

Economy of the Southwest

Steven and Natalia are working with their classmates to understand the economy in the Southwest.

"Ms. Johnson," Steven asks, "what do you mean by economy?"

"Well, the economy is how people make money. Our region uses its natural resources to make products and provide services," she explains. "Now, I have a question for the class. How do Oklahoma, Texas, New Mexico and Arizona use their natural resources to keep their economies running?"

Students form small groups. Natalia joins Steven as they work to answer Ms. Johnson's question.

Mining and Oil Drilling

Mining and oil drilling are very important. They help the economies of the four states in the Southwest Region. Texas and Oklahoma produce much of the nation's oil. The Southwest is also rich in minerals such as coal, copper and silver. Mining and oil companies provide jobs for workers throughout this region. They also sell their products to other companies throughout the nation and the world.

Agriculture

Much of the land in the Southwest is too dry to grow crops. There are some areas that receive enough water through rainfall. Still others use irrigation ditches and canals to bring water in from other places to grow crops. The Southwest grows cotton, lettuce, melons, grapefruit, onions, nuts, hay and more. These crops are shipped across the nation and the world. This brings millions of dollars into the Southwest's economy. Ranchers here also raise dairy and beef cattle, pigs, sheep and chickens. If you eat

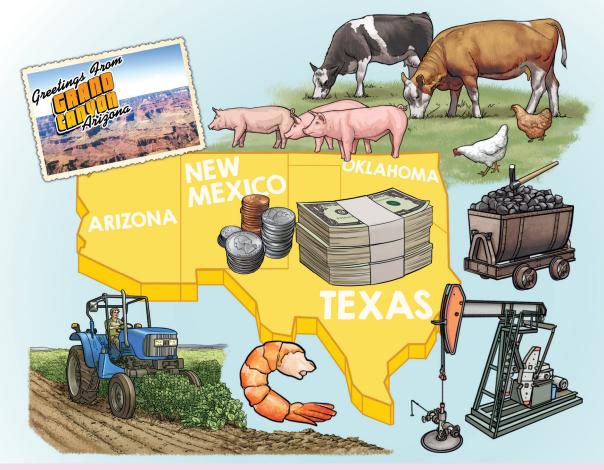
brown shrimp, chances are they were caught along the Texas coast!

Tourism

Tourism brings millions of dollars into the economy of the Southwest as well. Tourists from colder climates enjoy visiting these states during the winter months. When it is cold and snowy back home, it is often warm and pleasant in the Southwest. Visitors come to the Southwest to

see the Grand Canyon National Park in Arizona and Carlsbad Caverns National Park in New Mexico. These locations and many others bring money into the economy and provide jobs for people in the area.

After they share their findings with Ms. Johnson, she smiles. "Class, now I hope it's easier to see that these regions depend on their natural resources to support their local economies."



Connections



Abundant Resources

The Southwest has most of the nation's oil and gas. These are important resources for the nation. Companies drill for these fossil fuels and then sell them. This brings money into the Southwest. Texas leads all states in the amount of exports, or goods, traded to other countries. The Lone Star State exports more than \$300 billion worth of goods each year. Right now, products from our region are traveling all over the world! States,

companies and people are able to purchase products from other countries with the money from selling these goods.

Oklahoma does grow important crops, and they help the region make money. Wheat is the biggest crop. It is closely followed by hay. Peanuts, soybeans, cotton and corn are other important crops for the Southwest. Companies use the natural resources found in each region to bring money and jobs into that area.

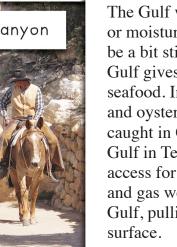
Shiprock

Moles at the oralla carry off



Rafting on the Colorado River

Mules at the Grand Canyon



Natural Wonders

One of the Southwest's most popular attrOne of the Southwest's most popular attractions is the Grand Canyon in Arizona. This colorful canyon runs nearly 300 miles and is almost 20 miles across at its widest point. Its average depth is almost 6,000 feet! People even ride down steep trails on mules. Float trips can be taken on the Colorado River.

Natural Wonders

You know some great things about living in the Southwest. There are wide-open spaces where you can see for miles and everything from flat prairies to soaring mountains.

The Gulf of Mexico

Much of our weather in the region is influenced by the Gulf of Mexico. The warm Gulf water keeps the snow away from the southern parts of the region. The Gulf water also adds humidity, or moisture, to the air. Summer can be a bit sticky. Being located near the Gulf gives our region easy access to seafood. In addition to shrimp, crabs, and oysters, many types of fish are caught in Gulf waters. Ports along the Gulf in Texas provide easy shipping access for resources and products. Oil and gas wells dot the countryside and Gulf, pulling up oil from miles below the surface.

Climate Change

The Southwest is already a dry region. Climate change is what people are calling the changes in weather patterns that are happening all over the world. With the temperature increase on Earth, what could happen to our region? Some scientists believe it could get hotter and drier. That's bad news for our agriculture industry. Farmers will have to think about what is grown and where it is grown. People will also have to think about new sources of water for everyday things.

