and around their area. Have students explore why we see fencing in our neighborhoods – reasons people go to the trouble and expense of building them. If students live in the country, adjust the questioning to fit the circumstances. Ask them if they know how much fencing costs today. Present a variety of figures from the local lumber yard or building supply store. Be sure to include a labor cost as well.
2. Explore the problems with fences in Texas prior to the turn-of-the-century (see introduction). Stress to the class that this was hotly debated over a number of years. The introduction and increased use of barbed wire lowered the cost of
fencing. The dispute over the fencing issue (range wars) led to government action.

3. Show students a transparency of Visual 1 – a picture showing the two types of major fencing material side-by-side (board fencing and barbed wire). Ask them to analyze the differences between the rail fence and the wire fence. They can speculate on the potential problems that the differences might indicate.

4. Prepare in advance slips of paper with "Rancher" written on half and "Farmer" written on half. Have enough so that each student can draw one slip of paper and take the role of the occupation noted. Give each student a copy of Attachment 1 (from the Galveston News, July 18, 1873). Pose the following situation: Since fencing seems to be a critical problem on the frontier of Texas, this newspaper is advocating that we do away with fencing altogether. You are to read the information provided on Attachment 1 and design arguments for or against this action from either the rancher's perspective or the farmer's perspective. Consider what might happen if fences on the frontier were eliminated. Remind students that this argument before the public was discussed BEFORE the use of barbed wire for fences in Texas. Also, stipulate that students discuss the economic problems that would develop without fencing.

5. Provide each student with a copy of Attachment 2. Ask the students to read this information and determine which solution is being suggested and why. (Note to teachers: Again point out the date of these articles. Wire was available, but was still considered more expensive than the hedge.) Review with students the law of supply and demand. Revisit the issue of price increases as the supply of a product decreases.

6. Discuss the introduction of barbed wire to the plains. Make a transparency of Visual 2. Ask student to create a line graph showing the price of barbed wire over a critical period of time, beginning with 1874 and ending with 1897. Have students predict why the price of the wire went down during this time. More people were moving to the plains of Texas and the demand for wire was going up; however, the price of wire was going down (during the time period noted on Visual 2). Why was this the case? Stress the role of profit in wire production in the 1880s and 1890s.

CLOSURE
Ask students to consider three types of fences – rail (wood planks), hedge, and barbed wire – and present at least three reasons why barbed wire became the choice for both farmers and ranchers in West Texas. Students should then write a paragraph on the economic impact of the invention of barbed wire in Texas history, using the terms supply, demand, and profit, and stressing the importance of this invention to the settlement of the state.

EXTENSION
1. Students could look at the landscape in their own region or neighborhoods to determine if they have any remaining remnants of bois d’arc hedges or of old barbed wire fencing.
2. Invite a barbed wire collector to visit the class and bring samples of wire for students to examine. Which types of wire are now more collectable and why?
3. Read accounts of the introduction of barbed wire to Texas and discuss why the salesman was able to convince the farmers and ranchers to try this new technology.
4. Collect osage oranges (or "horse apples" as they are sometimes called) and have students go through the process of cleaning the seeds for market. Ask: "Is this still a viable way of fencing today? Why or why not?" See Attachment 3 --Supplemental Reading on the Production of Osage Orange Seeds. For a math connection, have students design math problems using seed production as a base.

5. Give students different roles and different amounts of acreage. Ask them to calculate the cost of fencing their ranch or homestead.
The Fence Question

"Here is a matter for press and people to discuss, and the most important one now before the people of the United States. We should not say discuss, for there is nothing to discuss. It is the only proposition we ever knew that had all the argument on one side. Although the most costly and most extensively used of all other things, there does not exist, or cannot be produced, a solitary reason or advantage in favor of fencing.

As our business is to advocate everything best for the general good, we cannot let the subject lie idle any longer, and intend to show the true facts as they exist, and what the country is losing by the ruinous system. And we call upon every paper in the land to aid in showing advantages to arise from the abolishing of fences.

We start out with the following facts for consideration of our farmers and readers:
1. That the fencing of the United States costs more than everything in the Union, except railroads and cities, and more than either of these separately.
2. That the annual repair of fencing costs more than all the taxes of the country, Federal, state, county, and municipal combined.
3. That there is not a solitary county in any agricultural district of the Union in which the fencing has not cost ten times as much as the value of all the stock in such county.
4. That the value of manures lost per annum by the running at large of stock is worth more than the pasturing of the stock would cost.
5. That the change from fencing for agricultural purposes to fencing stock — or that is from fencing stock in, instead of fencing it out — would save 75 percent of the present enormous outlay.
6. That without a great decrease in fencing, the timber of the country will soon be exhausted, and its removal aid in turning our fertile regions into arid deserts.
7. That nine tenths of all the petty cases before the courts of the country, which beggar our counties, grow out of the fence system as it now exists, through the depredation of stock.
8. That such a change would relieve the country of a greater burden of taxation than all else combined.

We ask our people to give this matter the attention it deserves."

From: Galveston News, July 18, 1873.
Cost of Fences in Texas

"Cheap and durable fences are imperatively demanded on our broad Texas prairies, where timber is scarce and of slow growth. And we may accept it as a demonstrated truth that if we are to depend upon the old method of inclosing our fields and pastures, . . . millions of our most valuable lands will lie idle for many years to come. Substitutes, of many varieties, have been offered, but with poor success. Plank does very well, but soon rots, and, remote from railroads, is too costly. Smooth wire makes a tolerably good but quite an expensive fence. Barbed wire makes a good but barbarous fence, and ought to be dispensed with as soon as possible. Either of these substitutes for the old-fashioned and time-honored rail may be used temporarily; but for durability and efficiency nothing can equal a good hedge."

From: Galveston News, January 17, 1878.

". . . A large portion of the improved part of the state is inclosed with board fences, and not only the cost of this material, but its poor quality, rapid decay, constantly decreasing supply, and its comparatively worthless character in resisting the assaults of stock, present questions of much importance to the farmer for study and experiment.

To inclose a quarter-section – 160 acres – of land and have but two partition fences through it (taking no note of other necessary fencing for fields, lanes, or lots about house and barn) will take three miles of fencing – the cost of which will be about one dollar per rod, amounting to $560 for the three miles, or $3840 as the cost of fencing each section or square mile of land in the county. Counties are generally about 30 miles square and contain 900 square miles of land. Estimating one third an unimproved, if but the other two thirds – say 600 sections – were inclosed, it would be at a cost to the county of $2,304,000 for a fence lasting but ten years, the average age of such fences.

Estimating but fifty counties in the whole state to be thus enclosed would show an investment by our farmers of nearly one hundred and fifty millions of dollars.

We find that a single improved farm of 640 acres costs the farmer $3840 for fencing.

Estimating on this first cost, for annual deterioration and repairs, 10 per cent, and 10 per cent interest on this cost, also, will show the annual cost to each farm of one section (640 acres) to be $768. Neither ornamental fences in towns and cities nor road fences have been included in these estimates, but left as an offset to that portion used in division fences.

Owing to the great scarcity of timber in many parts of the state, we can scarcely expect to renew those fences with material similar to that now in use, and as neither stone nor wire can be brought into general use, our only economical alternative is to cultivate hedges or live fences, which cost but little to grow, will last for generations, require no repairs other than pruning, and will keep out stock of all kinds large or small."

From: Galveston News, April 4, 1878.
The Price of Barbed Wire

The price of barbed wire also is of interest in its bearing on the problem of cheap fencing, so necessary in the Great Plains. In 1874 the wire sold at $20 a hundred pounds. In 1880 at $10, in 1885 at $4.20, in 1890 at $3.45, and in 1897 it reached the low mark of $1.80 a hundred.

Supplemental Reading:

PRODUCTION OF OSAGE ORANGE SEEDS
The method for washing out the seeds has been told by W. H. Harper:

"In about the year 1870 nearly everyone was trying to get bois d'arc seed either to speculate on or to plant for hedges. The apples first had to be gathered and put in piles and let lie until rotten. The four sides were cut away with knives and the core was ready to grind up in a small wooden mill with a horse hitched to it.

Then they were put in a trough with holes bored in the bottom. The seed had to be washed through three or four waters, and then put on a scaffold to dry. It was necessary to stir the seed to keep them from moulding.

It took about one thousand apples to make a bushed of seed. Four or five good hands could get out ten bushels a day. The apples were bought at $1.50 per thousand, and the seed sold at $25 per bushel.

I learned all I know about bois d'arc apples or osage-orange seed while living five miles from Ladonia, Fannin County. The market for seed was Bonham, Texas."


Suggested Resources:

LESSON 4

WHEN COTTON WAS KING;
THE ECONOMICS OF THE COTTON INDUSTRY

INTRODUCTION
The fine fertile lands of Texas and the favorable seasons for growing and harvesting the crops have caused Texas to be a major agricultural state since the beginning of its history. The state is large and possesses a great variety of soils and climates, almost all kinds of crops can be grown successfully. Cotton has been a major crop for many years. In the early days of Texas, cotton production was confined mainly to the eastern and southern parts of the state and to the lands lying along the rivers and creeks. As the population began to move onto the plains and prairie lands, it was discovered that cotton could be grown in these areas as well. The black land country in the central part of the state became the greatest cotton-producing region in the world, and Texas quickly ranked as one of the leading cotton producing states in the nation.

An important addition to the value of the cotton crop was developed toward the end of the nineteenth century. A method of extracting the oil from cottonseed made this crop even more valuable as an agricultural product. By 1900, the cottonseed processing became the second largest industry in Texas. The areas of the state producing cotton gradually spread to West and South Texas by the 1920s. By the 1930s cotton furnished more than one-half of the value of Texas crops. Many people in Texas depended on cotton for their livelihood. The simple cotton farmer was a major economic player in Texas well into the twentieth century.

There was a major increase in the number of farms and farmers in Texas after the Civil War. From 1880 to 1890 the number of farms in Texas doubled, but the number of tenants tripled. A tenant is someone renting the land he/she farmed instead of owning the land. Many of the pioneers coming to Texas lacked resources necessary to buy land of their own. Another word frequently used for tenants is “sharecropper”. The sharecropper paid for the rented land by promising a share of the crop or labor; this was the most common arrangement in Texas following the Civil War. Sharecroppers were considered laborers whose wages were paid with a share of the crops. A sharecropping arrangement gave the landowner greater control. In addition to paying out a portion of the crop as rent, tenants and sharecroppers would often mortgage a portion of a future crop to a merchant or the landlord for food or other supplies. The person serving as a lender (merchant) charged high interest rates on the crop because the price to be received at the time of sale was unknown and the size of the crop was also uncertain. The risk was great for the lender, which resulted in the high rates. Under this system, the tenant often could never get out of this economic cycle – the tenant farmer would often owe more money than he/she received for his crops at the end of the season. He would have to borrow again to grow a crop in the next season.

By 1900, half of the state's farmers were tenants. The tenancy practice had its impact on blacks and whites alike. The impact was greater on blacks immediately after the Civil War, but the impact continued to affect the white population over time. By 1929, 55.7 percent of all farms in Texas were tilled by white tenants. The percentage of tenants had continued to climb since the Civil War. In 1930, it was the highest in Texas history.
With the coming of the programs of the New Deal, the number of tenant farmers started to decline. The impact of technology was particularly to blame. For example, few Texas farmers owned tractors in 1929. By 1960, more tractors were being used than there were farms.

