Warm up: (8 min)
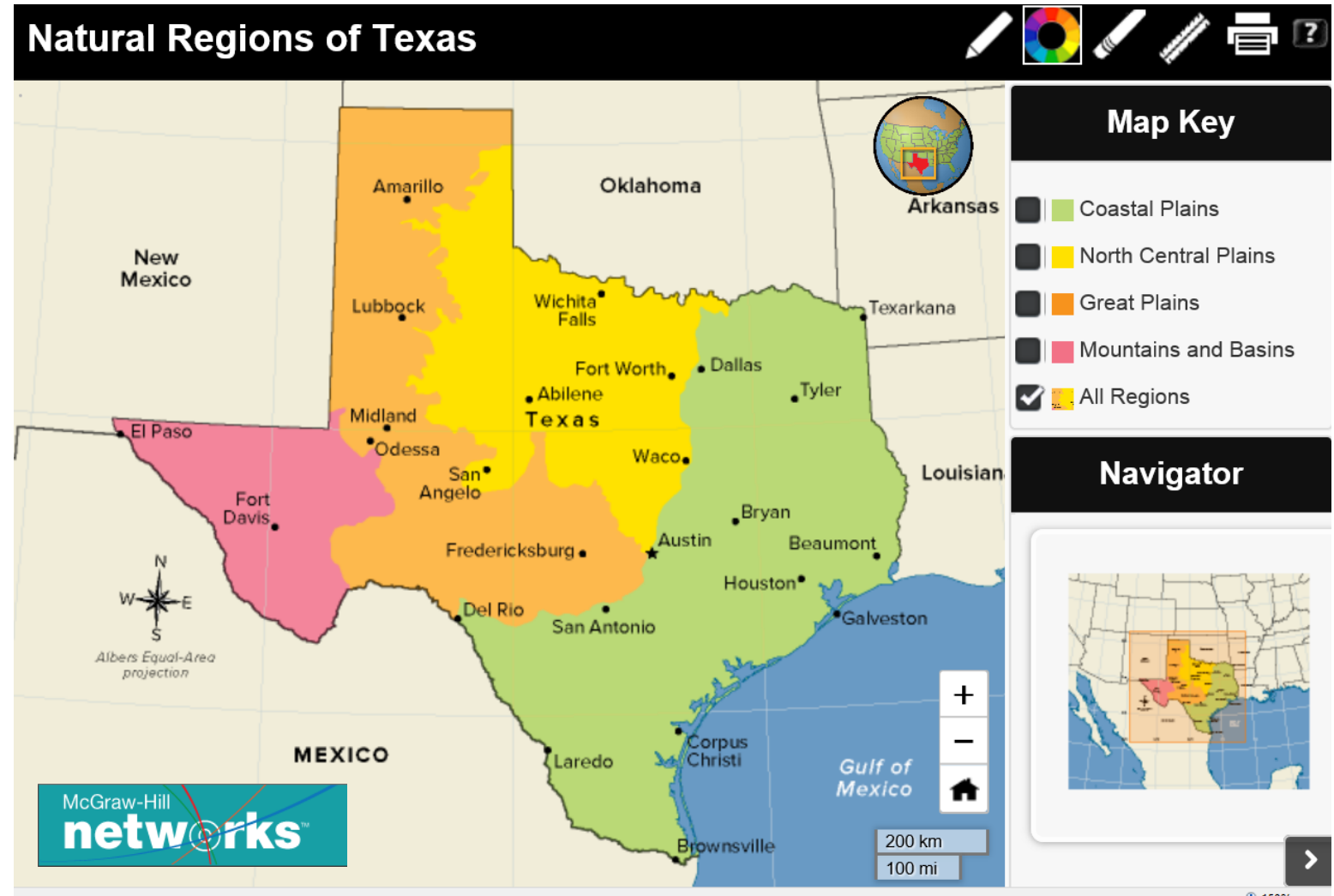Use the Map, On the Prom (Color) Paper (Blk/White) and answer the questions on your paper

Natural Regions of Texas

Map Key
- Coastal Plains
- North Central Plains
- Great Plains
- Mountains and Basins
- ☑ All Regions

Navigator

200 km
100 mi

TX History:

Mapping and Geography of Texas:
We will discuss some slides and write notes on others

Objectives:
- **I will be able to review my understanding of mapping and geography skills.**
- **I will be able to take what I know about the geography of Texas and map out the major cities, aquifers, plateaus, rivers, mountains, islands and border states/rivers.**
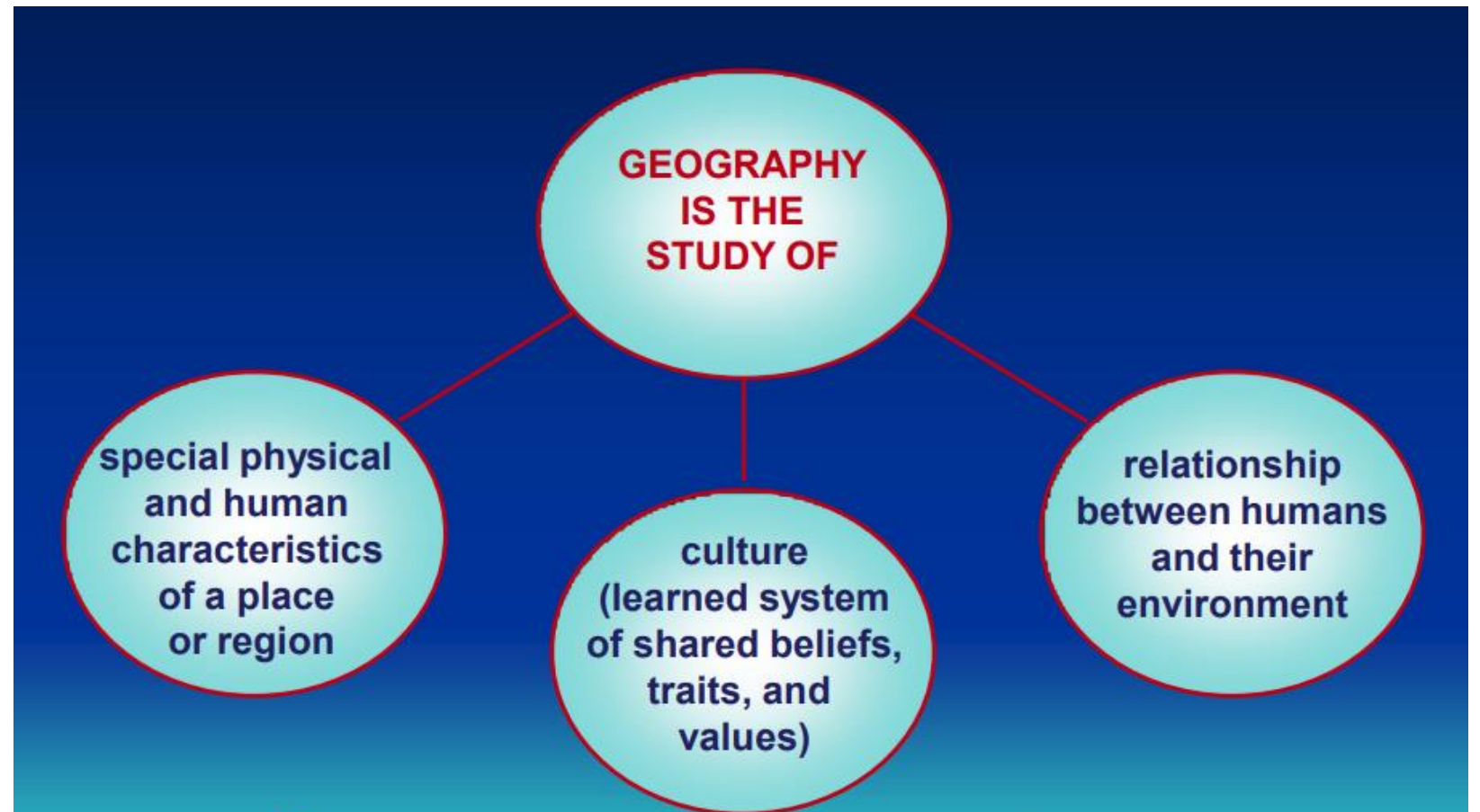
Vocabulary Term Review