The natural wonders continue in New

gives visitors a look at a cave system

that stretches for miles. The caves are

the spring and summer. New Mexico

rock formation located on the Navajo

Reservation. It helped guide settlers as

they moved west. Shiprock soars more

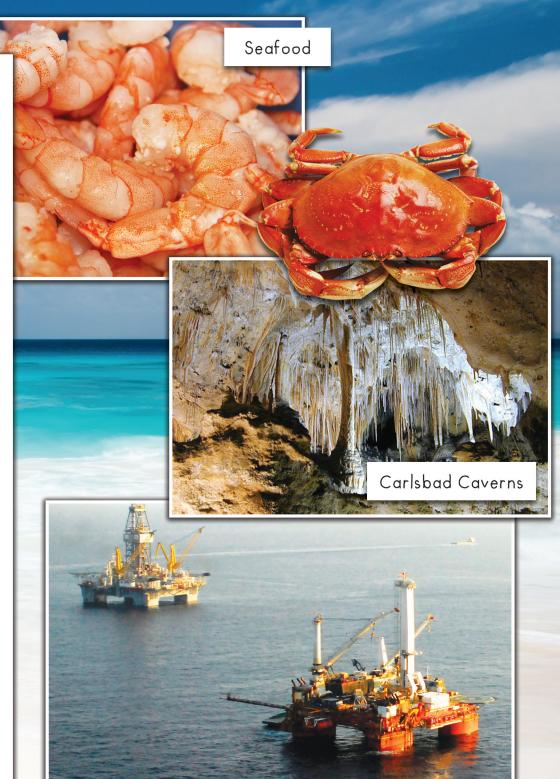
than 1,600 feet above the ground. It is

considered a sacred site for the Navajo.

is also home to Shiprock, a natural

home to more than 300,000 bats during

Mexico. Carlsbad Caverns National Park



Austin, Texas

Facts about Austin

Austin is one of the country's fastest-growing cities. It currently has just under one million people. Why Austin? It has 300 sunny days, lots of things to do and a strong economy. This means a lot of businesses are here, and they have a lot of employees. Many of those businesses have come from other states. Compared to other areas, Austin is an affordable place to live. That means things like housing, food and insurance don't cost too much. It also means that people earn a good salary in their jobs.

Being the capital, the government is a big business. Between the city, state and federal government, nearly 90,000 people are employed in this industry. Education is big business here. More than 45,000 jobs are linked to education. The two biggest educators are universities/colleges and the city's school districts. Technology jobs require a lot of education and pay well. Austin has seen big growth in these jobs. More than 100,000 people work in the technology industry.

History of Austin

The city was named after Stephen F. Austin. In 1822, he settled a small group of people in what was then Mexico. Austin quickly became the leader of the community and the person to speak with the Mexican government. Austin worked with the Mexican leaders but then joined the push for independence from Mexico. In 1839, Austin was established as the capital of Texas.

Austin Today

Austin is known for its music. It bills itself as the Live Music Capital of the World. Live musicians even play at the airport to welcome visitors. Music festivals are very popular and happen all the time. They feature country, blues, rock, Latino and nearly every other type of music.



Southwest Cities: Route 66

Route 66 was a highway that ran 2,000 miles from Chicago to Los Angeles. It entered the Southwest right here in Oklahoma. Oklahoma City is the first Southwest city mentioned in the song.

Oklahoma City

The capital of the Sooner State has more than a million people living in and around it. The capitol building is the only one in the nation with a working oil well on the grounds.

Amarillo, Texas

Head west and the next city in the song is Amarillo, whose name means yellow in Spanish. It is home to the American Quarter Horse Association and the unique Cadillac Ranch.

Gallup, New Mexico

Continue west along what used to be Route 66 and you'll reach the next city in the

song, Gallup. You can learn about Anasazi culture at the Red Rock Museum.

Flagstaff, Arizona

This high country mountain city is the gateway to the South Rim of the Grand Canyon.

Kingman, Arizona

The final Southwestern city in the song is Kingman. This small city of 30,000 people celebrates the famous song with the Arizona Route 66 Museum.



Southwest Goods

Mining provides minerals for our region and the rest of the nation. Copper is plentiful and is sent nationwide to be made into wiring and pipe. Silver and gold are mined for many purposes.

Oil and natural gas are also exported around the nation. The Permian Basin in Texas is where most of the state's oil rigs are located. It's also where half of all oil rigs in the U.S. are found.

Cattle ranching in the Southwest provides beef for the whole country. Texas has about 12 million cattle. Oklahoma isn't far behind, with six million cattle.

While we do have some great resources here, we don't have everything. One of our biggest needs is water. More than 40 million people live in the four states of the Southwest. We need water to drink, cook and clean. It's also vital for farmers and cattle ranchers. The Colorado River, which flows in through the Grand Canyon, supplies water for many states. Other important rivers are the Rio Grande and the Red River. Dry summers caused by climate change make it very important to use water carefully.