Cotton was a physically challenging crop to raise. It has been estimated that it would take 168 man-hours of labor to raise one acre of cotton a year in 1880. It

**Economic Reasoning:** This lesson will explore the role of tenant farming and sharecropping in the economic history of Texas. Students will examine the cycle of **economics of farm tenancy** from the post-Civil War period through the Depression and understand that the cycle was one that became difficult to break over time. They will understand that the motivation to develop the tenant farming system came from the lack of **resources** with which to purchase land to farm after the Civil War. Many laborers became tenant farmers hoping to someday purchase their own land. For plantation owners, they had land but no money. The **supply** of free land in the western part of Texas and available land on large farms and plantations in East Texas and the coastal plains areas was a factor in the development of farm tenancy. The **demand** for cheap labor was another factor. Freed slaves and immigrants moving into Texas provided the **supply** of labor. Once the farm tenancy system was established, the cycle continued as tenants and sharecroppers would mortgage a future crop for food and supplies and would often break even or still owe on a crop after it had been harvested – so another loan had to be taken out in order to live until the next harvest. The **factors of production** of the cotton industry will also be examined. The **government regulations** implemented with the New Deal programs and changes in technology caused changes in the numbers of tenant farmers in Texas. The critical reasoning skill to stress with this lesson is the cause/effect relationship primary to any economic cycle.

**TEXAS ESSENTIAL KNOWLEDGE AND SKILLS**

Analyze the impact of economic phenomena within the free enterprise system, such as supply and demand, profit, government regulation, and world competition, on the economy of Texas. (7.13B)

Define the impact of “boom & bust” and trace the boom-and-bust cycle of leading Texas industries throughout 20th century, including farming, oil and gas, cotton, cattle ranching, real estate and banking. (7.7A)

Analyze the impact of national and international markets and events on the production of goods and services in Texas. (7.13A)

Differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas. (7.21A)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)

Use social studies terminology correctly. (7.22A)
**ECONOMIC CONCEPTS**
Supply
Demand
Profit
Interdependence
Government regulation
Factors of production

**HISTORICAL CONCEPTS**
Agrarian South
Tenant Farming
New Deal (government regulations)
Great Depression

**CRITICAL QUESTIONS**
1. What was the motivation behind the development of the tenant farming system in Texas after the Civil War?
2. What resources were in great supply during this time period? What was in short supply?
3. What role did freed slaves and newly arrived immigrants play in the development of the farm tenancy system?
4. What was the profit motive for this system? From the landlord position? From the tenant farmer or sharecropper's position?
5. How did the government regulations implemented with the New Deal programs lead to the reduction of tenant farmers in Texas? What other factors played a role in the changing numbers?

**LESSON DESCRIPTION**
In this lesson students will examine the cycle of farm tenancy that developed in Texas after the Civil War and look at significant factors of supply and demand that played a role in the growth of the system. They will look at changes brought about by New Deal government regulations and the development and implementation of new technologies. Students will complete a cause-effect graphic that highlights the economic relationships of supply, demand, and profit.

**TIME REQUIRED**
1 – 2 class periods

**MATERIALS**
Film clips from the movie *Places in the Heart* starring Sally Field and Danny Glover. Teachers should show scenes of cotton picking and crop harvest in Ellis County, Texas during the Depression. Stress the labor requirements for this harvest and the farmer's dependency on factors outside their control – like weather conditions and cotton prices at the time of marketing.

Web Sites:
- http://www.cottonseed.com Site has 20 facts about cottonseed oil. Also has link to U.S. Census Bureau for production.
- http:inpnww.ncsu.edu/CottonPickin/ Cotton Pickin' web site. Can click on cotton states – gives cotton production information for that state. Has cotton photos link from Texas A & M to show students what the plant looks like.
- http://www.memory.loc.gov American Memory site at the Library of Congress. See especially the collection entitled "America From the Great Depression to World War II: Photographs from the FSA-OWI, 1935 – 1945".
• www.texasalmanac.com
  Texas Almanac site
• http://www.tsha.utexas.edu/handbook/online/index.new.html
  Handbook of Texas site. See especially the article on Farm Tenancy.

PROCEDURE
1. Introduce the lesson by showing the class film clips from the video *Places in the Heart*, starring Sally Field and Danny Glover. Ask students to discuss what they would determine the most difficult aspects of cotton farming in Texas based on the film’s depiction of picking the crop. Teachers can also use the supplemental information (readings) to highlight the labor intensity of cotton production.
2. Provide the class with background information on the importance of cotton production in Texas over time. Use Visual 1 as a starting point. This table shows the growth of cotton production for a 30 year period following the Civil War. Use current information about cotton production in Texas to stress the crop’s continued importance to the Texas economy.
3. The "Farm Tenancy" article from the Texas Handbook provides an excellent background on the development, growth and decline of this system in Texas History. Provide students with copies of Attachment 1 showing the post Civil War tenant farmer’s plight.

CLOSURE
Give students copies of the cause/effect graphic organizer (Attachment 2) and ask them to complete the graphic using the information provided in their textbook, the lecture notes and the readings.

EXTENSION
1. Ask students to interview older people in their family or neighborhood that participated in cotton production in some way.
2. Have students examine the uses of cotton and the major cotton producing areas of the world today. Has the economic importance of cotton changed in the last 50 years? Why or why not?
3. Ask students to create a map of the major cotton producing areas of Texas today. Are some areas producing more than others? If so, why?
Acreage Harvested and Yields of Cotton Crops in Texas, 1870-1900

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<th>1870</th>
<th>1880</th>
<th>1890</th>
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<td>350,628</td>
<td>805,284</td>
<td>1,471,242</td>
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<tr>
<td>Acres Harvested</td>
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<td>2,178,435</td>
<td>3,934,525</td>
<td>6,960,367</td>
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</table>

SUPPLEMENTAL INFORMATION

“Through the warming days chopping. Sending the blade slicing through the dark, hilled crumbles of earth. Killing weeds. Thinning cotton. Up, down, swing the hoe into a sort of limbo, a Nirvana, in which only a few muscles remain aware, and they not sharply. Sweat-wet clothes dragging coolly, coolly galling. And time no longer exists in minutes and hours, but in rows and acres. An even this is vague. A sea of up and down. Of bad meals. A back that aches in your sleep. The savage growth of the black land is in the weeds and you are chopping them down. With the small of your back. In the chopping trance all day for seventy-five cents, and you come out of the fields at night having made it. But you feel all right because you have done a good thing to the crop. Anybody can earn six bits. But you have been chopping cotton, have been doing something that in the long run makes big sense.”

SUPPLEMENTAL INFORMATION

Reminiscences of Cotton Pickin’ Days

“When you hoe goose grass from the cotton for hours and hours with the hot Texas sun beaming down, pick 400 pounds of cotton from dawn to dark, ride the plow pulled by 6 horses from sun to sun, gather corn by the wagon load, and then hand scoop it into the barn, when you do all these things or combinations of them for days and days and weeks and weeks, you can acquire supreme motivation to get away from what becomes detestable drudgery.

. . . You got up in the dark, ate your breakfast and got to the field by daylight. The cotton could be wet with a chilly dew, which could wet your clothes, but worst of all its softened your fingers so the shape point on the cotton burrs pricked your fingers until they might bleed, but you kept on picking. In a little while the sun would come up and drive the dew away, then the burr points would get sharper, but you kept on picking.

In Central Texas, even in good cotton years, the cotton plant was typically 14 to 20 inches high, which meant you stooped over as you picked until your back ached unmercifully, then you would straighten up briefly and very briefly, because you didn’t have much time to spare if you were going to pick 250 to 450 pounds per day. As you momentarily straightened up, your back would hurt a little differently, then stop, so bend back over, and get with it, no loafing here and mind you all this time your hands are flying over the cotton plant picking the cotton as rapidly as possible. And you are pulling a 8-foot long cotton sack whose weight as you stuff it with cotton will finally increase to 50, 75, or 80 pounds.

To relieve your cramped back you put on your knee pads and crawled through the field all the time picking cotton as fast as you can.

The knee pads may have been “store bought,” i.e., they were of heavy leather lined with felt, or they may have been heavy “ducking cotton cloth pads. Mama had made and stuffed with cotton. Store bought leather knee pads or the “home made” type, the leather straps on the heavy cotton strings holding them on would, after an hour or so feel like it was cutting into the back of your leg, and your knee cap would alternately feel numb or like it was being pushed through your leg, now all the time your hands are snatching cotton as fast as possible. After an hour or so, you break into a good country sweat. . . . It is not unusual for your clothes to have white salt encrustations left from sweat evaporation as the day wears on.

Finally, the cotton sack gets almost full, you shake the cotton down, push it down by hand as you are not to waste time by making unnecessary trips to the wagon.”

“We were left poor after the war. Cotton was the most marketable product by which we could raise money. Its high value induced us to devote our attention to its production to the exclusion of all other crops, thus neglecting home supplies. We could, at 20 cents per pound, with a disorganized labor, realize some money in its production, but by paying a high rate of interest for money to defray the current expenses of the farm, we became involved, and have continued to raise cotton, with the hope of meeting our obligations, but find ourselves sinking deeper and deeper in our embarrassments, with each revolving year. The price has gone below the usual cost of production. We are left with our farms going to dilapidation – our homes are without supplies – and we are growing poorer from year to year.”

From: Spratt, John Stricklin. The Road to Spindletop, p. 74.
The Causes and Effects of Tenant Farming in Texas

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<tr>
<th>Causes</th>
<th>(Applied to)</th>
<th>Effects</th>
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<td>Supply of labor</td>
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<td>Profit Motive</td>
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<td>Plantation Owner</td>
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<td>Freed Slave or Immigrant</td>
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<td>Factors of Cotton Production</td>
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<td>Role of Technology In changes</td>
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LESSON 5

TEXAS BOOMTOWNS:
THE IMPACT OF OIL DISCOVERY ON A COMMUNITY

INTRODUCTION
One of the most significant economic discoveries in Texas history began on January 10, 1901 with the eruption of the oil well at Spindletop, near Beaumont. The enormous impact of the potential capacity of this well, estimated at from 35,000 to 100,000 barrels per day, challenged the imagination. A new era had dawned in the oil industry and this discovery moved Texas from a rural state with an agricultural base into the petroleum and industrial age. The rush was on to make new discoveries throughout the state; the "boom" was on!

As other major oil fields were discovered, many established Texas towns flourished with incredible growth and new towns were developed. The discovery of oil triggered a flood of speculation in the area. The "boom" included the rush of hundreds of wildcatters looking for a piece of the action and thousands of people looking for jobs. This onslaught of humanity was followed by the need for a huge increase in services, supplies of all kinds, and oil-related manufacturing and industries — pipelines, oil-field equipment, storage facilities, refineries and transportation. The economy of Texas would never be the same.

The majority of the "boom" areas were small farming communities near oil discoveries and the infrastructures of these communities were inadequate to handle the demands of population increases with such major proportions. There were few lodging establishments available and few places to eat. People lived in hastily constructed shacks or slept in their cars. There were long lines everywhere — and the opportunities for economic gains (profits) were plentiful.