*geography *compass rose *culture *longitude *ecosystem *latitude

1. Learned system of shared beliefs, traits & values

2. Study of the special physical & human characteristics of a place or region

3. Imaginary lines that run East and West on a globe or map

4. All of an area's plants and animals together with the non-living parts of their environment

5. Part of a map that points N*E*S*W on a map

6. Imaginary lines that run North and South on a globe or map

To understand Texas you must first learn about its Geography

- Geography- The study of the world, its people, and the interaction between them.

6 Elements of Geography

1. **The world in Spatial Terms**
2. **Places and Regions**
3. **Physical Systems**
4. **Human Systems**
5. **Environment and Society**
6. **The uses of Geography**

The World in Spatial Terms

- The first element of geography is understanding the world in spatial terms.
  - **Spatial** - of or relating to space.

- Texas is **BIG!!!!** Very big. It is the Second Largest state in the United States. Second only to Alaska

Sizing Up Texas

- Second largest US State

- The area of Texas is 267,277 square miles

- Some parts of Texas are closer to the capitals of other states than to Austin.

Texas is the combined size of...

*New York   *Ohio

*Connecticut *Massachusetts

*New Hampshire *Maine

*Pennsylvania *Illinois

*Rhode Island *Vermont

*New Jersey

Sizing Up Texas

- **El Paso, Texas is closer to the Pacific Ocean than to Houston.**

- **Some students in Texas live 4 hrs from the nearest school**

- **How could these geographic facts affect Texas?**

Places & Regions

- A <u>place</u> has physical and human characteristics that make it special.

- A <u>region</u> is an area with common characteristics that make it different from surrounding areas

Types of Regions

- Formal- one or more shared characteristics
- Functional- different places that function together as a unit
- Perceptual- defined by people's shared attitudes, culture & feelings about the area

Place… What is it like?

Place refers to the physical & human characteristics of a location

- Physical Characteristics Include:
  - Landforms, Climate, Plants & Animals

- Human Characteristics Include:
  - Language, Religion, Architecture, Music, Politics; ways of life

Physical & Human Systems

Geographers study interactions among four physical systems

1. Atmosphere
2. Land
3. Water
4. Life

Physical & Human Systems

Human systems, or how humans interact with one another & the environment.

- What are some Human Systems?
  - Population Distribution
  - Population Growth
  - Population Movement
  - Cultural Groups
  - Communication
  - Trade
  - Transportation

Human-Environment Interaction

How do humans react to their environment and how does it affect them?

- Ex: Pollution

    Deforestation

    Hurricanes/Tornadoes

    Farming

    Damming Rivers to make lakes

Port Talbot Industry, South Wales December 98. Very heavy pollution here falls on nearby residential areas leading to increased illness locally. Particulate emissions are carried for long distances contaminating land and sea.

Human Systems

- Movement- How people move through environment
- Cultural Diffusion- new ideas brought by migrating people become widely accepted
- People bring ideas and goods with them when they move from one place to another

Location ...Where is it?

- <u>Absolute Location</u>- the exact location of a place on the Earth's surface

- <u>Relative Location</u>- the location of a place in relation to other places

The Absolute & Relative location of Texas affects it in many ways—How has Texas' relative location to Mexico affected it?

Regions

How does it compare to other places?

- Geographers divide areas into regions in order to better study them.
- Regions are places that are united based on common characteristics
- Regions can be based on physical, human, business & other characteristics

Physical Characteristics

Human Characteristics

WELCOME TO AGGIELAND

HOME OF THE 12TH MAN

How many rivers serve as boundary lines for TX? What are there names?

Major Rivers of Texas

Environment and Society

- One of the most important topics in **geography** is how people interact with the environment.
  - Positive vs Negative affects
- The environment affects humans as well.
  - Physical features influence where people live.
  - Natural resources important to human survival
    - Air, water, land

The Uses of Geography

- Geography helps people understand the present as well as the past
  - Ex. Increased population in Texas has caused challenges for human interaction with the environment.

  What are other ways Geography helps understand present and past?

Using Maps...

- Maps are important tools for geographers & historians
- Maps, allow information to be organized visually
- Maps can be used to locate places:
  - Absolute Location
  - Relative Location

Using Maps…

Main Parts of a Map:

*Title *Scale *Legend

*Compass Rose

Maps are created by Geographers for different purposes…

What are the uses of the different types of maps?