Rivers and Lakes

Oil Rigs in the Gulf of Mexico

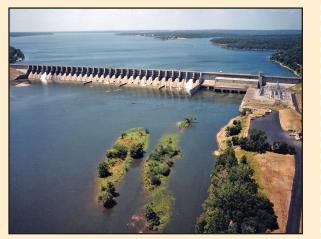
As you know, water is very important to the Southwest. Oklahoma has many water sources.

Forming much of the southern border between Oklahoma and Texas, the Red River was first used by American Indians to grow crops. It also provided food through fishing. Today, it is still used for hunting, fishing and recreation.

More than 200 lakes have been built in Oklahoma. Known as reservoirs, these lakes form behind dams that are used to control flooding and provide drinking water, recreation and generate power. Our state has more lakes made by dams than any other state.

People and animals need access to water. When a dam is built, it isn't kind to the plants and animals that once lived there. Land animals are forced to move. Plants, including

grass, shrubs and trees, don't have a choice. They end up underwater. You would think the fish would be happy, but some fish do better in moving water. Dams have both positive and negative consequences.



Earthquakes

Have you felt the ground shake? In the past decade, more than 2,000 earthquakes have been felt in the Sooner State. We're averaging two a day that are powerful enough to feel. That's more than earthquake-prone California. Why?

Some people were quick to blame the oil drilling process known as fracking. This process injects liquid deep below Earth's surface to release oil and gas. The Southwest relies on oil and gas to help the economy. If they are to blame, it would be bad news for the industry.

The U.S. Geological Society says fracking isn't to blame. It probably caused only a few of those. In that case, what caused the rest? It wasn't natural. Humans are to blame. The USGS has traced the majority of earthquakes to a process known as wastewater disposal. Fluid waste from oil and gas drilling is injected deep in the ground. This type of disposal is nearly 90 years old. But it's happening more often because oil drilling has increased. All that wastewater used in the process is being pumped into the ground.

Climate change is being blamed on people. Now we're causing earthquakes. People really do have a big impact on our planet.

Crude Oil

Just as blood is vital to the human body, petroleum is vital to the United States. Also called crude oil, it is found underground. Lots of it is sitting beneath the Southwestern states.

How did it get there? Millions of years ago, tiny plants and animals lived and died in Earth's oceans. Over time they were covered in soil and put under lots of pressure. This process gave us crude oil. Crude oil is used in making gasoline. Some 250 million cars use nearly 400 million gallons of gasoline each day! But where does the crude oil come from?

First, an oil well needs to be drilled. Oklahoma and Texas have a lot, so it makes sense to continue to drill there. Test wells tell scientists whether there's oil.

Both land and water drilling rigs drill thousands of feet beneath the Earth's surface to pull out the oil. Technology has made it easier to pull oil from beneath lakes and other areas without harm. Once the oil is extracted, refineries take crude oil and turn it into usable fuels. Jet fuel and kerosene are made from crude oil. Gasoline, diesel and heating oil are also fuels that refineries make. Did you know all the plastic we have in our schools and homes are made from crude oil?

> The American Petroleum Institute believes we

> > have about 60 to 90

years of this

nonrenewable resource remaining. Advancements in technology make it easier to get oil from new sources. When it's gone, it's gone. That's why it's never too early to start figuring out what the future would look like without crude oil. Not only will we need to develop new fuels, but we will also need to find substitutes for all that plastic we use.



State Research

We know Oklahoma is a great place to live. We have a lot of natural resources, which give us lots of things to see and do. We know about important industries like oil and cattle. What about the other states in the Southwest? What can they offer their residents and visitors?

A sunny, dry climate attracts people and jobs to the Southwest. Each state has resources that help the economy. Each state has industries that provide jobs for its people.

Choose New Mexico, Arizona or Texas. Then do some research. Find out what natural resources your chosen state has. What is there for tourists to see and do? You will make a poster telling your classmates all about your state. Make it colorful and neat. Use the space below to plan a rough draft of your poster. Use the questions below to help guide your research. Make sure the answers are written somewhere on your poster.

Questions:

to the Southwest.

- 1. What are some of the renewable resources in your state?
- 2. What are some nonrenewable resources in your state?
- 3. How have human activities harmed the environment?
- 4. What are some major industries in your state?
- 5. List at least three things to see or do in your state.

Let's Write

Activity

1. How does the city of Austin impact the

economy of the Southwest?

2. Oil is a nonrenewable resource and Americans use almost 400 million gallons of gas each day. What can people do to use less gas on a daily

3. What do companies use to bring money and jobs into the Southwest?

Think & Review

4. What is the U.S. Geological Society blaming increased earthquakes on? Explain why you agree or disagree with them.

Shiprock courtesy of Bowie Snodgrass. Carlsbad Caverns Court

If you'd like to make any editorial comments about our paper, please write to us at support@studiesweekly.com.

Explain why tourism is beneficial

esy of Eric Guinther