Economic Reasoning: This lesson will examine the law of supply (the ability and willingness of industries to produce products) and demand (the desire and ability of consumers to buy products) using the boomtown (a city of rapid economic growth attracting many new residents) phenomena resulting from the discovery of oil as a base. Students will learn economic terms such as goods, services, and profit. They will explore motivations that lead to entrepreneurship and study the relationship between demand for goods and services and the rise in prices.

(See economic terms listed in the glossary for more information on the concepts above.)

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Analyze the impact of economic phenomena within the free enterprise system, such as supply and demand, profit, government regulation, and world competition, on the economy of Texas. (7.13B)

Trace the development of major industries such as ranching farming, and oil that contributed to the urbanization of Texas. (7.12B)
Define the impact of “boom & bust” and trace the boom-and-bust cycle of leading Texas industries throughout 20th century, including farming, oil and gas, cotton, cattle ranching, real estate and banking. (7.7A)

Explain the political, economic, and social impact of the cattle and oil industries and the development of West Texas resulting from the close of the frontier. (7.6B)

Explain the changes in the types of jobs and occupations that have resulted from the urbanization of Texas. (7.12C)

Analyze the impact of national and international markets and events on the production of goods and services in Texas. (7.13A)

Evaluate the effects of scientific discoveries and technological innovations on the use of resources such as fossil fuels, water, and land. (7.20D)

Differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas. (7.21A)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)

Use social studies terminology correctly. (7.22A)

**ECONOMIC CONCEPTS**
Supply and Demand
Goods
Services
Boomtown
Price
Production
Profit
Entrepreneur

**HISTORICAL CONCEPTS**
Significant events that shaped history
(Spindletop/discovery of oil)
Economic impact of the oil industry
Impact of “boom and bust”
Migration of population

**CRITICAL QUESTIONS**
1. When a community experiences a sudden burst of growth in population (boom), what economic and social problems can develop?
2. What is the relationship between supply and demand and the increase/decrease of prices?
3. How does an economic problem – i.e. an increase in demand for a product or service – impact people’s creativity and entrepreneurship? Is necessity really the “Mother of Invention”? Why or why not?

**LESSON DESCRIPTION**
In this lesson, students will examine events from “boomtown” experiences following the discovery of oil in Texas communities. Students will look at the factors of increased
demand on limited supplies of goods and services and examine the relationship between price and quantity.

TIME REQUIRED
1 class period

MATERIALS
Copies of Attachment 1 (Readings A – G)
Suggested Web sites:
  • Texas Energy Museum, Beaumont http:www.texasenergymuseum.org/
  • Handbook of Texas Online
    http:www.tsha.utexas.edu/handbook/online/index.new.html

PROCEDURE
1. Ask students to brainstorm what goods and services would be needed in a community that was experiencing tremendous population growth in a very short amount of time. Students should list things like food, shelter (housing), water, etc.
   *After the discovery of Spindletop, the town of Beaumont grew from a city of 9,000 to a population of 50,000 within three months. 
   *Before oil was discovered in Breckenridge, the population was around 600 (1918). By mid-1919, the population had grown to 30,000 people.
   *In February of 1931, Longview had a population of 5,000. After the first oil discovery, the population doubled within two months.
2. Have the student identify those things on the list that would be considered goods (things we can use, touch, and see). Then ask them to identify things that would be considered services (activities people perform for others). After the student lists have been generated, ask them to rank order those items from each list that they would deem most important.
3. Divide the class into small groups. Give each group a handout of the readings from the boomtown experiences (Attachment 1). Note: There are 6 readings; for groups of three, each student can examine two of the readings and share information with other group members.
4. Using the information provided, each group will answer the following questions:
   a. Based on the readings, what evidence do you see of goods or services that have a limited supply?
   b. What factors caused an increased demand for goods and services?
   c. What occupations developed as a result of the sudden increase in population after the discovery of oil?
   d. Examine the lists generated by the class of the most important goods and services that are needed? Are the important goods and services the same as those indicated in the readings?
   e. Give examples from the readings of entrepreneurship? Can you find examples of profit motives in the readings? If so, what?

CLOSURE
Students will pretend that they live in community that is about to experience a huge boom in population. They are in a fictional town of 125 people in the Texas Panhandle in Floyd County close to highway 70. Oil has been discovered and the population is expected to reach 1000 people within two months. They should assume that the small
town has one gas station that also sells some groceries – mostly milk and bread. Working in small groups they will address the following problem areas facing the school and city government leaders as a result of this rapid growth: lack of sufficient city government services such as a sufficient water supply, adequate police and fire protection, and an adequate sanitation system. They will also look at increased enrollment in the schools, lack of sufficient places for lodging, and the need for eating establishments. Students will look specifically at the types of goods and services that their community would need. They will then generate a list of potential actions that would help the public deal with the increased population and the “boom” in their community.

EXTENSION

1. Ask students to research the history of specific communities during the boom periods after the discovery of oil. A good source of information is the Handbook of Texas online – http://www.tsha.utexas.edu/handbook/online/index.html Communities that might be included: Beaumont, Sour Lake, Batson, Saratoga, Longview, Kilgore, Tyler, Gladewater, Joinerville, Corsicana, Ranger, Breckenridge, Cisco, Desdemona, Wichita Falls, Electra, Burk Burnett, Borger, Pampa, Amarillo, Snyder, Colorado City, San Angelo, Mexia, Midland, Odessa, Kermit, Wink, McCamey, or other boombtowns.

2. Look at current communities in Texas that are experiencing a rapid increase in population. Explore what is motivating the growth. What are the current supply and demand issues for these communities? What businesses are seeing rapid growth as a result of the increased population? What critical problems do the communities face?
Reading A:
“Beaumont looked like circus day, every day, with map vendors and peddlers of souvenir bottles filled with oil crying their wares; ...”

Lines in front of cafes were a block long; grocery stores never closed; in fact, night and day meant little, for men would set out at midnight with lanterns to search for “gas bumps” and indications of oil. Unable to find a place to sleep, two men bought a mattress and placed it on the sidewalk on the principal street. A man, flipping through a roll of $100 bills, came across a “ten-spot,” which he tore up with the remark, “Small change, what are you doing here” A woman who owned a little truck patch and a few hogs for which she hauled slop from town in two barrels on a dilapidated wagon leased her land for a fortune. ...”


Reading B:
Excerpt from: Oral History Interview, H. P. Nichols, Batson.
“Those who were at Beaumont in the early days will recall the trouble of finding a place to rest. My first three nights in Beaumont left an indelible impression upon my mind. I paid three dollars per night to sleep in the loft of Broussard’s livery barn. The bed consisted of a limited amount of straw, covered with a tarpaulin. It was a democratic bunch of men that roosted in Broussard’s stable. Millionaires and working men tried to get a few hours of sleep. . . .

In visiting the joints, I met a young fellow by the name of James, and he suggested that I talk with his mother about a roosting place. I made a deal with Mrs. James. I could sleep in her back hall at two dollars per night, if I would furnish cot and so forth, fold it, and store the cot and other personal chattels on the back porch each morning. No extra charge was made or credit granted for the horde . . . of mosquitoes. I had to go to a neighborhood barbershop each morning to wash my face, but to eliminate this slight inconvenience, I invested in towels and washed under the outside city water tap.

The city water of Beaumont back in those days was soupy. Its odor clearly indicated the presence of alligators, bullfrogs, and fish. Everyone soon learned if the water was used for drinking purposes that it caused severe stomach cramps, or what was locally known as Beaumonts. Toilet facilities being limited, a bad case of Beaumonts called for biddings as high as fifty cents for the immediate use of a toilet. We didn’t have pay toilets in those days. Most of them were outside. Later, I bought water for drinking purposes. My recollection is that water was brought into Beaumont by barge, from some point up the Neches River.


Reading C:
“Men walked the streets or slept in the sawdust piles at the mills because they could find no other accommodations. Every one of the squalid little hotels was filled to capacity. No man had a room alone. Every hotel room had from four to twenty cots, and the halls and lobbies were lined with cots or bare mattresses. Men slept on pool tables, in barber chairs, on roof tops, in pup tents, pyramidal, wall tents, and in lean-to
shacks made of flimsy lumber. They slept on porches, in store windows, and wherever they could find a place to lie down.

   There might have been a dozen baths in Beaumont's hotels, but no one recalls them. Men who had been reared to fastidious surroundings went for weeks without bathing rather than use the filthy tubs in barber shops.

   Beaumont's cistern water was not potable. Doctors warned the thirsty to drink whisky or boiled water. This led to a new business. On street corners vendors were selling boiled water out of wash tubs for a nickel a drink and gallon jugs for $1.

   ... Many families opened soup kitchens on their porches."


Reading D:
Excerpt from: “The Sour Lake Oil Field,” Houston Daily Post, June 7, 1903.

   ... Property in the "Old Townsite" has advanced with wonderful strides within the past ninety days. City lots could have been bought in this tract some eighty or ninety days ago for from $300 to $500. Those fortunate enough to hold on are reaping the benefit of the high prices at $3,000 per lot, measuring fifty by ninety feet, and there is a strong probability of all this property coming in as proven territory, the prices will doubtless reach as high as $10,000 or more per lot.

   ... Owners of property on the boulevard are renting the ground to merchants for the purpose of erecting stores at $700 per annum, payable in advance and reserving the right to eject the renters from their premises and moving the houses to make room for the derricks without warning ....


Reading E:

   "...It is interesting to see how these men can adapt themselves to the conditions that be, while waiting for better facilities, accommodation and conveniences. The tents supplanted the open air camps. Now clean buildings are taking the place of tents and a little later on, more expensive structures will knock the cheap buildings out and each change in the methods of living and doing business has been an improvement. In certain sections of town, the numerous places which furnish sleeping apartments and shelter, restaurants, law and real estate offices, eating stands, dry goods stores, etc., look somewhat like a military encampment. In the streets also are many novel sights, such as piles of lumber, portable lunch wagons, all kinds of vehicles [that is, carriages, wagons and buggies], trash, debris, etc., and of course, those that come to see the crowds of people that swarm here day and night ... can appreciate the real situation and understand why board, rents, and everything else have been so high ... .

   As the freight train comes in, it looks like some big curiosity shop as it discharges its loads of lumber, iron safes, household and kitchen furniture, dry goods, groceries, fruits, melons, chickens and various other articles too numerous to mention. In short, the whole situation is one of interest and the scene of one of rushing activity. . . .

Reading F:
Excerpt from: Oral History Interview, James Donchoe, Batson.

"The Caledonia Boarding House was a two-story house. It was run by a Scotsman by the name of Simpson. There was some ten or twelve rooms for sleeping, and the rooms were about twelve feet long and about eight feet wide and the furniture consisted of two cots, and if you had a suitcase and other things, you had to put it under the bed. Then, if it was a bad rainy night or daytime, you would lay there in bed and dodge the raindrops from the leaks. There was mud in the front of the boardinghouse and all around, and when they went to sweep the floor, they taken a hoe and raked the mud out of the dining room.