REFERENCE MAP: POLITICAL

used to show locations of such features as countries, states, cities, towns, capitals, borders, and roads

REFERENCE MAP: PHYSICAL

used to show and find locations of such natural features such as terrain, rivers, and other bodies of water
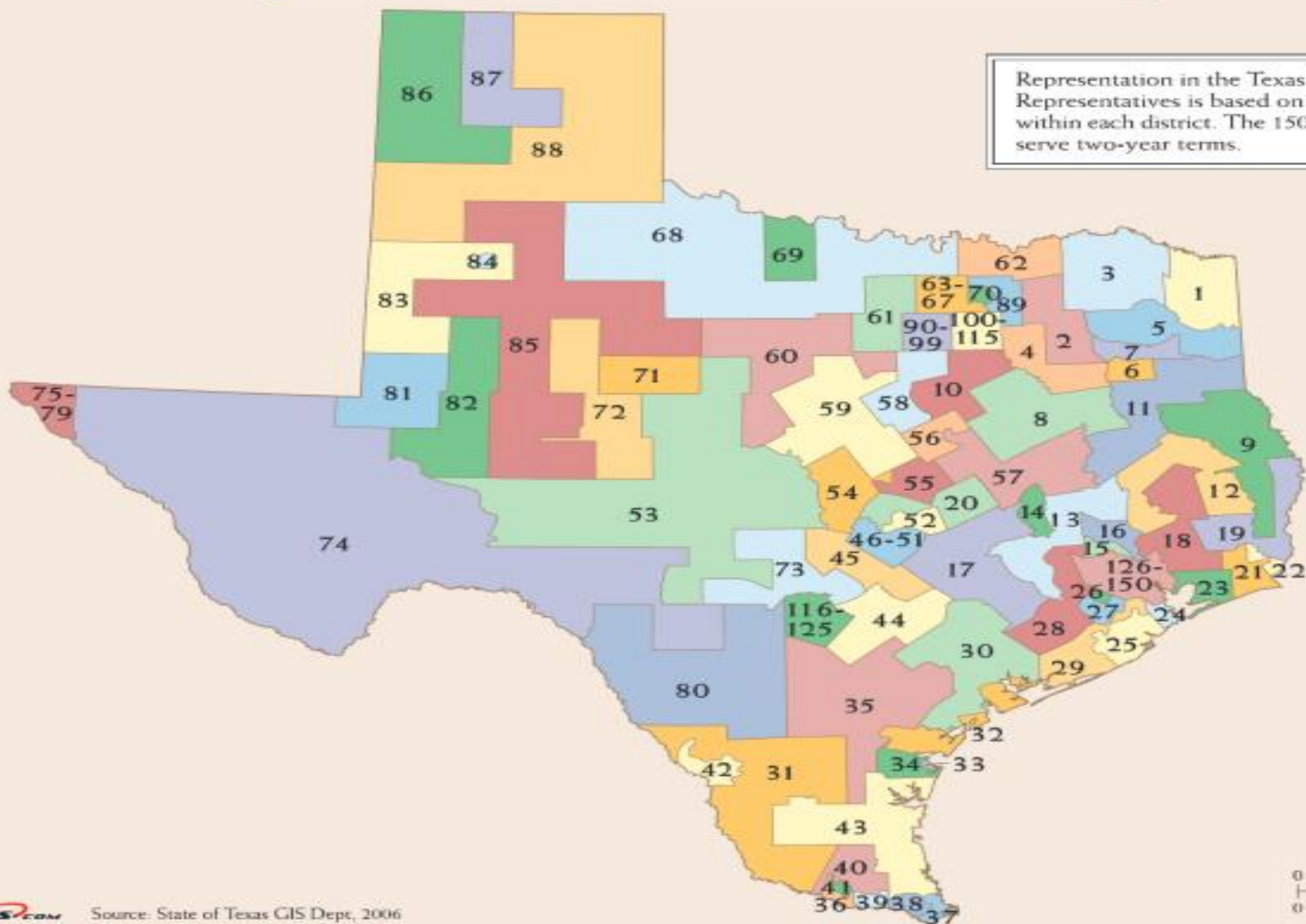
THEMATIC MAP:

used to show a specific topic, theme, or spatial distribution of an activity, such as cattle ranching or climate patterns
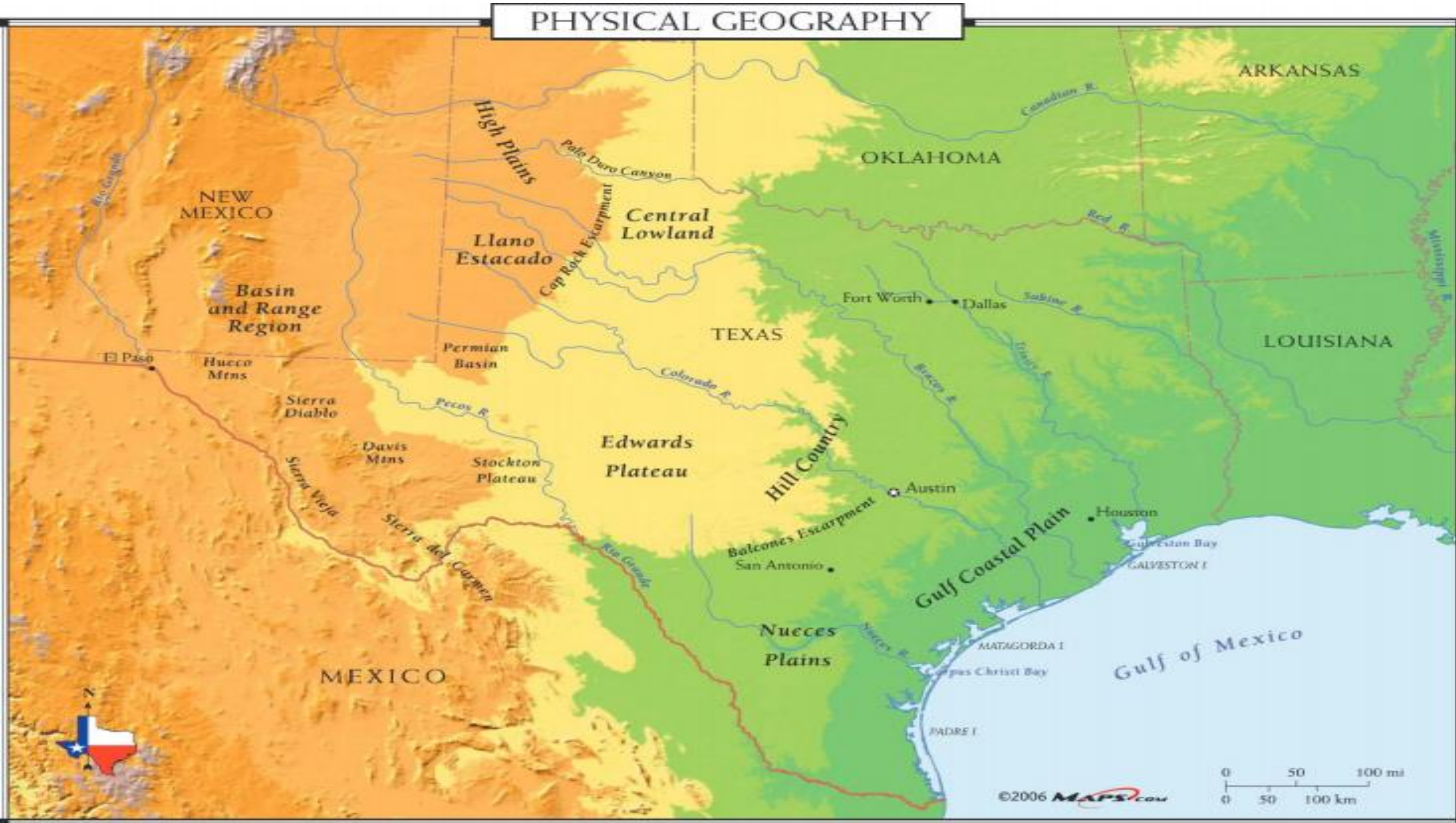
STATE REPRESENTATIVE DISTRICTS

Representation in the Texas State House of Representatives is based on the population within each district. The 150 representatives serve two-year terms.

