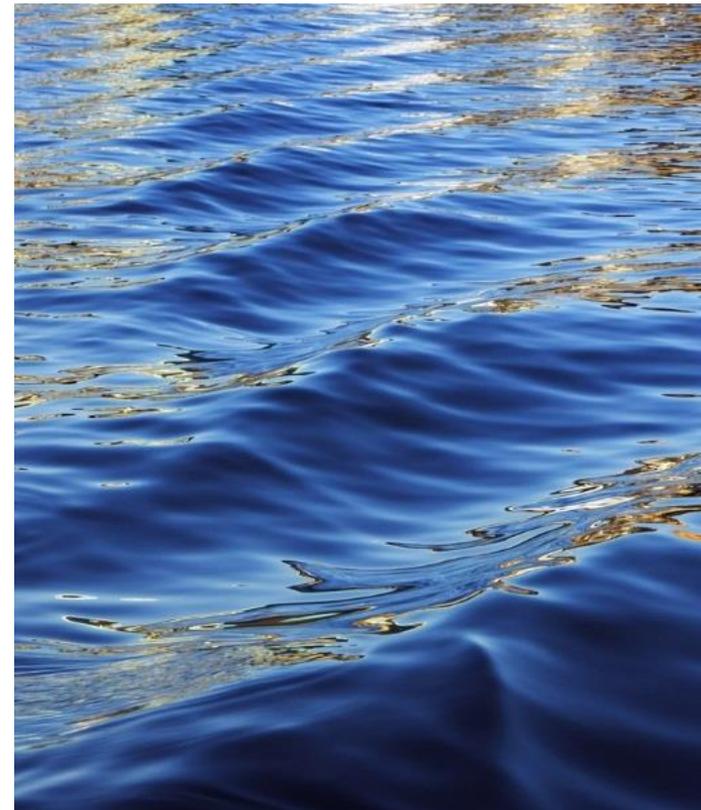


5 Themes of Geography



Geography

Geographers, view the world by looking at the use of space on the earth and the interactions that take place there. They look for patterns and connections between people and the land that they live on.

Geography, then, is the study of the distribution and interaction of physical and human features on the earth.

- Geography Tools
 - Maps
 - photographs to gain visual evidence about a place.
 - charts, graphs, or tables
- 5 Themes of Geography

The Five Themes

Location

Where is it?

Place

What is it like?

Region

How are places similar or different?

Movement

How do people, goods, and ideas move from one location to another?

Human-Environment Interaction

How do people relate to the physical world?

5 Themes of Geography - Location

Location - Where is it?

2 types of Location

- **Absolute location** is the exact place on earth where a geographic feature, such as a city, is found.
- **Absolute Location** - To describe absolute location, geographers use a grid system of imaginary lines for precisely locating places on the earth's surface
- To find an absolute location using the grid system, you need to find the point where the latitude and longitude lines cross
- **Relative location** describes a place in comparison to other places around it.
- **Relative Location** Relative location describes how a place is related to its surrounding environment

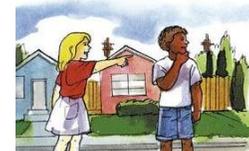
Location

There are two kinds of location.

The **absolute location** of an area is its exact location on the earth. People use lines of latitude and longitude to determine absolute location.

Lines of latitude go around the earth in an east-west direction above and below the equator.

Lines of longitude run in a north-south direction and meet at the poles.