Twenty-six dollars a month. That was the regular rate. For room and board. I was drawing ninety dollars a month. And I might say the buying power of a dollar then was much greater than now. They served good, substantial food for working men, but I cannot say as to how well cooked and how clean it was. It was not.

And the sanitary conditions was terrible. No sewers, nothing. And I have seen in the ditches and along the pathways and wherever low places would be water, and that water would lay there until a green scum would come over it. I have often wondered why we all didn't die of the cholera. And no screens, and flies by the billions. No protection at all."


Reading G:
"Safe drinking water was scarce in boomtowns because utilities were usually built long after town lots were sold and settled.

Dr. D.W. Davis: Our water in Beaumont was cistern water in 1902. Everybody had a cistern and we had to put a strainer on the strain the wiggletails off, and we couldn't always do that. We had a great deal of dysentery, a great deal of typhoid fever, as well as other diseases. Malaria was very prominent. Water was worth more than oil. You could buy water here, but their containers would get contaminated. It was hard to keep them sterile.

Allie V. Scott: Drinking water was one of the biggest problems in McCamey in the 1920s. Even if you boarded, you had to buy your own water. It was one dollar a barrel. They didn't have running water. It was hauled from Alpine by the railroad and unloaded here. There were all kinds of water trucks. They filled up your tank regularly, maybe once a week.

W. Horace Hickox: We didn't even have a water system in Borger. We had thirty-gallon galvanized water cans that we would get full of water. The water man, he'd possible haul seven hundred gallons of water at a time on his wagon. When he'd come by, he'd stop and we would go out and fill our thirty-gallon water tank. That was our drinking water, our cooking water, our bathing water, if we bathed at home. Most of the men at that time would go downtown to the barbershop."

Suggested Additional Resources


SUPPLEMENTAL INFORMATION

HISTORY OF TEXAS OIL EXPLORATION

The history of oil exploration within Texas is directly related to the story of Texas land. Tradition says that one John A. Veatch arrived in what is now East Texas but which was then a province of Mexico. After meeting certain requirements, he was authorized as an immigrant to select a league of land. Veatch, chose his property in two parts: one three miles south of the present city of Beaumont, and the other near Sour Lake in present Hardin County. Seventy-five years later, two of Texas’ greatest oil discoveries were made almost on top of his two tracts of land. Ironically enough, Veatch is reported to have believed that oil existed in those localities, and for that reason, consistently declined to sell.

The first oil well in Texas was probably drilled near Saratoga in Hardin County in the early 1860’s, but the first oil discovered in commercially-suitable quantities was produced in Nacogdoches County 20 years later. The first commercial use of oil appears to have been as a tick remover.

The first important oil production in Texas occurred in the Corsicana area in 1895. The Corsicana field was of such importance that it attracted numerous geologists and operators in Texas.

Before the Corsicana field came in, however, efforts had been made to develop the Beaumont locations as an oil-producing area. Nearly ten years passed before the famous Lucas gusher came in producing a spectacular 4,000 barrels a day. Other wells were drilled in the same area, and the Texas coast suddenly became a paradise for oil developers.

The next major development in Texas oil history came in that same coastal region. In 1902 at Sour Lake in Hardin County, a gusher came in, and it is reported that some wells have produced 10,000 barrels a day in this field. Drilling in this field had been going on since 1893. When the 1902 gusher was drilled, the supply of oil suddenly exceeded the demand, and oil was being sold for 15 cents a barrel. An average 1957 price was about $2.85 per barrel.

In 1903, the Batson field in Hardin County was discovered. The Permanent School Fund experienced its first sensation from this field. A surveyor discovered a scrap of unsurveyed school land near the oil field and filed to purchase it at $10 per acre, thinking the General Land Office was unaware of its true value. To the contrary, the chief clerk of the Land Office held out for $1,500 per acre. He received what he asked for, and the School Fund profited by $23,025 from the sale.

One of the most productive oil fields in Texas was developed at Humble in January, 1905. The well that brought in the field began producing at 8,500 barrels per day.

Matagorda County caused some excitement in 1908. Its best producer yielded 7,200 barrels per day, but the field soon declined.
About 1910, exploration in Wichita County was active. Development moved at a snail’s pace originally, but discoveries near Burk Burnett in 1912 and 1917 resulted in renewed attempts, and a field that was regarded as shallow suddenly became one of extensive resources. The field was even extended into the channel of the Red River. In general, the land was in the hands of small farmers, so this was the little man’s field.

Far to the south, the Goose Creek field in Harris County had been attracting attention since 1907. By 1911, a well on the edge of San Jacinto Bay was reported to be flowing several hundred barrels a day. In 1913, the Legislature enacted into law at the recommendation of Commissioner of the General Land Office J. T. Robison a plan whereby San Jacinto Bay, which was owned by the State, could be opened for development on a royalty basis. The first permit for this purpose was issued on August 18, 1913.

The first royalty, $33.97, was paid to the General Land Office in April, 1914. Six years later, royalties from this source had increased to $600,000.

From: History Of Texas Land, Austin, 1958, p. 3-5.
LESSON 6

DEPRESSION, DROUGHTS,
AND
DUST BOWL

INTRODUCTION
Texas has experienced droughts as long as records have been kept. As recently as the late 1990s, Texas lost much of its agribusiness profits to a drought. However, the most famous drought occurred in conjunction with the economic depression of the 1930s known as the Great Depression. At that time, farmers practiced few techniques designed to conserve the soil of Texas, including crop rotation or water conservation. When an eight-year drought began in 1931, farmlands in the panhandle of Texas were devastated. Dry topsoil and sand blew clouds of dust that left people claiming they had seen a “black blizzard.” The Panhandle of Texas along with parts of five other states became known as the Dust Bowl. Many farmers were forced to desert their homes and seek jobs in the cities where conditions were no better.

Economic Reasoning: Students should understand the definition of depression (a time of acute shortages and a large number of unemployed workers.) They should know that in the 1930s, all of America was involved in the Great Depression (a long-term depression which included bank failures, little available cash, and one in four workers out of a job). Also, they should understand that along with the depression, agri-business (farming and ranching), a huge industry in Texas, experienced an eight-year drought (an extended period of time without rain) that turned much of its prime topsoil into dust. Finally, students should understand that the “boom” time of the early 1900s led to the “bust” of the 1930s (boom-and-bust cycle). The 1920s had been an era of economic prosperity for much of America. It left people unprepared for the depression in the economy that began in 1929.

(See economic terms listed in the glossary for more information on the concepts above.)

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Define the impact of “boom and bust” and trace the boom-and-bust cycle of leading industries throughout the 20th century, including farming, oil and gas, cotton, cattle ranching, real estate and banking.

Analyze the impact of economic phenomena within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas. (7.13B)

Analyze the impact of significant industries in Texas, such as oil and gas, aerospace, and medical technology on local, national, and international markets. (7.13C)

Pose and answer questions about geographic distributions and patterns in Texas during the 19th and 20th centuries. (7.8B)

Explain ways in which geographic factors have affected the political, economic, and social development of Texas. (7.10B)
Explain economic factors that led to the urbanization of Texas. (7.12A)

Trace the development of major industries that contributed to the urbanization of Texas. (7.12B)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)

**ECONOMIC CONCEPTS**
- Depression
- Boom-and-bust
- Agribusiness

**HISTORICAL CONCEPTS**
- Great Depression
- Droughts

**CRITICAL QUESTIONS**
1. What factors led to the period known as the Dust Bowl?
2. How were farmers in Texas affected by the Great Depression and the Dust Bowl?

**LESSON DESCRIPTION**
Students will analyze a poem and a song and use research in the library and on the internet to produce a skit about life during the 1930s in Texas.

**TIME REQUIRED**
Two to four class periods

**MATERIALS**
- Attachment 1
- Attachment 2
- Websites:
  - http://www.weru.ksu.edu/pics/dust_storms/
  - http://www.memory.loc.gov

**PROCEDURE**
Ask students if they have ever seen a sand or dust storm? (West Texas still experiences many of these every year, and the Dallas area has seen its share in the past.) Explain to them that dust and sand seep under closed windows and can get in your hair and mouth if you are outside. All in all, the storms are pretty miserable to live through. Then, tell students that they will be studying a time when many Texans saw a long period of these storms.

1. Describe for students what life was like in the Great Depression (people unable to get cash, banks failing and closing their doors, lack of food and jobs, overall despair and hopelessness.) Include information on how poor farming techniques and the eight-year drought brought disaster to the region known as the Dust Bowl. (Information can be found under the first website above.) The teacher
may wish to have students read some of the accounts of individuals who lived during this time. (See People and Events in this website.)

2. Have students locate the five states that experienced the Dust Bowl. (See map below or the states are shown on the website under Maps.)

3. Next, have students complete the attached activities that require them to analyze a poem and a song in relation to the Great Depression and Dust Bowl.

4. Review with students the economic factors in this lesson. (See Economic Reasoning above.)

5. Divide students into groups of four or five and ask them to further research the impact of the Great Depression and/or Dust Bowl on Texas and produce a skit using all members of the group to depict life during this era. (Some may be farmers, others could depict minorities in Texas or office workers in cities, etc.)

**CLOSURE**

Students will perform their original work for the class. Finally, the teacher might ask students if they think a time like this might occur again in America? Why or why not? Has Texas experienced a drought in their lifetime? (yes, late 1990s) Why do droughts today not end up in a dust bowl? (better farming techniques, chemical fertilizers, and water management)

**EXTENSION**

1. After students research the Dust Bowl era on the computer or in the school library, they may be asked to compile a list of websites for the class or produce a collage or mobile of the Dust Bowl.

2. Students could develop a timeline of the Dust Bowl era. (If an illustrated timeline is the assignment, images may be found on the second website listed above or produced by the students themselves.) Students having access to Tom Snyder's Timeliner may use that to design their timeline.

3. Students may view excerpts from the film, Grapes of Wrath (the first few minutes gives an excellent view of Dust Bowl conditions) or analyze artwork from the Depression era. (Website http://www.nara.gov/exhali/newdeal/newdeal.html has many sources of art and information as does the Library of Congress site listed under Materials. Dorothea Lange is well-known for her photographs of the Depression era.)

4. Students could write journal entries or narrative essays as if they were farmers or the families of farmers living through the Dust Bowl.

5. Student could interview people who experienced the Depression and compile an oral history collection to donate to their library or to an elementary school library for the fourth grade Texas History course.
(Parts of Texas, Oklahoma, Kansas, Colorado, and New Mexico were in the Dust Bowl.)
ODE TO WALT WHITMAN

(Following is an excerpt from a poem by Stephen Vincent Benet which depicts Walt Whitman returning to America forty years after his death to see America in the depths of the Great Depression.)

"Over the great plains of the buffalo-land,
The dust-storm blows, the choking, sifting, Small dust.
The skin of that land is ploughed by the dry, fierce wind
And blown away, like a torrent;
It drifts foot-high above the young sprouts of grain
And the water fouls, the horses stumble and sicken,
The wash-board cattle stagger and die of drought.
We tore the buffalo's pasture with the steel blade.
We made the waste land blossom and it has blossomed.
That was our fate; now that land takes its own revenge,
And the giant dust-flower blooms above five states."

What does the poet mean by "the skin of the land"?

