

## REGIONS OF TEXAS

### Purpose

- To explain the concept of a geographic region
- To locate physical regions of Texas on a map
- To identify characteristics that distinguish Texas regions using landforms, rivers, climate, and/or vegetation data

### TEKS Standards

#### *Grade 4 Social Studies*

(7) Geography. The student understands the concept of regions. The student is expected to (A) describe a variety of regions in Texas and the United States such as political, population, and economic regions that result from patterns of human activity;

(B) identify, locate, and compare the geographic regions of Texas (Mountains and Basins, Great Plains, North Central Plains, Coastal Plains), including their landforms, climate, and vegetation.

**Grade Levels:** 3<sup>rd</sup> -7<sup>th</sup>

**Class Time:** 1-2 class periods

**Materials:** plastic chains with Giant Traveling Map of Texas resources, descriptive information on regions; notebook paper or white boards for each group, and resource maps of vegetation, rainfall, rivers.

*Note: If students created their own “torn maps” of Texas in a preceding lesson, they may identify regions by lightly shading them. On the back, add a legend to show the name of the region each color represents.*

### Background Information

Texas is the second largest of the 50 states in the United States. Studying the whole state can be confusing with all the different landscapes and climate, plants and animals, and population and culture.

One good way to learn about the state is to divide Texas geographically into areas, or *regions*, and pay attention to one area at a time. In this lesson, we will identify areas with similar *physical landscapes* and outline these regions with the chains. A *region* is an area where nearby places are similar in some way. There are many types of regions. You may outline a region of Texas where buffalo herds roamed or people speak Spanish or even the area of Dallas Cowboy fans.

The more you know about a region, the more ways you can divide it into smaller regions. For example, *the Plains* could be divided into the *rolling plains*, *the high plains*, *the southern plains*. The information here and the additional maps included in the resource material will help you define regions.

### Instruction Information

The lesson identifies seven geographic *regions* that geographers use to study different parts of Texas: 1) Gulf Coastal Lowlands, 2) Piney Woods Coastal Interior 3) Prairies, Lakes, & Timbers, 4) North Central Plains, 5) Central Texas Hill Country 6) High Plains, and 7) Big Bend Mountains & Basins.

### *Gulf Coastal Lowlands*

The Coastal Lowlands are along the Gulf Coast and border the Gulf of Mexico and extend inland. The land usually has low elevation, less than 300 feet above sea level. It is mostly level land that makes it easy to travel from place to place. People use boats on the water, cars and trucks on highways, trains on tracks, and planes at the airports to move people and goods in and out of Texas. The coastal plains region has beaches and many sites to see. It has lots of jobs. . . and lots of people! It also has plenty of rain (with 40 – 50 inches of rain per year), mostly warm temperatures, and is a place where many tropical and semi-tropical plants grow well. Seldom does the temperature dip below freezing. It is home to many birds that depend on water for their source of food.

### *Piney Woods (coastal interior)*

Further inland, the land has some rolling hills and valleys and is slightly higher in elevation (300-500 feet above sea level). The northeastern part has rich farmland and pine forests. It receives plenty of rainfall with more than 40 inches per year. Some people call that the Piney Woods region. It is not as close to the sea, not as warm year round, and has deeper soil where pine trees grow well. It shares a border with Louisiana and used to be a major cotton growing area. The Sabine River and its tributaries mark the eastern boundary of the state.

### *Prairies, Lakes, and Timbers*

The region of *Blackland Prairie* has fertile, black soil where tall grasses grew and once brought people to the area for farming, trading, and establishing homes. The region has many lakes, although some are man-made. Many areas have trees, prairies, or grassland. Today, the farmland is converted into a more built environment, with buildings, homes, and an extensive transportation network. This built environment serves the population of the Dallas- Fort Worth Metroplex. Even the cultivated land shows the influence of people. Many man-made lakes supply water and recreation. West of IH-35, fertile black soil of the region spans from the Red River to the Rio Grande in a narrow band shape. The prairie land stops as it meets the higher land to the west. The northern boundary of Texas, the Red River, is in this region. It often receives about 40 inches and generally is 1000 feet in elevation with rolling terrain that may be only 500 feet above sea level in some places.

### *North Central Plains (Cross timbers)*

The *northern plains region* west of Dallas and Fort Worth becomes much drier with less vegetation. The region extends from the northern boundaries to the central part of the state. It begins just west of Fort Worth. Between scattered areas of grassland, trees and brush are tangled together so tightly that it was difficult for explorers and traders to go through the region. The cross timbers create a boundary between east and west Texas. Today, IH-35 marks the eastern edge of the cross timbers, just like early trade routes and cattle trails. The elevation in the north central plains gets higher the further west it goes. It ranges from about 1500 feet to 3000 feet in elevation. It also gets drier further west with 20-25 inches of rainfall a year.