©2006 MAPS.com   Source: State of Texas GIS Dept, 2006

PRECIPITATION

Average Annual Precipitation

- 64 inches
- 48 inches
- 32 inches
- 24 inches
- 16 inches
- 8 inches
- 0 inches

OKLAHOMA

ARKANSAS

NEW MEXICO

LOUISIANA

El Paso

8

16

16

20

Colorado R.

24

28

Brazos R.

Fort Worth

Dallas

32

40

48

48

56

Austin

Houston

San Antonio

Pecos R.

Rio Grande

MEXICO

Gulf of Mexico

Canadian R.

Red R.

Sabine R.

Mississippi R.

N

0   50   100 mi

0   50   100 km

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MOUNTAINS AND BASINS

EDWARDS PLATEAU

GULF COASTAL PLAINS

Hueco Mountains 5,500 ft.

Delaware Mountains 5,870 ft.

6,000 ft. — 1,829 m

5,000 ft. — 1,524 m

King Mountain 3,141 ft.

El Paso

Profile Line

Port Arthur

4,000 ft. — 1,220 m

El Paso 3,695 ft.

Eldorado 2,439

3,000 ft. — 904 m

Pecos River 2,617 ft.

Fredericksburg 1,702 ft.

2,000 ft. — 610 m

Austin 501 ft.

Bastrop 450 ft.

Houston 40 ft.

Port Arthur 10 ft.

1,000 ft. — 305 m

Sea Level — Sea Level

|←——————————— 773 miles ———————————→|

Interpreting Charts Moving from east to west, the elevation of Texas rises and the landscape becomes more rugged. How much higher are the Delaware Mountains than Port Arthur?

Elevation in feet
- 5,000–10,000
- 2,000–5,000
- 1,000–2,000
- 500–1,000
- 0–10

MEXICO

Rio Grande

Falcon Res.

