

Section

4

The Great Plains

Main Ideas

1. The Great Plains region is divided into the High Plains and the Edwards Plateau subregions.
2. Texans have modified the region's environment to build and support its ranching and oil industries.

Key Terms and Places

- Caprock
- escarpments
- fault

Why It Matters Today

Erosion has affected the landscape of the Great Plains. Use current events sources to find information about erosion or other problems that farmers in Texas face today.



TEKS: 8A, 9A, 9B,
10A, 10B, 13C, 21B,
21C, 22A, 22D

myNotebook

Use the annotation tools in your eBook to take notes on the subregions of the Great Plains.

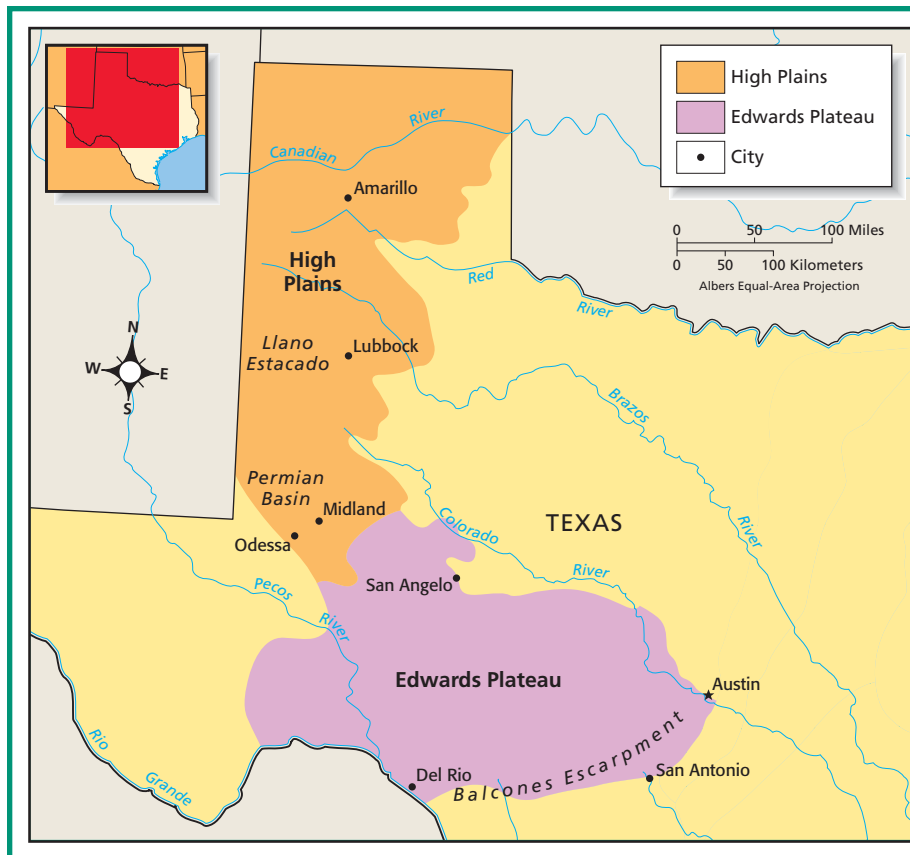
The Geographer's World

Gilbert Jordan grew up in a ranching community in the Hill Country. Ranch life was full of challenges. Weeds called cockleburs grew in nearby pastures and were a particular burden to ranchers. These burs get caught in the wool of the sheep and irritate cattle and horses. Ranchers had to pull cockleburs out of the pastures by hand. As Jordan remembers, “Pulling up cockleburs was a hot, mean job”—and every year the cockleburs would reappear in the pastures.



The High Plains

The Texas Great Plains includes two subregions: the High Plains and the Edwards Plateau. The High Plains subregion covers most of the Texas Panhandle. The land of the High Plains is higher than the Central Plains region. A hard bed of rock below the soil known as the **Caprock** is another noticeable physical feature in the area. Erosion of the rock has created cliffs—called **escarpments**—along its eastern and western sides. Over millions of years the Red River has cut a deep canyon into the Caprock. Palo Duro Canyon is at least 800 feet deep and more than 60 miles long. However, the High Plains subregion is mostly flat open prairie. When Spanish explorers first saw the High Plains they named it Llano Estacado.



Subregions of the Great Plains

Interpreting Maps The Edwards Plateau has a more rugged landscape than the High Plains.