### *Central Texas Hill Country (Edwards Plateau)*

South of the north central plains is higher land called the Hill Country because of its hills, rivers, and plateaus. It extends west from the state capital and includes lakes, small ranches, state parks, and a rich cultural history in its small towns. Early explorers established trade routes along the rivers of the regions. Later, cities of Austin and San Antonio formed in the region between the lowlands and the high plains. Its warm climate, adequate rainfall, natural vegetation, and somewhat protected sites encouraged people to rest in the area as they journeyed across the southwest. The region has an annual

rainfall amount of 30 plus inches and elevation varies between about 1500-2000 feet (Dome of Enchanted Rock = 1,825 ft).

### *High Plains*

The *high plains* is a dry region that includes the Panhandle that receives less than 20 inches of rainfall annually. It is a mixture of high, flat land with mesas, ridges, and steep walled canyons. Buffalo grass grows in clumps in the driest western parts. Hot and strong winds from the west dry out the soil and give rise to dust storms. For many years, the buffalo herds roamed this land. They lived on the rough grass and occasional water sources. In recent years, oil production and wind energy farms add to cotton growing and cattle ranching as resources of the land. The distances between towns is great and the population is low. It extends all the way to the dry, mountainous region of the southwest. It is also much higher in elevation than land to the east, 3,000-5,000 feet above sea level. It has less than 20 inches of rainfall a year and less than 10 inches in some places. A higher, flat area of west Texas is the Llano Estacado (3,200 feet). It is defined by its elevation. It is also called the Caprock. The caliche in the soil makes a hard layer that is not easily eroded by water and strong winds.

### *Big Bend (Trans-Pecos, Basin & Range)*

Another dry region is found in far southwestern part of Texas is bounded on the south by a large bend in the Rio Grande River. The Big Bend region is named after the bend in the Rio Grande River and also includes the area to the west of the Pecos River, a desert region with rugged mountains and valleys. It is a long distance from other cities in Texas and its history and culture is mixed with Hispanic culture of the area. The region extends westward and includes the several mountainous areas such as the Guadalupe Mountains, the Davis Mountains, and the Chisos Mountains. The Rio Grande River Valley cuts through the rugged, dry mountains. The highest elevation in this region is Guadalupe Peak 8,749 feet but along the Rio Grande River, the land is 2,500 feet or less. Because of the mountains and valleys, some geographers call this a basin and range region. Rainfall in the western parts of the region is 10 inches per year, or less.

## **Student Activities/Assessment**

### *Whole Class Activity*

1. To begin, the instructor displays a list of the names of the physical regions of Texas and shows the locations on a map of Texas. An interactive display, i.e. smart board, will make it easy to sort the regions according to different traits such as elevation or rainfall. Colors on the Giant Map of Texas provide that information. Written descriptions in this lesson for the instructor may be useful for some groups.
2. First, students will sort the list of regions according to elevation. The region with the highest elevation is the top of the list while the region with the lowest elevation is at the bottom. What are some general conclusions we can make about the pattern of elevation across the state?
3. Next, students will identify the average amount of rainfall across each region. Make another list of the regions and sort it according to rainfall. The region with the highest amount of annual rainfall is at the top, and the region with the lowest amount is at the bottom. How does this order compare with the elevation list?
4. Third, use the vegetation map to identify the typical vegetation of each region: desert, savannah, prairies, forests, and grasslands.

### *Small Group Activity*

1. Divide the class into seven small groups. Give each group a chain and the name of a region. They will use the chain to outline the region. Each group must pay particular attention to the boundaries with other regions/groups to determine where the landforms, climate, and vegetation are more like the rest of the region.
2. While sitting inside the region on the Giant Map, group members will locate rivers, tributaries, mountains, canyons, and other identifiable features.
3. Each small group will describe the region for rest of class. After each group's description, other groups will record on their whiteboard how that region is distinct from their own region.
4. On the giant map, students will lie/sit/stand on the map and shape their bodies to represent the region's topography (the way the land looks). Lying flat on the map may show coastal plains while pairs of student may sit in the cross timbers locking arms and legs to show the region as a barrier to human movement.
5. Repeat the activity at least one time with students assigned to study a different region. Repeating this activity over several sessions increases students' knowledge of regions.

Image: Students on map outlining the shape of Texas



### **Assessment**

1. At the conclusion of the group descriptions, students will be divided into three or four teams to play a relay game, "Where am I?" To begin, the leader gives a description of a region (see information resource paragraphs above). Information may be transferred to cards and students may take turns drawing a card and reading aloud the characteristics of a region on the card. The first person in each team then moves to that region and sits down. The leader asks the first one seated to name the region. Correct answer = team gets a point. Continue game until all students on all teams have had at least two turns
2. Written Assessment: Students will describe one region (not their home area) in a descriptive paragraph. The description will explain where is it in relation to other regions and in relation to boundaries of Texas? What features, climate, and vegetation are typical of the region? What other region in Texas is most like this region?

### **Resource Maps** (available for download)

- 1) [River Basin Map of Texas](#) (Bureau of Economic Geology, University of Texas at Austin)
- 2) [Physiographic Map of Texas](#) (Bureau of Economic Geology, University of Texas at Austin)
- 3) [Texas Regions](#) from Texas Parks and Wildlife Department
- 4) [Texas Almanac Vegetation Areas of Texas](#)
- 5) [Vegetation Regions](#) (University of Texas Libraries, University of Texas at Austin)