Gulf of Mexico
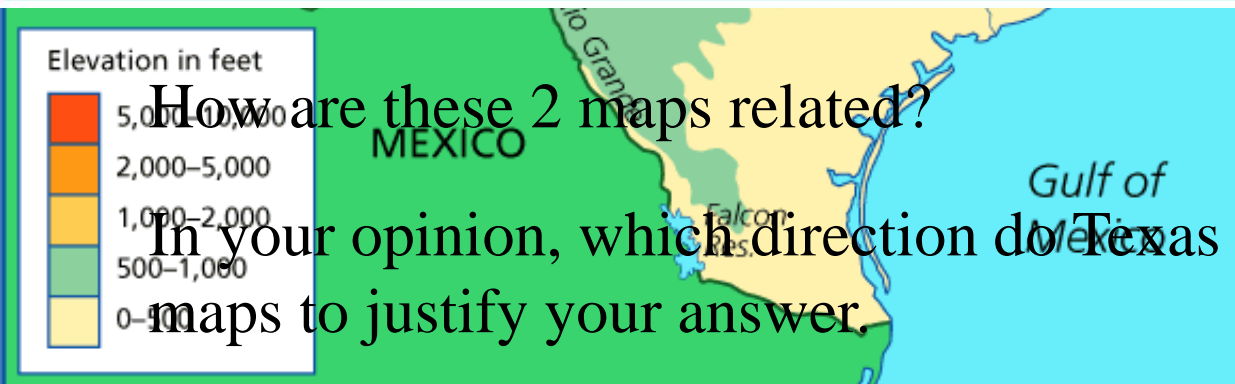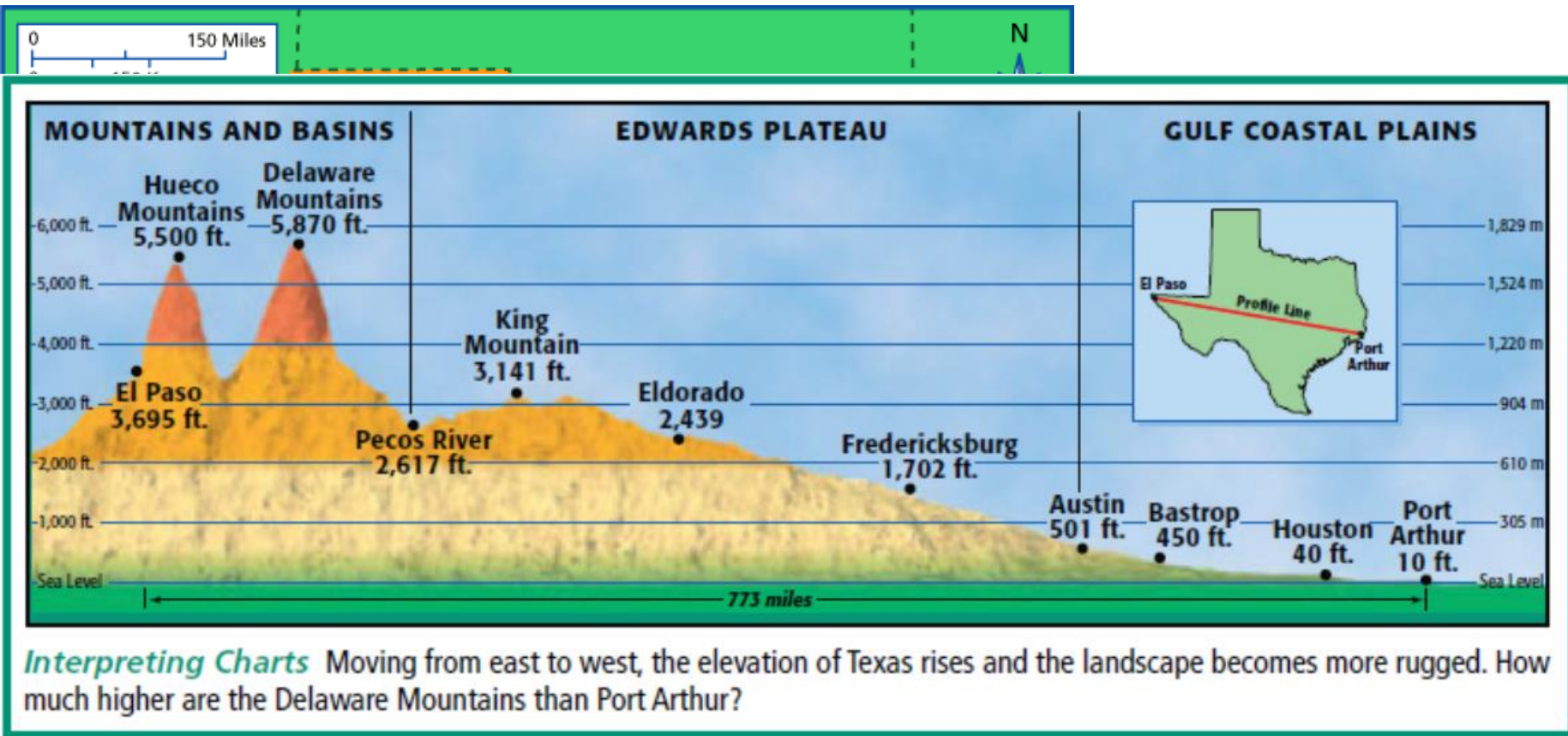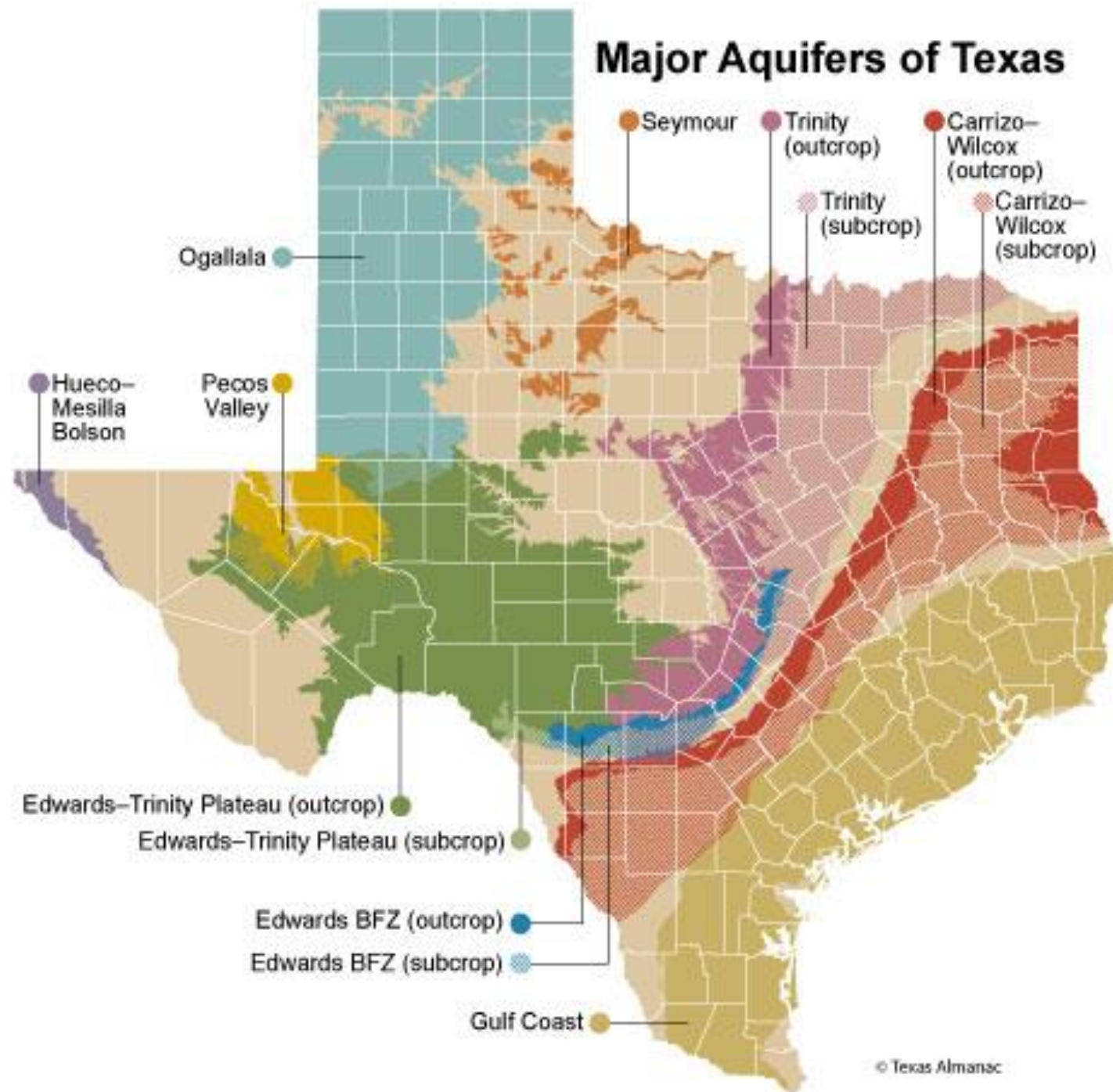
How are these 2 maps related?

In your opinion, which direction do Texas river run? Use the maps to justify your answer.

Major Aquifers of Texas

- Ogallala
- Hueco–Mesilla Bolson
- Pecos Valley
- Seymour
- Trinity (outcrop)
- Trinity (subcrop)
- Carrizo–Wilcox (outcrop)
- Carrizo–Wilcox (subcrop)
- Edwards–Trinity Plateau (outcrop)
- Edwards–Trinity Plateau (subcrop)
- Edwards BFZ (outcrop)
- Edwards BFZ (subcrop)
- Gulf Coast

© Texas Almanac

Read p. 23 in your textbook about Texas lakes and aquifers.