How is that skin "ploughed"?

What are "wash-board cattle"?

Why does he say the land took revenge? Revenge for what?
Brother, Can you Spare a Dime?

(Following is an excerpt from the song, “Brother, Can you Spare a Dime.” It was written by E.Y. Harburg and the music was composed by Jay Gorney in 1932.)

They used to tell me I was building a dream,
And so I followed the mob—
When there was earth to plough or guns to bear—
I was always there—right on the job.

They used to tell me I was building a dream
With peace and glory ahead—
Why should I be standing in line
Just waiting for bread?

Once I built a railroad, made it run,—
Made it race against time.
Once I built a railroad,
Now it’s done—
Brother, can you spare a dime?

What is the “dream” referred to in the first line?__________________________________________________
__________________________________________________

Which jobs is he referring to in the first stanza?__________________________________________________
__________________________________________________

What do you feel about this era as you read these lines?______________________________________________
__________________________________________________
LESSON 7
THE GREAT DEPRESSION:
THE ECONOMICS OF SURVIVAL

INTRODUCTION
Perhaps the most severe economic disaster in Texas since the Civil War was the Great Depression (see glossary). This disaster started in 1929 (see glossary) with the crash of the stock market. Conditions were difficult for the people of Texas in 1930, but they worsened during the next two years. The economy was a critical focus for all of society during this time period. Although Texans suffered greatly during the depression, conditions were generally better than the national average.

For the first few months of the Depression, friends and relatives generally assisted people or they were helped by local charities. As the economic difficulties continued, these resources were exhausted. The economic slump seemed to hit the lowest point in 1933. People began to turn to the government for help. Franklin Roosevelt was elected president in 1932 and his administration began to search for ways to solve the nation's problems. Under the New Deal (see glossary) initiatives developed and implemented by the Roosevelt administration, a number of different programs were put in place. After this year, the economy began a slow, gradual improvement.

The average per capita income in 1929 was $462 for Texans. By 1933, it had dropped to $233. The per capita income had reached $401 by 1939. (1) This Great Depression era saw many changes for Texans, as well as for the rest of the nation.

The period of prosperity that Texans saw in the 1920s had turned to increased unemployment, hunger and homelessness for thousands of people. "Building construction came almost to a standstill. Cotton, which sold for 18 cents a pound in 1928, dropped to five cents in 1932. East Texas oil, which was selling for 60 cents a barrel in 1930, fell to 5 cents a barrel; steak sold for 18 cents per pound; milk sometimes cost as little as 4 or 5 cents a quart; and hamburgers cost a nickel." (2)

Texans were challenged at every turn to survival such an economic downturn. Many people strived to make the best of difficult situations.

Economic Reasoning: Students need to understand the concept of an economic depression and explore the many ways that the everyday lives of people were affected during the Great Depression. Students will examine the relationship between the decreases in consumer spending and unemployment. The spiraling effect of a depression – workers who lose jobs begin to spend less and in spending less, cause other workers to lose jobs – will be examined. Students need to see the relationship between the large reduction in the amount of money in circulation and the massive loss of jobs. People try to cut back on spending when a recession hits, which lowers the amount of economic activity. Students will learn the following economic terms: income and savings, economic interdependence, and supply and demand. Students will look at the number of bank closings in Texas for a ten-year period.
TEXAS ESSENTIAL KNOWLEDGE AND SKILLS

Analyze the impact of economic phenomena within the free enterprise system, such as supply and demand, profit, government regulation, and world competition, on the economy of Texas. (7.13B)

Define the impact of “boom & bust” and trace the boom-and-bust cycle of leading Texas industries throughout 20th century, including farming, oil and gas, cotton, cattle ranching, real estate and banking. (7.7A)

Analyze the impact of national and international markets and events on the production of goods and services in Texas. (7.13A)

Differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas. (7.21A)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)

Use social studies terminology correctly. (7.22A)

ECONOMIC CONCEPTS  HISTORICAL CONCEPTS
Depression  Great Depression
Income  New Deal
Saving
Interdependence
Demand
Supply

LESSON DESCRIPTION
Students will analyze the relationship between reduced consumption and the level of activity in an economy. They will examine the differences between the prices of products (especially groceries) during the depression and the current market prices for the same items.

TIME REQUIRED
One class period -- plus outside homework.

MATERIALS
Make a transparency master of Visual 1 (Bell County, Texas Contest).
One copy will be needed for each student of Attachment 1.
One copy will be needed for each student of Attachment 3.

PROCEDURE
1. Ask students to bring in receipts from home that list grocery items purchased by families from the last week. Working in small groups, have students analyze these documents and make some generalizations on the average prices of items
in their community grocery stores. They should look at basic staples such as flour, sugar, milk, coffee, bread, etc. They might also look at pre-packaged items, or items that they can simply bring home and serve or cook with very little effort – i.e., frozen pizza.

2. Students should then imagine that a major economic downturn takes place. They should look at the information gleaned from the receipts and determine as a group what items might be eliminated as a result of their family having less to spend. What kinds of items would be the first eliminated? What would be considered “basic necessities” in a depressed economy?

3. Present a brief overview or background of the stock market crash of 1929 and the Great Depression, requiring students to know the significance of these two major economic events in American History.

4. Use the transparency (Visual 1) outlining a shopping contest that took place in Bell County, Texas in 1931. Discuss the prices noted on the visual.

5. Give each student a copy of Attachment 1 – Grocery Items – Today’s Prices. Ask the students to do a “scavenger hunt” at the local grocery store and list the current price of each item. They are to compare the price differences that they find and determine what the current cost would be for the same products purchased in Bell County in 1931. (Note: Using the web site: http://www.eh.net/ehresources/howmuch/dollars.php students will find that the $1.00 spent in 1931, would buy $11.31 worth of groceries in 2000. Attachment 2 gives the prices from a grocery store in Brownsville in early May of 2001. Teachers might choose to use this listing for comparison instead of having students go to the local grocery store.

6. After doing an analysis and comparing what the price differences are, ask students to determine the total cost of their bill in today’s prices. Can you get the same amount of products today for the $11.31 noted on the web site? Why or why not?

7. Ask students to analyze the list again. What products (if any) would no longer be needed? Why? What kinds of items are missing in 1931 that we would consider “basic” today? Why? Do you see any evidence of the purchase of ethnic foods? Would that be different today? (Refer students to the first activity – did they have evidence of the purchase of ethnic foods on their list from analyzing grocery receipts?) What kinds of foods that are purchased in the local community today would be considered ethnic? Have the basic markets changed since 1931? How? What has supported the changes? How has the local community changed? (Teachers may want to relate the changes in communication and transportation.)

8. Challenge students to see the relationship of new technologies to the economic differences between the markets of 1931 and the markets today.

9. Give each student a copy of Attachment 2 showing the numbers of banks in Texas and their resources between 1929 and 1939. Students are to transfer this information to a line graph. They should then analyze their line graph to determine both the high period of banking in Texas (with the number of banks and their resources) and the low year in Texas. Ask: What would be considered the low point of the Great Depression in Texas based on this line graph? What is the relationship between the lack of money in circulation and the lowering of prices (as seen by the Bell County contest)?
CLOSURE
Ask students to list the amount of money they typically receive per week from their parents. Some students will have a weekly allowance and the amount will usually be consistent. Other students will be given money “as needed”, but ask them to try to come up with what would typically be “an average”. Using the web site, noted in number 5 above, ask them to convert their allowance to the 1931 price to see how much spending power that would have during that time period. Then have them see what the converted amount would be in 1941, 1951, 1961, 1971, 1981 and 1991. They should submit their findings in a graphic that they design. Have them do an analysis of their findings and answer the following question: At what period of time would you have the greatest spending power using the same level of income you have today?

EXTENSION
1. Have students interview older residents who lived through the Great Depression. Compile an oral history from these interviews to be presented to the library, the local historical society, or a fourth grade class at an elementary school.
2. Ask students to look at major products that we purchase today, such as cars, washing machines, kitchen appliances, etc. Have them search the Internet and compare the prices of these items with what they would have cost in 1931.
3. Students can interview a variety of people in the local community that operate businesses. They should ask about the issue of an economic depression, trying to determine answers to the following questions: Would we have a depression today the same way that one developed in 1929? Why or why not? What economic safeguards do we have today? What elements of government control? What do we have in place today that was not in place in 1929? What would be the role of technology today?
4. Using the Piggly Wiggly ad from 1963, have students predict what the same items would cost today. They can look at the current prices in the local grocery store to determine differences.
During the Great Depression, A Bell County woman entered a Temple Daily Telegram contest to see how many grocery items could be bought for one buck.

Here's what her winning dollar bought in January 1931.

"Three pounds of potatoes, one pound of beans, one pound of coffee, one loaf of bread, one jar of peanut butter, one bar of soap, one pound of onions, a jar of jelly, a package of tea, a can of tomatoes, a sack of potato chips, three pounds of yams, a box of crackers, six bananas, five oranges, a can of sardines, a box of salt, a box of soda, a can of pork and beans, a can of potted meat, a box of matches, a box of soap powder, a bar of candy, a can of milk and a package of gum."

Be mindful that during those hard times, Texans could buy bread for as little as 2 ½ cents a pound, milk for 7 cents a quart and steak for 12 ½ cents a pound.

Grocery Items – Today’s Prices

Potatoes (per pound) __________
Beans _______________________
Coffee _______________________
Jar of Peanut Butter __________
Bar of Soap ___________________
Pound of Onions ______________
Jar of Jelly ___________________
Package of Tea _______________
Can of Tomatoes ______________
Sack of Potato Chips __________
Pound of Yams ________________
Box of Crackers ______________
Six Bananas _________________
Five Oranges ________________
Can of Sardines ______________
Box of Salt ___________________
Box of Soda _________________
Can of Pork and Beans _________
Can of Potted Meat ___________
Box of Matches _______________
Box of Soap Powder ___________
Grocery Items – Today’s Prices (May 2001)
Items list from a grocery store in Brownsville, Texas

Potatoes (per pound) __$.69__
Beans  $.54 lb.
Coffee  __$2.24__ can
Loaf of Bread  $.68
Jar of Peanut Butter  $1.79
Bar of Soap  $1.79 for 4 bars
Pound of Onions  __$.79__
Jar of Jelly  $.99
Package of Tea  ½ LB. $3.99
Can of Tomatoes  $.55
Sack of Potato Chips  $.89
Pound of Yams  $.66
Box of Crackers  $.76
Six Bananas  (2 LBS.) $.68
Five Oranges  (3 LBS.) $.89
Can of Sardines  $.57
Box of Salt  $.38
Box of Soda  $.50
Can of Pork and Beans  $.38
Can of Potted Meat  $.29
Box of Matches  3 BOXES FOR $1.98
Box of Soap Powder  $.98 (26 OZ. SIZE)
Bar of Candy  $.75
Can of Milk  $.48
Package of Gum  4 pkgs. $1.00
Number of Bank Closings in Texas (State Banks)
1929 – 1939

<table>
<thead>
<tr>
<th>Date</th>
<th>No. Banks</th>
<th>Total Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 31, 1929</td>
<td>699</td>
<td>332,534</td>
</tr>
<tr>
<td>December 31, 1930</td>
<td>655</td>
<td>299,012</td>
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<tr>
<td>December 31, 1931</td>
<td>594</td>
<td>235,681</td>
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<td>December 31, 1932</td>
<td>540</td>
<td>208,142</td>
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<td>December 31, 1933</td>
<td>489</td>
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<td>December 31, 1935</td>
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<td>December 31, 1936</td>
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<td>228,877</td>
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<td>December 31, 1937</td>
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<td>December 31, 1938</td>
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<td>217,944</td>
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<tr>
<td>December 31, 1939</td>
<td>395</td>
<td>235,467</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bank of Dallas
(Total of Resources given in thousands of dollars.)
Adapted from: Texas Almanac, 2000
FOR YOUR THANKSGIVING DINNER SHOP

PIGGLY WIGGLY

TURKEYS 39¢ 33¢

PUMPKIN 9¢

CRANBERRY 9¢

SAUCE 19¢

COFFEE 59¢

CELERY 9¢

CRANBERRIES 19¢

EGG NOG 49¢

SUGAR $1.19

ROLLS 21¢

Price Effective Monday — Tuesday — Wednesday, Nov. 25th - 26th - 27th.