- 1. Locate** What major landforms make up the Great Plains region?
- 2. Contrasting** How do you think the landscape has affected the growth of cities in the Edwards Plateau subregion?

The High Plains receives little regular rainfall. Early settlers were certain that the land could not be farmed. However, the rich grassland did attract cattle ranchers. Today, feedlots—where cattle are raised on feed rather than grass—are scattered throughout the High Plains. In recent decades much of the grassland has been turned into farmland. Farmers pump water out of the Ogallala Aquifer to irrigate their fields of wheat and cotton.

Texans have discovered large deposits of oil and natural gas in the High Plains area. Oil wells dot the subregion. The few cities in the subregion provide services for the ranching, farming, and oil industries. For example, Lubbock and Amarillo serve as meat processing and distribution centers, while Midland and Odessa have several oil companies.

Reading Check Finding the Main Idea How have Texans adapted to and modified the environment of the High Plains?

The Edwards Plateau

The Edwards Plateau subregion lies just south of the High Plains. The Edwards Plateau is separated from the Gulf Coastal Plain by the Balcones Escarpment. This limestone ridge lies on a **fault**, or break in Earth's crust. This fault extends up from the southwestern part of Texas through San Antonio and Austin.

That's Interesting!

Llano Estacado

Some historians once thought that *Llano Estacado* meant "Staked Plain." They believed that Spaniards used stakes to mark their path across the flat, treeless grassland. Other historians disagree. They doubt the Spanish could have found stakes on the treeless plains. Instead, they believe that *Llano Estacado* means "Stockaded Plain" and refers to the Caprock Escarpment, which looks like the wall of a fortress rising from the ground.

CONNECTING TO Literature

The Wind

Dorothy Scarborough

Folklorist and novelist Dorothy Scarborough wrote The Wind in 1927. This excerpt describes the struggle of a pioneer woman in the Great Plains town of Sweetwater, where Scarborough grew up.

For endless miles there seemed nothing but wind and sand and empty, far off sky. . . . But perhaps you do not understand the winds of West Texas. . . . Civilization has changed them. . . . Man, by building houses here and there upon the plains, by stretching fences, by planting trees, has broken the sweep of the wind. **What do you think life was like for Scarborough in Texas?**

The Edwards Plateau is a high hilly area. A deep hard layer of limestone lies just below the plateau's soil. Streams have cut deep canyons and valleys into the limestone plateau. Rainfall and wind have also swept away soil in parts of the plateau. This erosion has contributed to the rocky landscape.

In most areas, soil erosion has left only a thin layer of soil above the limestone. Only small clumps of grass, shrubs, and cedar trees grow in this soil. Where the soil is deeper, short prairie grasses and mesquite trees grow. Ranchers raise cattle in many of the areas where these short grasses grow. Ranchers have adapted to the environment in rockier areas by raising sheep and goats. Mohair from goats and wool from sheep are sold to make clothes and other products. Ranchers also lease their land for recreation and hunting.

Although the landscape of the Edwards Plateau is often rugged, Texans have settled and prospered in the region. The largest city, Austin, lies at the eastern edge of the plateau. Austin is the state capital and home to many high-tech industries and the University of Texas. The city of San Angelo serves as a distribution and manufacturing center. Del Rio has prospered with the growth of tourism and trade with Mexico.

The Llano Basin is in the northeastern area of the Edwards Plateau. The basin was formed by erosion from the Colorado River and its tributaries. Because of this erosion, the Llano Basin lies some 1,000 feet lower than the Edwards Plateau. There are few towns in the basin. Most residents are farmers or ranchers. Hunting and tourism also contribute to the basin's economy.

Reading Check Analyzing Information How has erosion affected the landscape of the subregion?



Section 4 Review



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ONLINE QUIZ

1. Define and explain:

- Caprock
- escarpments
- fault

2. Locate on a map:

- High Plains
- Edwards Plateau

3. Categorizing

Copy the graphic organizer below. Use it to identify, categorize, and compare the physical and human characteristics of the subregions of the Great Plains.

Subregion	Physical Characteristics	Human Characteristics

4. Finding the Main Idea

- What are some common physical characteristics of the High Plains?
- How does the physical geography of the High Plains affect the region's economy?

5. Writing and Critical Thinking

myWriteSmart

Making Generalizations and Predictions

Write a short editorial about the Great Plains, focusing on changes to the environment and potential consequences. Consider the following:

- how Texans modify the environment
- how erosion has affected the landscape of the Great Plains