Average Annual Temperature

Legend:
- Above 75° F
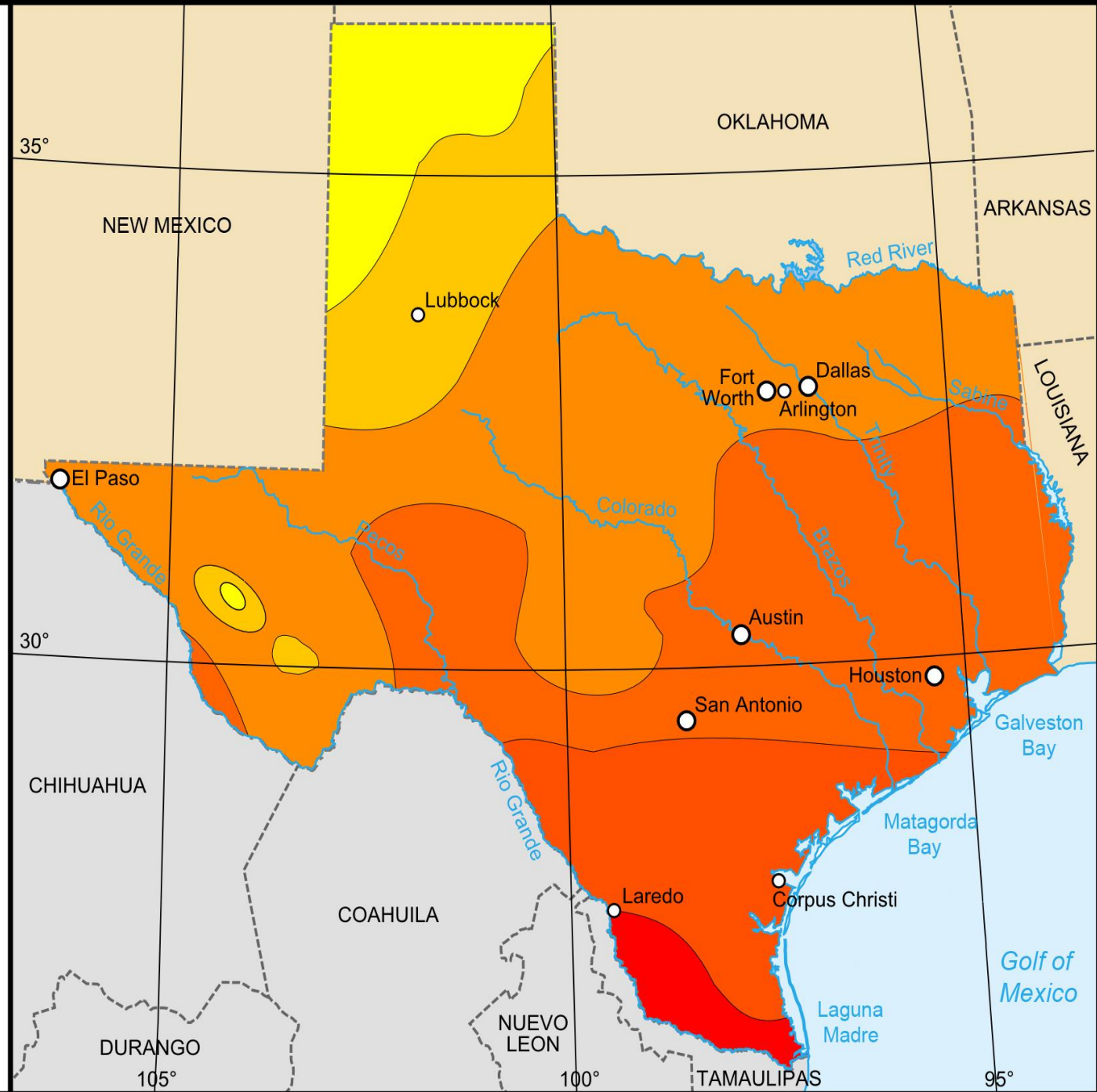- 70° F - 75° F
- 65° F - 70° F
- 60° F - 65° F
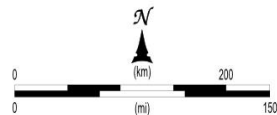- 55° F - 60° F
- 50° F - 55° F

- United States
- Mexico

10 Most Populated Cities
- ○ 500,000
- ○ 250,000 - 500,000

N

(km) 0   200
(mi) 0   150

Map labels:

OKLAHOMA

NEW MEXICO

ARKANSAS

Red River

Lubbock

Fort Worth
Dallas
Arlington

LOUISIANA

Sabine

El Paso

Colorado

Pecos

Rio Grande

Brazos

Austin

Houston

San Antonio

Galveston Bay

CHIHUAHUA

Mexico

Matagorda Bay

Laredo

Corpus Christi

COAHUILA

Rio Grande

NUEVO LEON

DURANGO

TAMAULIPAS

Laguna Madre

Gulf of Mexico

35°

30°

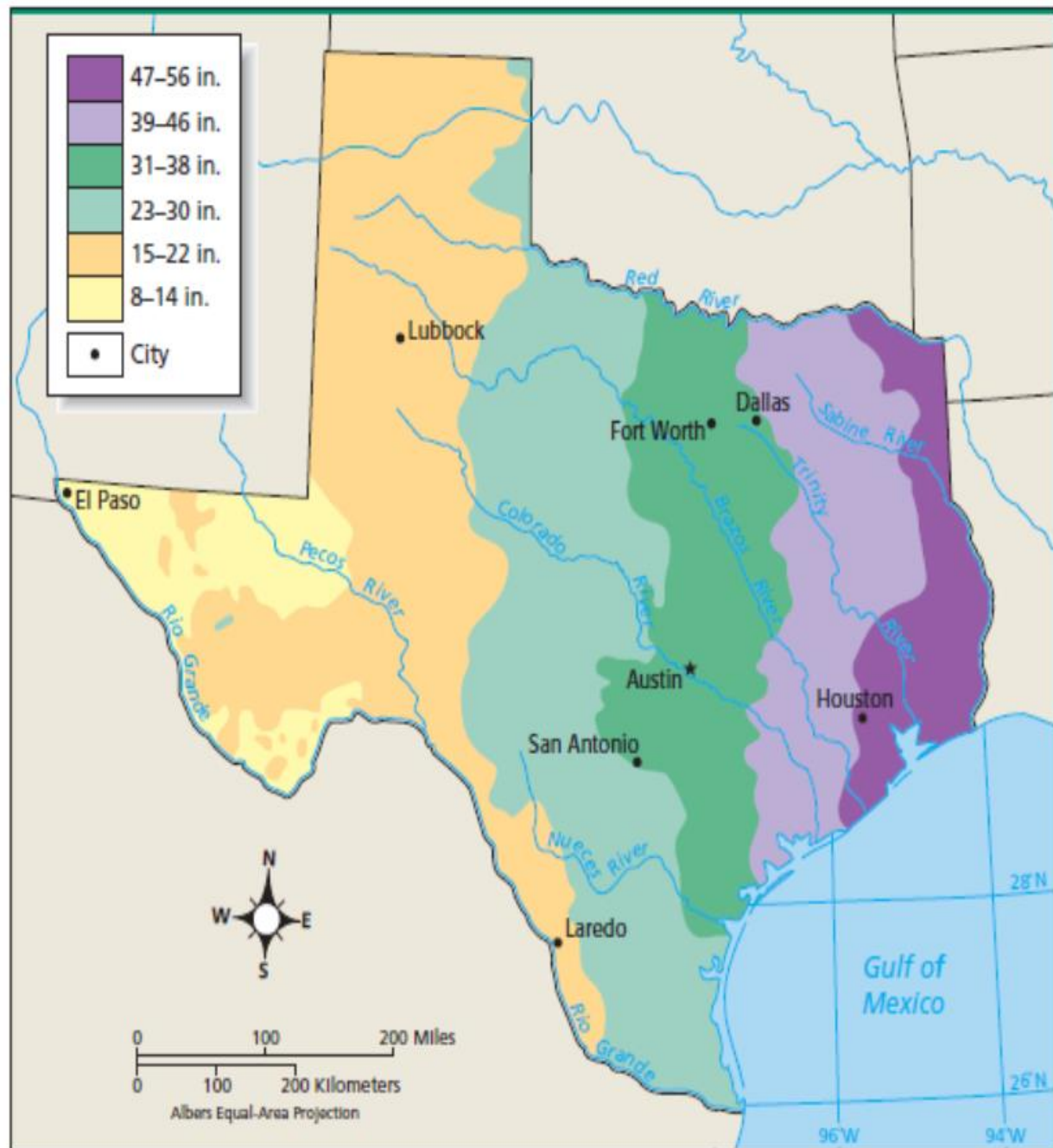105°

100°

95°

Zones of Annual Average Precipitation

Interpreting Maps As you move from east to west, Texas receives less and less rainfall.

1. *Places and Regions*
   Which region of Texas receives the most precipitation?

2. *Analyzing Information*
   How much rain does the westernmost region receive?

Legend:
- 47–56 in.
- 39–46 in.
- 31–38 in.
- 23–30 in.
- 15–22 in.
- 8–14 in.
- City

Cities: Lubbock, El Paso, Dallas, Fort Worth, Austin, Houston, San Antonio, Laredo

Rivers: Red River, Pecos River, Rio Grande, Colorado River, Brazos River, Trinity River, Sabine River, Nueces River

Gulf of Mexico

N W E S

0 100 200 Miles
0 100 200 Kilometers
Albers Equal-Area Projection

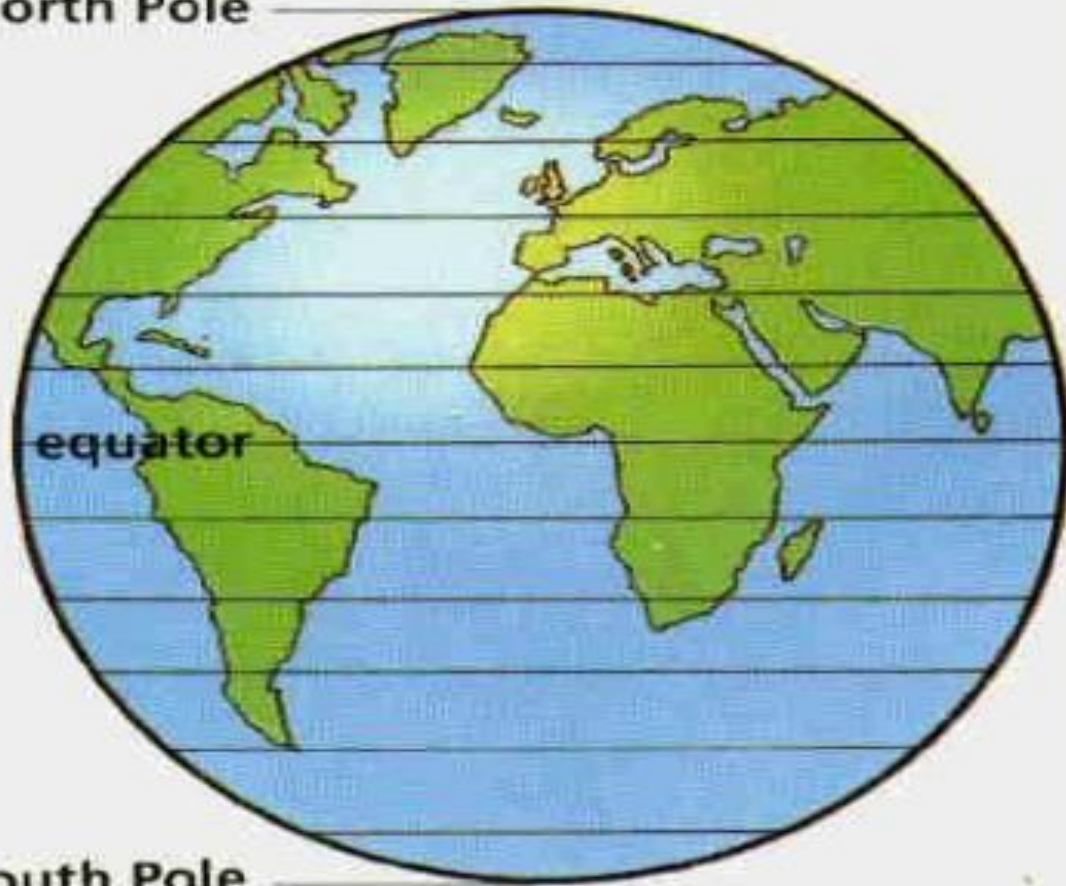28°N 26°N 96°W 94°W

Using Latitude and Longitude

- The Absolute Location of a place is given using latitude and longitude coordinates

- Coordinates are written using a numerical measurement and a directional label.