DOUBLE STAMP DAY WEDNESDAY SHOP PIGGLY WIGGLY AND SAVE
SUGGESTED RESOURCES

LESSON 8

TEXAS CITY, TEXAS:
AN ECONOMIC DISASTER

INTRODUCTION
In the early 1900s, oil refining became the largest industry in Texas. The first refineries were located near oil fields, but they soon moved to port cities along the Gulf of Mexico. Shipping from these ports was easier than from inland refineries. In the 1920s, the petrochemical industry began. The chemical industry expanded and grew throughout the Depression years and World War II. Government contracts during the war years made both the oil industry and chemical industry thrive. This brought more than 400,000 people from rural regions into the cities for jobs. Texas City was one of these boomtowns of the 1940s.

Economic Reasoning: Students should understand the reasons for boomtowns and their rapid growth. What happened in Texas City could have happened in any of a number of coastal cities in the region. The drive to produce more and more oil and chemicals (supply) created the unsafe situation. Production was increased quickly to meet the worldwide demand for these products. The losses to Texas City included human resources, natural resources and capital (factors of production).

(See economic terms in the glossary for additional information on the concepts above.)

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Analyze the impact of economic phenomena within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas. (7.13B)

Analyze the impact of significant industries in Texas, such as oil and gas, aerospace, and medical technology on local, national, and international markets. (7.13C)

Analyze the political, economic, and social, impact of major wars, including World War I and World War II on the history of Texas. (7.7D)

Pose and answer questions about geographic distributions and patterns in Texas during the 19th and 20th centuries. (7.8B)

Explain ways in which geographic factors have affected the political, economic, and social development of Texas. (7.10B)

Explain economic factors that led to the urbanization of Texas. (7.12A)

Trace the development of major industries that contributed to the urbanization of Texas. (7.12B)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)
ECONOMIC CONCEPTS
Supply and demand
Production
Boomtown
Factors of production

HISTORICAL CONCEPTS
Urbanization

CRITICAL QUESTIONS
1. What effect did becoming a boomtown have on Texas City?
2. What role did supply, demand, and production play in this disaster?
3. How safe is Texas City today?

LESSON DESCRIPTION
Students will view a video on the disaster in Texas City, discuss the major concepts from the video, and complete activities individually and in groups. Computer activities are included if the teacher wishes to extend the lesson.

TIME REQUIRED
Two to three class periods

MATERIALS
- Video, Wrath of God: Explosion! Texas City, from The History Channel
  A&E Home Video $19.95
  327 Holly Court Williston, VT 05495
- Attachment 1

PROCEDURE
1. Ask students if they have ever been in a location hit by a tornado, hurricane, or earthquake. Have a few students relate the story of what happened to the area as a result of the disaster. Then, tell students that they will be studying another type of disaster that hit a Texas town.
2. Have students locate Texas City on a map of Texas (approximately 40 miles south of Houston). Ask students why they think a large city developed in that geographic location.
3. Then, set the scene for the video by explaining the following economic concepts. Texas City was a boomtown (a city of rapid economic growth attracting many new residents.) Its population had tripled in the 1940s as World War II and the following years created an enormous demand (the desire and ability of consumers to buy products) for chemicals and oil. A well-known motto of the time was “Better living through chemistry.” Texas City was a port with many refineries and plants to process oil and chemicals to satisfy the demand for these products. This is defined as supply (the ability and willingness of industries to produce products). Production (the process of creating goods and services) of these goods was so high that safety was not a top priority. Though many chemists knew that the chemical, ammonium nitrate, could be dangerous (it had been combined with TNT in World War II to make bombs), few people outside of the chemical industry understood its volatility. That is, until an April morning in Texas City in 1947...
4. Show the video or retell the story of the explosions in Texas City.
5. Then, lead a discussion on the economic factors discussed before the film to be sure of student understanding. Ask what a boomtown is and why Texas City would be considered a boomtown. Then, ask what role supply, demand, and production played in the disaster.

6. Next, distribute Attachment 1. Briefly discuss the factors of production and the example given before having students individually complete the activity.

7. After completing the activity, put students in groups of four or five and ask them to develop a song to any tune they choose or write a brief poem about the economic disaster in Texas City. The student will have to perform it for the class and all members of the group must participate.

CLOSURE
Students will perform their original work for the class. Finally, the teacher might ask students if they can think of a situation in the world today that is similar to Texas City in 1947? The teacher will want to differentiate between natural disasters and industrial disasters if students name weather-related phenomena.

EXTENSION
1. If a computer lab is available, have students do a Lycos search for “Texas City explosion.” Ask students to locate the site for “The Explosion; 50 Years Later, Texas City”. If computers are unavailable, the teacher may download the various survivors’ stories from this site or use the ones from the video.
   - Next, divide the students into small groups and ask them to prepare a brief scenario for the rest of the class about one survivor – who was the person, what was his/her job, where was this person when the first ship exploded, why was the person in this location, and what happened afterwards. One person from each group could relate the story to the rest of the class or be part of a panel discussion.

2. Students could develop a powerpoint presentation of the events leading to the explosion of the Grandcamp and use photos from other websites that result from their internet search to illustrate the slides.

3. Students, in groups, might present a newscast of what happened in Texas City with a “blow-by-blow account” of the two explosions.
LOSSES FROM THE EXPLOSION IN TEXAS CITY

In order to provide the goods and services that humans want in any society, certain things are required. These are known as factors of production. Factors of production include the following resources:
1. Natural – land and energy-producing resources
2. Human – labor resources including effort, knowledge, and skill
3. Capital – resources such as machines, buildings, transportation, money

Example: In order to produce an article of cotton clothing, the natural materials are the land on which the cotton is grown and the raw cotton itself. The human resources include the labor required to pick the cotton and transform it into a cloth garment by weaving, dying, cutting, and sewing. The capital resources would be the buildings, money, and equipment needed to do the transformation.

Identify the losses in the explosion in Texas City according to the three factors of production listed below. Name at least two losses under each category.

Human Resources
1. ____________________________________________________________
2. ____________________________________________________________

Natural Resources
1. ____________________________________________________________
2. ____________________________________________________________

Capital Resources
1. ____________________________________________________________
2. ____________________________________________________________

Adapted from Master Curriculum Guide for the Nation’s Schools, P.II, Strategies for Teaching Economics: Junior High School Level. JCEE, 1981, NY.
LESSON 9

WHOA! THAT TEXAS IS BIG!

INTRODUCTION
Industrialization and urbanization were not new to Texas, but these trends accelerated quickly in the years following World War II. Growth brought on by World War II resembled that of the oil boom. The state population jumped 20% and the larger cities—Dallas-Fort Worth, Houston, and San Antonio—doubled their populations.

City building is and has been one of the most significant themes in Lone Star History. In the 19th century, cities grew where transportation was available. First ports and rivers determined locations, then railroad centers brought growth. Towns with railroads gained population, commerce, and quick information, while those bypassed by rails suffered economic loss. The greatest decade of railroad building, the 1880s, coincides with the growth of many Texas towns. The railroads fixed Texas in a spatial pattern that has changed little with the advent of new technologies in transportation. Railroads interacted with the growth of industries by moving products in and out of towns. Industrial growth brought jobs, and jobs brought the population from the rural areas into urban centers.

Distinctive features of Texas cities include the physical resources available. The oil boom brought wealth and industry to Texas cities. Abundant land with few geographical barriers allowed urban areas to sprawl into suburban areas.

The urbanization of Texas is largely complete now as by the 1990s, 80% of the population lived in urban areas, with one-half of that population living in Dallas-Fort Worth, Houston, and San Antonio.

Economic Reasoning: Students should understand the reasons for urbanization (the process of city growth and development) of Texas. They should also understand that from urban areas, suburban areas have grown. This is also known as urban sprawl (land use or development pattern in which the edges of the city grow outward into the surrounding rural areas.)

(See economic terms in the glossary for more information on the concepts listed above.)

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Analyze the impact of economic phenomena within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas. (7.13B)

Analyze the impact of significant industries in Texas, such as oil and gas, aerospace, and medical technology on local, national, and international markets. (7.13C)

Analyze the political, economic, and social, impact of major wars, including World War I and World War II on the history of Texas. (7.7D)

Pose and answer questions about geographic distributions and patterns in Texas during the 19th and 20th centuries. (7.8B)
Explain ways in which geographic factors have affected the political, economic, and social development of Texas. (7.10B)

Explain economic factors that led to the urbanization of Texas. (7.12A)

Trace the development of major industries that contributed to the urbanization of Texas. (7.12B)

Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions. (7.21B)

**ECONOMIC CONCEPTS**
- Urbanization (causes and effects)
- Urban/suburban
- Urban Sprawl

**HISTORICAL CONCEPTS**
- Growth of railroads
- Development of Texas cities

**CRITICAL QUESTIONS**
1. What factors led to the urbanization of Texas?
2. What effect has urban sprawl had on the development of Texas?

**LESSON DESCRIPTION**
Students will participate in a role-playing activity about the effects of urban sprawl on Texas.

**TIME REQUIRED**
One or two class periods

**MATERIALS**
Attachment 1, Role-playing cards.
(These should be laminated and cut apart for multiple classes to use.)

**PROCEDURE**
1. Ask students if they have ever been in a traffic jam and couldn’t move? Explain that traffic jams, air pollution, and crowds are a few of the problems that big cities like Dallas/Ft. Worth experience. Then, have student brainstorm a list of advantages of living in a big city. (The teacher may want to record the ideas from students.)
2. Have students locate large urban centers on a map of Texas while the teacher explains the effects of transportation and industry on the development of these areas. (See Introduction.)
3. Next, ask students to identify some of the cities outside the boundaries of Dallas and Ft. Worth. (They should names cities such as Mesquite, Plano, Carrollton, Farmers Branch, Lewisville, etc.) Develop the term urban sprawl in relation to these cities and explain that the large metropolitan areas of Texas have many suburban cities around them with more coming.
4. Ask students what problems accompany urban sprawl? (Possible answers include destruction of wildlife habitats, pollution, water needs, more transportation, higher taxes, etc.)
5. Then, explain that they will look at the ways urban sprawl might affect different people in a hypothetical city.
6. Put students in groups of three or four and ask them to select one of their members to represent their position as determined by the role-playing card they will receive.
7. Distribute the cards, one to a group. Give the students a few minutes to develop their position.
8. Hold a mock city council meeting on whether to sell a large parcel of open land within the hypothetical city to a developer.
9. City data: The city has 100,000 people living in close proximity. Most of the workers in that city travel about 20 miles into a large urban area for their jobs, as only a few industries have settled within the boundaries of the city. There are some parks but only one undeveloped section left within the city boundaries. A housing developer is asking permission from the city council to purchase the land for future home sites.
10. Select a mayor, town council of six members, and a developer to play the different roles. Ask the mayor to convene the meeting and explain that the council will have to make a final decision on the developer's request at this meeting.
11. Have the mayor call the meeting to order and introduce the developer to the council. Have the developer request that his company be allowed to purchase the land in question, and then allow the various role players to have their say on the proposal.
12. Call individuals, one from each group, to give their position. The council should listen carefully to each person and then decide what the city should do.
13. After the council votes on whether to sell the land to the developer or not, explain that the cities in our area have probably all faced this issue at one time or another in their development. These are difficult decisions as everyone has a viewpoint that is important and should be considered.

CLOSURE
Ask students what they think their community’s greatest issues are today? Do they think something like this could or has happened to their community? What are the problems concerned with the decision whether it favored one group or the other? Finally, remind students that they are fortunate to live in a democracy where citizens determine issues like this and to be part of a free enterprise economic system. If they lived in a dictatorship, no one would care what position they took nor would they have been allowed to express that position freely.

EXTENSION
1. Students may interview the mayor or a council member within their community to determine what the major issues are in their community. Students might ask about taxes and how they are distributed for services. (What percentage goes to pay for road improvement, etc.?)
2. The teacher may take students to the city center to see the council’s rooms and offices and meet the city staff.
3. Students could select an issue in their community and write a letter to the editor of the newspaper.
4. Students may do a report on why their community grew where it did. They will want to use local libraries for community history. They may also want to understand the factors that caused them to develop into a larger city.

5. Students could do a search for their city’s website on the Internet. What percentages of city taxes are used for services, such as roads, sewage, etc.? 
ROLE-PLAYING CARDS

Role 1:

You are a member of the Chamber of Commerce. The city has prospered with new growth as long as you can remember. New businesses have come into the city for food, recreation, and entertainment. The more people the larger the tax base. All-in-all, you think the growth so far has been good for business and what is good for business is good for the community.

Role 2:

You are a retired person who came to this community because it was quiet and housing was fairly inexpensive. You hate traffic and congestion. You used to know all your neighbors, but now that is impossible. Also, you live on a fixed income, which means that you do not get raises or increases in your retirement funds. Higher taxes would be a problem for you.

Role 3:

You are a member of a middle class family that would like to move to this community, but housing has been hard to find. You have been renting an apartment to get your kids in the schools in this community as they are rated highly by several measures. More homes in the community might help you with your move.

Role 4:

You are the manager of a fast food restaurant. Business has been good, and the competition has not hurt you so far. One the one hand, more homes could mean more business for you. On the other hand, more homes might bring more restaurants in your vicinity. What would all the competition do to your business?

Role 5:

You are an avid birdwatcher. The open land is an ideal place to see a variety of birds. You have seen other wildlife there also. If this land is developed, what will the wildlife do for a home? Your community has run out of open spaces if this land is developed.
Role 6:

You are the mayor of a small town that borders the city. Your community could be annexed by the larger city for more space. Your community is made up mainly of ranchers who need space for cattle and horses to graze. If the land within the city were sold to the developer, would the city forget about annexing your community?

Role 7:

You are a homebuilder. You make your living by sending your crews out to sites to pour concrete, lay bricks, and put the homes under roof. Business has not been very good recently as the community has developed all existing land. You have already had to lay-off some of your employees, as there was not enough work for them to do.

Role 8:

You live in this city but work in the large metropolis about 20 miles away. You drive to work on large freeways every day. You would love to use some public transportation, but so far the community has not been large enough to support such a system. You also know that pollution from commuters like you has made the air very bad on some days.

Role 9:

You own a local hardware store. The decision to allow more growth in your community has caused you to lie awake nights. For one thing, more people would mean more business. However, you have been very lucky so far that only a few big chains of hardware stores, backed by a lot of money, have come to your community. Would new growth bring too much competition for you?

Role 10:

You are a homeowner near the open land that the developer wishes to build upon. You have enjoyed the open land, but you worry that your kids have to travel by bus to school every day. If the developer got the land, would a school come closer to your home so that your kids could walk to their elementary school? Or, would the new traffic from the area cause your roads to be even more dangerous?

Role 11:

You are a member of a family that does not have much extra spending cash each month. Both husband and wife work, but it has been hard to save very much after house payments, clothes, food, etc. are covered. If the land were developed, taxes might go up to pay for the services needed by the new population. What will you do?
LESSON 10

CELEBRATING TEXAS

INTRODUCTION
A tourist is someone who travels to a community but does not plan to stay there on a permanent basis. Over the past several decades, tourism activity in Texas has grown substantially. More people have the necessary leisure time and extra income to allocate to travel and other tourist activities. Tourism has become more important to the economy of Texas and has played a greater role in regional and local economic development programs.

Although reasons vary for making trips, they usually involve people taking vacations, sightseeing, making business trips, visiting relatives or friends, attending a convention, traveling to special events such as concerts or rodeos, etc. Many special events or celebrations in Texas draw hundreds of tourists every year. A variety of cultural groups have settled in different areas around the state and have been a part of our Texas heritage for many years. Texas has many different causes to celebrate – from jazz to bluegrass to Buddy Holly. Communities have capitalized on this rich heritage and have made efforts to draw tourists to their local or regional areas by doing festivals. Tourism plays a major role in our economy. There is a great demand in the state for tourism-related goods and services.

Regional and local economic programs often strive to diversify the economic base. Local governmental officials are usually in favor of increased tourism because such activity brings in more revenue for public use. The local agencies expect increased property and personal tax revenues. The increase in tourism usually also means an increase in jobs for the relatively unskilled workers of the area. Other industries are usually affected as well – like food and beverage, recreational supplies, hotels, etc. Festivals, special events or celebrations, especially those spotlighting a particular heritage, can serve to build local self-esteem by the honoring of the culture and heritage of the groups involved. In many cases, such special events draw tourism to more rural areas and small towns because of the uniqueness of the setting and the characteristics of the place.

Tourism for our state also has a down side. While it promotes economic growth, there are costs to physical and human environments.

Economic Reasoning: This lesson will explore the role of tourism in the state’s economy. Students will examine tourism in Texas as an example of the free enterprise system in action. They will analyze the role of goods and services in the tourist industry as well as look at the impact of various festivals on the Texas economy and their local or regional economy. The role of profit motive in the efforts to build businesses around the tourist industry, and Texas tourism as a national market will be included.

(See economic terms listed in the glossary for more information on the concepts above.)
TEXAS ESSENTIAL KNOWLEDGE AND SKILLS
Analyze the impact of national and international markets and events on the production of goods and services in Texas. (7-13.A)

Analyze the impact of economic phenomena within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas. (7-13.B)

Analyze the impact of significant industries in Texas such as oil and gas, aerospace, and medical technology on local, national, and international markets. (7-13 C)

Locate regions of importance in Texas during the 20th century. (7-9B)

Describe how people from selected racial, ethnic and religious groups attempt to maintain their cultural heritage while adapting to the larger Texas culture. (7-19B)

Explain how the diversity of Texas is reflected in a variety of cultural activities, celebrations and performances. (7-19A)

Organize and interpret information from a variety of social studies sources. (7.21B)

Analyze information through summarization. (7.21C)

Organize and interpret information from a variety of social studies sources. (7.21C)

Create written, oral and visual presentations of social studies information. (7.22D)

ECONOMIC CONCEPTS
Free Enterprise System
Goods
Services
Profit
Entrepreneur
National Markets

HISTORICAL CONCEPTS
Ethnic Groups
Heritage
Festivals
Cultural celebrations

CRITICAL QUESTIONS
1. How important is tourism to the Texas economy?
2. How does planning a festival or celebration exemplify the Free Enterprise System in action?
3. What are the positive and negative impacts of tourism in Texas?
4. What role does the availability of goods and services play with successful tourism?
5. What are the connections between the Texas festivals/celebrations and racial, ethnic, and cultural groups?
6. How do the festivals and celebrations reflect our state’s economic diversity?

LESSON DESCRIPTION
In this lesson, students will research the role of tourism in the Texas economy and examine various festivals and celebrations that play a major role in this important
industry. They will look at profit motive, goods and services, and entrepreneurship as factors in the tourism industry. The important connections with our state’s economic and cultural diversity will be examined, as well as Texas as a national tourism market.

**TIME REQUIRED**
One to two class periods

**MATERIALS**
One copy of the “Celebrating Texas Style” handout (see Attachment 1) is needed for each student. Internet or library access, or other research material will also be needed. Note: the Texas Travel Almanac is an excellent resource and can be obtained for free by calling 1-800-888-8TEX. An organization to contact might be the Texas Festivals and Events Association. See their web site at: http://www.tourtexas.com/@roundtexas.html This site gives a complete calendar of Texas festivals and events.

The following web site has travel market research reports and is sponsored by the Texas Economic Council: http://www.research.travel.state.tx.us

Other basic resources can be used as well. Consider using Texas Highways Magazines and the Texas Almanac. See specifically the “Texas Tourism Facts, 1997” article in the 2000 Texas Almanac p. 124.

**PROCEDURE**

1. Ask students to make a list of all the holidays that their families celebrate, include celebrations or events that they may attend outside their normal family gatherings. Have the class share their lists. Discuss the importance of some of the events, and the possible origin of those events. Students should share why their families celebrate those events, and what they do (activities, customs, etc.) in order to celebrate.

2. Ask students to think about the need to spend money around these celebrations. Do you have to travel, therefore spending funds on gas, food and lodging, when attending these events? Do you buy a ticket to get into certain events during the celebrations? Do you buy anything special to wear at these events, such as t-shirts or costumes? Are there specific businesses involved in these events, i.e. food services, transportation services, entertainment, etc.? How might it impact the state's economy if these events did not take place?

3. If possible, bring in local speakers to discuss the economic impact that certain celebrations have on the local community.

4. Divide the class into groups, or have the students work as individuals. Give each group or individual a particular Texas celebration or festival to research. Some possible examples are: Juneteenth, Cinco de Mayo, West Fest, Oktoberfest, Mardi Gras, Native American Pow Wow. Or have students research to find their own Texas celebration. See Dallas Morning News article, “Culture and Cash,” March 4, 2000. (Note: Teachers should stress economic concepts.)

5. Provide information on specific vocabulary terms stressed for this lesson: free enterprise system, profit motive, goods, services, entrepreneur and national market. Ask students to watch for these terms as they do their research and relate the concept of tourism to each as they complete the graphics in Attachment 1. (See also the glossary at the end of this guide.)
6. Have each group or individual complete the note page during research. With each festival or celebration, students should examine the number of tourists that come from out of state to Texas to attend (if any).
7. Ask each group to research the economic impact of the celebrations using at least one in their local community as an example.
8. Share findings with the class.