- Latitude is given first followed by longitude

- (29° N, 95° W) is the approximate location of Kingwood on the earth's surface
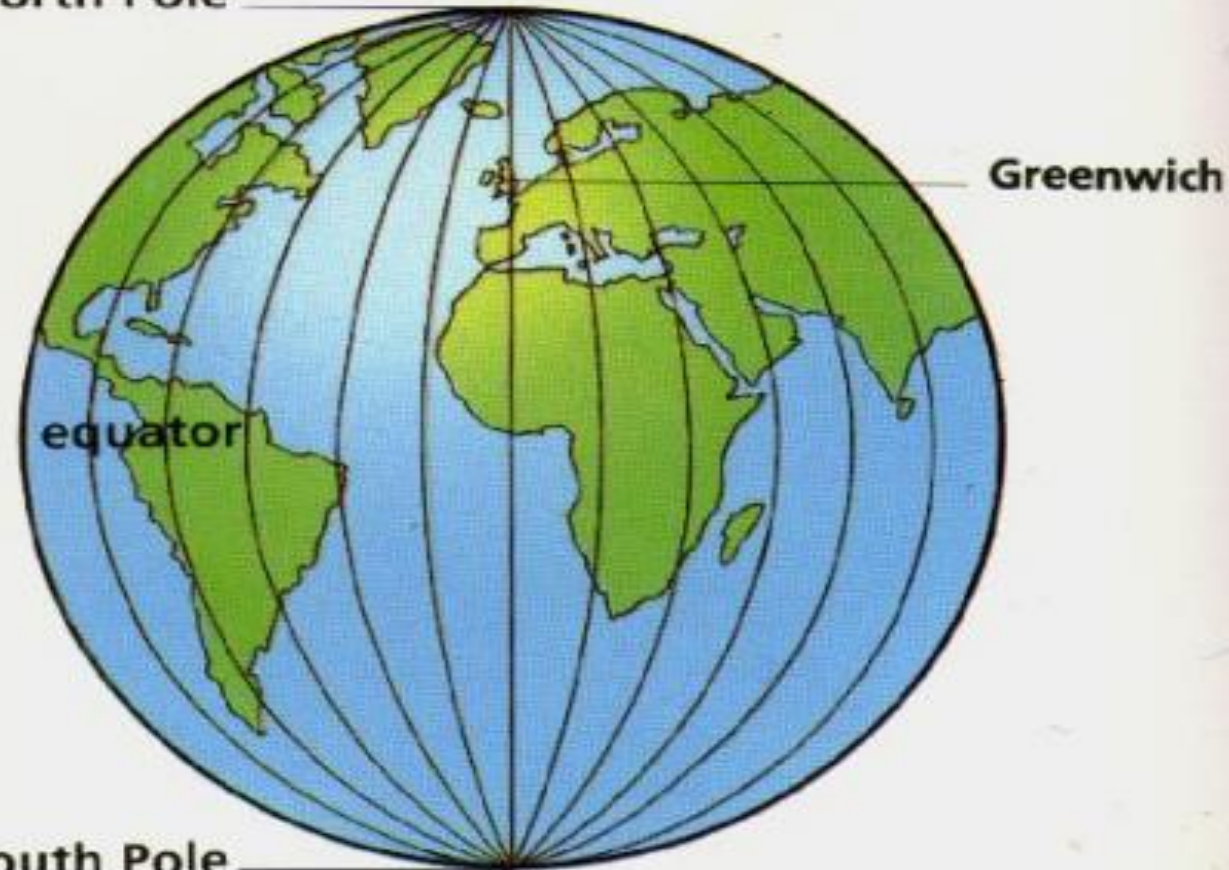
Latitude and Longitude

Latitude

North Pole

equator

South Pole

Longitude

North Pole

Greenwich

equator

South Pole

Why Geography?

- Geography prepares us for modern life

- People, businesses, governments depend on geography everyday to meet their needs

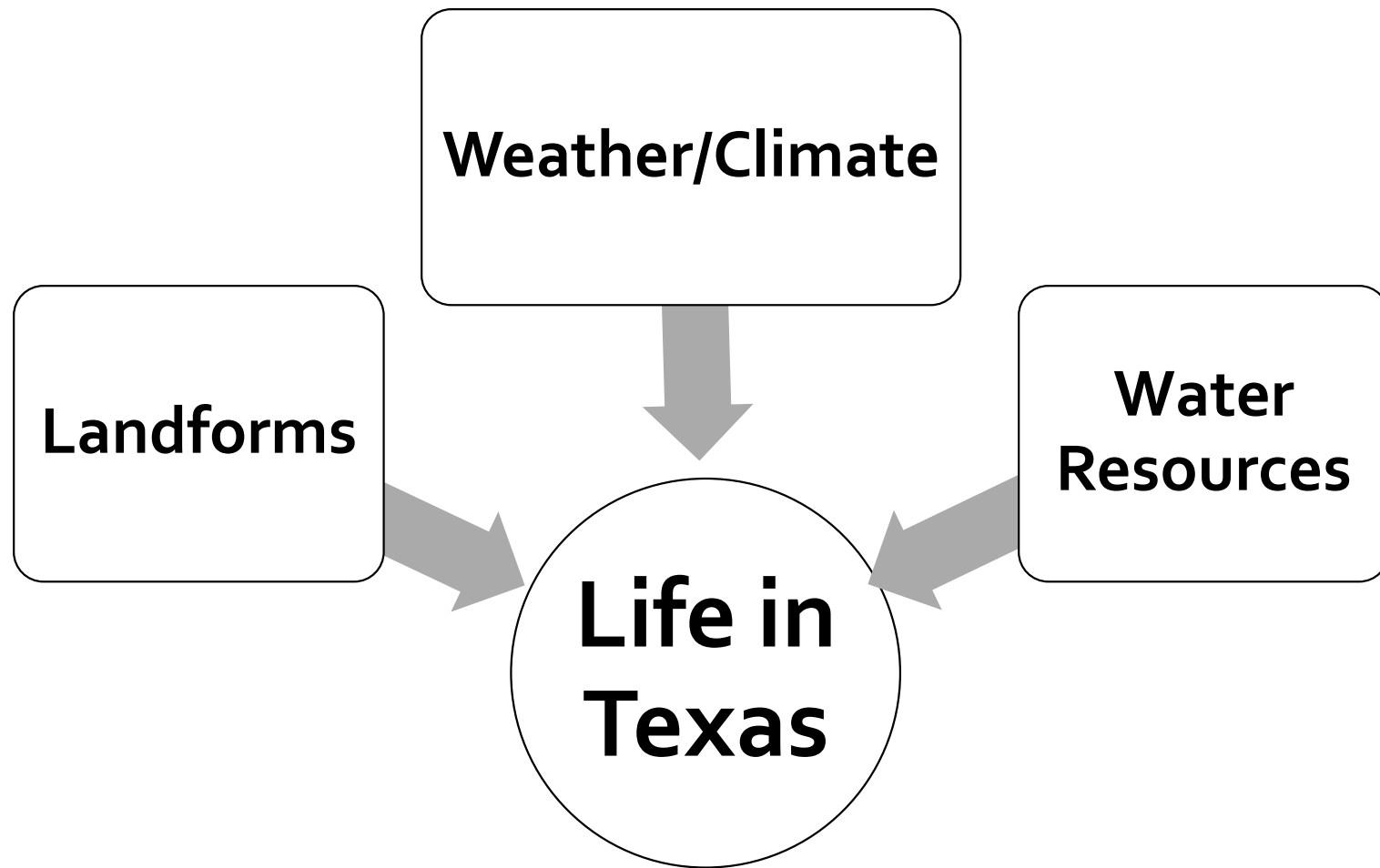- Computer software such as GIS and GPS use geography to help people

Mapping Texas

With a partner:

1. Combine your knowledge from today, what you've learned in the past and as a LAST RESORT…the internet to correctly plot and label your maps of Texas

2. Color the map using Map (colored) Pencils

   *remember the maps that we discussed and viewed in class…what colors show landforms such as mountains and plateaus, what color would best be used for rivers, what color to represent an Island, what color to show the various surface types of Texas from the Desert, Plains, Forests, Hills etc.

Think About It—then—Write About It:
Explain how landforms, water resources, and weather/climate can affect life in Texas.