**CLOSURE**

Students will have a “Celebrating Texas” event by doing a showcase of various Texas celebrations. Students will create a web page with appropriate information about their festival or celebration or create a Power Point presentation to share with the class. Students should include at least three graphs or charts that will show the economic impact of their celebration on their local community, regional area, and/or the state economy.

**EXTENSION**

1. Create a poster to advertise the celebration including all of the important information.
2. Create a virtual tour of a local festival or celebration for other students to take in order to gather information.
3. Prepare a plan for the City Council, stressing economic development, on building a local festival or tourist event. Stress the economic benefits in the plan.
4. Research the local or regional area and show the economic impact of a tourist event from the past.
5. Have individuals or students create a collage of visuals, words and symbols to represent the information gathered about their ethnic group or celebration.
6. Have each student group publish a newspaper with different sections including: history, important figures, economic factors, interesting facts, etc.
CELEBRATING -- TEXAS STYLE

Directions: Use the following organizer in order to keep track of your notes on your assigned Texas celebration. In order to meet all of the requirements of the project, you must have each box filled in completely.

<table>
<thead>
<tr>
<th>Name of the celebration:</th>
<th>Group celebrating: (race/ethnicity/religion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locations in Texas of the celebration: (list all known places the celebration occurs).</td>
<td>History behind the celebration:</td>
</tr>
<tr>
<td>Description of the celebration: (what happens, who participates, music, dancing, food).</td>
<td>Interesting facts:</td>
</tr>
<tr>
<td>CELEBRATING -- TEXAS STYLE</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Types of services provided for the people attending:</td>
<td>Types of goods that can be purchased or used during the celebration:</td>
</tr>
<tr>
<td>Summary of the economic impact on the local community.</td>
<td>Summary of the economic impact on the state of Texas:</td>
</tr>
</tbody>
</table>
GLOSSARY OF ECONOMICS TERMS FROM THE TEXAS ESSENTIAL KNOWLEDGE AND SKILLS

Boom-and-Bust Cycle
Immediately following World War I the economy slowed as demand for goods decreased. In the 1920s increased demand prompted a "boom," a period of rapid growth, in the economy. People left depressed farming areas and moved to jobs in the lumber or oil industries, or to cities to work in factories on production lines. Better transportation increased demand for meat in northern areas so the ranching and the meat-packing industry prospered. Transportation changes increased the demand for oil and petroleum products. With increased income more Texans looked for goods to buy and for new forms of entertainment. Movies, jazz, and automobiles all provided distractions. The boom continued until the Great Depression of the 1930s. The crisis or "bust" in the economy affected small farmers fighting against droughts, pests or others factors which caused crops to fail. Even farmers who increased production suffered because the prices for their goods decreased. At the same time, prices for machinery, taxes, and land increased. Those seeking relief in the cities in the 1930s did not find it. Factories were not hiring, unemployment increased and the depression or "bust" deepened. World War II reinvigorated the economy and produced the next "boom" cycle.

(Economics Course)
Determinates of Supply and Demand
Non-price determinates of demand are those things which are not related to the price of a good or service but which alter our ability or willingness to purchase the item. These defy the law of demand and cause the demand curve to shift, thus changing the equilibrium price. Change in our income either increases or decreases our ability and willingness to purchase. If our income increases we tend to purchase more products and we tend to purchase more expensive products. The price of related goods affects our demand. If the price of steak increases, we may instead purchase chicken, or if the price of hot dog buns decreases, we tend to buy hot dogs to go with them! Our tastes and preferences determine our demand. We may buy name brands instead of the cheaper generic brands. The number of buyers in the market affects demand when we buy fad items. Our expectations of price increases or decreases will also alter demand. Non-price determinates of supply are those things which are not related to price but do alter supply. They cause the supply curve to shift and thus change the equilibrium price. When the costs of inputs increase, a business can not produce the same number of items at the same price. When the number of suppliers increase, more items will be produced. Years ago there were only a few computer manufacturers and now there are many in the market. Taxes and subsidies also alter the costs of production and therefore the number of items produced.

Free Enterprise System
A free enterprise system is a system in which individuals depend on supply and demand and the profit margin to determine the answers to the four basic economic questions of "what to produce," "how to produce," "how many to produce," and "for whom to produce." Profit is measured in dollars. The quest for improvement financially and materially motivates producers and consumers in the free enterprise system. Government regulation is kept to a minimum. Competition between companies makes it
more difficult to answer the questions of what and how much to produce and for whom, but it also makes it harder for one company to monopolize the market.

**New Deal (1933 – 1941)**
The New Deal was President Franklin D. Roosevelt's plan to end the Great Depression. Bills passed during the first 100 days of his presidency in 1933 stressed "the three R's" of relief, recovery, and reform. Relief programs for the needy included work programs like the Civilian Conservation Corp (CCC) and the Civil Works Administration (CWA). Recovery programs included the Home Owners Loan Corporation (HOLC) and the Agricultural Adjustment Administration (AAA) which monitored crop acreage and livestock numbers to set quotas and maintain prices. The National Recovery Administration (NRA) worked with business to manage prices and wages. Reform efforts included the Federal Deposit Insurance Corporation (FDIC) which guaranteed individual deposits and the Securities and Exchange Commission (SEC) which required investment firms to provide accurate information on their finances. Relief, recovery, and reform efforts continued throughout the 1930s. One of several important bills in 1935, the Social Security Act, levied a tax on employers to provide compensation and protection for Americans unable to work. Employees and employers shared contributions to the fund which would provide monthly payments to workers following their retirement. Funds to pay for New Deal programs enacted after 1935 were raised by increasing income taxes on corporations and the rich, and increasing estate and gift taxes.

**1929**
The Great Depression began in 1929. President Herbert Hoover's efforts to slow the speculation in paper profits through the Federal Reserve Board had little effect. In October, U.S. and foreign investors began selling shares at a panic pace. The stock market fluctuated considerably during the Fall of 1929. Erratic sales on "Black Thursday," October 24, caused investors concern and on October 29, "Black Tuesday," 16,410,030 shares were sold on the stock exchange. By late 1929, investors lost $40 billion in paper values, an amount greater than total U.S. expenditures for World War I. The collapse of the stock market preceded a world-wide economic depression. All industrialized nations suffered. By the end of 1930, more than 4 million workers were jobless in the United States and by 1932, 12 million were unemployed.

**Opportunity Costs and Scarcity**
When an economist considers the cost of an item, he or she considers more than the price tag. Economists also consider the opportunity cost or the cost of the next best alternative use of money, time, or resources when one choice is made over another. For instance, a student with $25 to spend can choose between several options, a CD, a new shirt, movie tickets, or restringing a tennis racket. The student decides that restringing the racket is the most important need at the moment. The opportunity cost includes the items and activities the student gave up when he or she did not buy tickets to the movies, a favorite CD, or new clothes. Economists also consider the relationship of the scarcity of a good or service to its cost. In economics, scarcity is the condition of not being able to have all of the goods and services one wants. Resources do not exist in sufficient quantities to satisfy all desires to use them. Scarce items may have a higher value and the value may fluctuate depending on availability. People recognize scarce items carry a higher opportunity cost; they give up more alternatives to purchase shrimp off-season than they would during the shrimping season.
Profit
Profit is the degree to which persons or organizations are better off financially at the end of a time period than they were at the beginning. The increase in material well-being is termed profit. Profit is a motivational force in capitalism and in free enterprise.

Profit Motive
Profit motive is the force which motivates people and organizations to improve their material well-being. The profit motive is a characteristic of the free-enterprise system and capitalism and is the main reason people start businesses. To a business, profit means the difference between revenues and costs. The free-enterprise system uses supply, demand, and the profit motive to determine the answers to the four basic economic questions: "what to produce," "how to produce," "how many to produce," and "for whom to produce."

Spindletop
Pattillo Higgins, the "prophet of Spindletop," formed partnerships with other men who believed that there was oil in the Gulf Coast region. In 1892, Higgins, George Carroll, and George Washington O'Brien formed the Gladys City Oil, Gas and Manufacturing Company but after several unsuccessful wells, enthusiasm lulled. Anthony Francis Lucas eventually discovered oil on land adjacent to Spindletop on January 10, 1901, but the land Higgins owned on the crest of Spindletop proved even more productive. The major strike changed the Texas economy and made petroleum refining the leading Texas industry. Texas crude production reached its peak of 1.365 billion barrels per year in 1972. Oil and gas production accounted for 28 percent of the state revenue in 1981 but the energy crisis of the 1980s curtailed revenue. Production revenue for the state dropped to 12 percent at the end of 1988. Between 1928 and 1988, Texas led the nation in oil production. Alaska surpassed it in production in 1988, though oil remains important in the Texas economy.

Supply and Demand
Supply is the amount of goods available and demand is the desire to own something and the ability to pay for it. The time of year affects the supply and the demand of some goods. Watermelons ripen in the summer at the same time people crave them. Other fruits and vegetables including oranges, apples, and lettuce were available only during certain seasons before refrigeration and improved transportation extended their life after picking. The two forces of supply and demand combine in the laws of supply and demand which state that: more will be bought at lower prices and less at higher prices and more will be offered for sale at high prices than at lower prices. This works only if the market is free from price regulations imposed by government.

Supply, Demand and Price
Supply is the amount of goods available. Demand is the desire to own something and the ability to pay for it. The time of year affects the supply and the demand of some goods. For instance, watermelons ripen in the summer at the same time people crave them. The two forces of supply and demand combine in the laws of supply and demand: more will be bought at lower prices and less at higher prices and more will be offered for sale at high prices than at lower prices. The laws are presented visually in supply and demand graphs. A supply curve illustrates the relationship of supply and price based on the way a business distributes goods. When the price of a good is low, supply is limited; as prices increase, the supply increases. A demand curve illustrates the relationship of demand and price. As price decreases, demand increases. A demand schedule shows
the quantity demanded at a range of market prices at a given time. The relationship of supply and demand is presented in a supply-and-demand graph depicting equilibrium or market-clearing price. This is the price at which the supply curve and the demand curve will intersect. This is the price at which all that is supplied will be bought and all that is demanded will be offered. The law of supply and demand applies only in a market free from price regulations imposed by government.

**Urbanization**
Urbanization is the process of city growth and development. Due to urbanization, the percentage of people living or working in urban places increases compared to the percentage living in rural places.

**(U.S. History Course)**
**Great Depression**
In the United States, a period of severe economic hardship called the Great Depression began in 1929 and continued until World War II. The Stock Market Crash of October 1929 contributed to the start of the depression but many other factors affected economics in the 1930s. Wealth was not distributed equally among the population. Too many people had too little money and they could not keep enough money in circulation to keep the economy running. High tariffs limited foreign trade and investment and prevented European countries from repaying the debts they owed the United States following World War I. Banks were not secure and the money in them was not insured if banks failed. Americans bought too much on credit and the demand could not keep up with the supply of goods in an era of overproduction. The depression extended beyond the boundaries of the United States, affecting European countries and others which relied on trade with the United States.