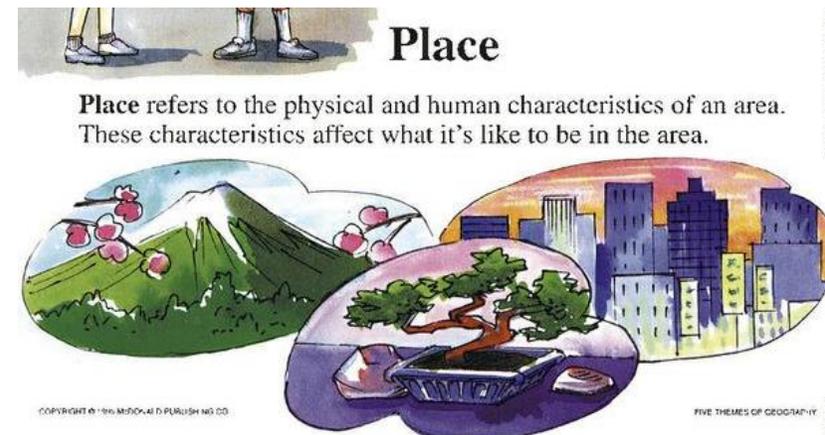
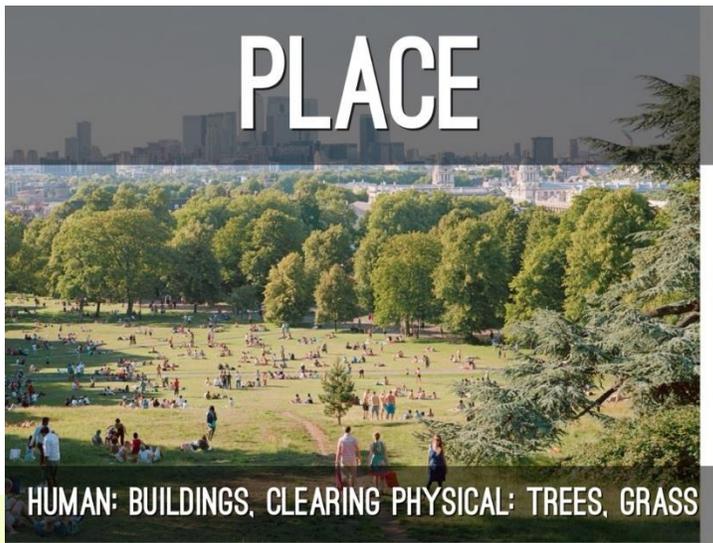


The **relative location** of a place refers to its position when compared to a known landmark. People often use relative location when giving directions. For example, you might tell a friend that your home is three blocks west of your school.

5 Themes of Geography - Place

Place – What is it like?

- Place includes the physical features and cultural characteristics of a location.
- All locations on earth have physical features that set them apart, such as climate, landforms, and vegetation.
- Other features are the product of humans interacting with the environment, such as by building dams, highways, or houses. Still others are the result of humans interacting with animals or with each other.



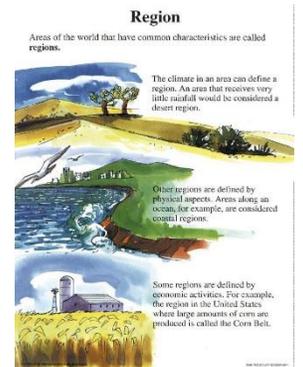
5 Themes of Geography - Regions

Region - "How are places similar or different?"

- A [region](#) is an area of the earth's surface with similar characteristics.
- Regions usually have more than one characteristic that unifies them.
- These may include physical, political, economic, or cultural characteristics.
- For example, the Sunbelt in the southern United States is a physical region. Geographers categorize regions in three ways: formal, functional, and perceptual regions.

FORMAL REGIONS A formal region is defined by a limited number of related characteristics.

- A [formal region](#) is defined by a limited number of related characteristics.
- For example, the Sahel region of Africa is a desert area characterized by specific climate, vegetation, and land use patterns.
- The regions you'll explore generally are defined by continental area and by similar cultural styles.



5 Themes of Geography - Regions

FUNCTIONAL REGIONS

- A [functional region](#) is organized around a set of interactions and connections between places.
- Usually a functional region is characterized by a hub, or central place, and links to that central place.
- For example, a city and its suburbs may form a functional region.
- Highways, commuter railroads, subways, and bus lines move people from the suburbs to the city for jobs and other activities. Because the city and its suburbs are connected by a great deal of movement back and forth, they form a functional region.

PERCEPTUAL REGIONS

- A [perceptual region](#) is a region in which people perceive, or see, the characteristics of the region in the same way.
- However, the set of characteristics may not be precisely the same for all people.
- It is how people feel about a area.

5 Themes of Geography – Human Environment Interaction

Human–Environment Interaction- How do people relate to the physical world

- People learn to use what the environment offers them and to [change that environment](#) to meet their needs.
- They also learn to live with aspects of the environment that they cannot control, such as climate.
- People living in similar environments do not respond to them in the same way. For example, some people view a hot, sunny climate near a body of water as ideal for recreational activities. Others may see this as an opportunity for raising citrus, olives, or grapes.
- Human beings work to alter their environments to make them better places or to provide needed goods. People may drain swamps or dig irrigation ditches to grow crops in a particular environment. Sometimes the alterations create new problems, such as pollution.

5 themes of Geography - Movement

Movement - How do people, goods, and ideas move from one location to another

- Geographers are interested in the ways people, goods, and ideas move from place to place.
- Geographers analyze movement by looking at three types of distance: linear distance, time distance, and psychological distance.
- Linear distance simply means how far across the earth a person, an idea, or a product travels. Physical geography can affect linear distance by forcing a shift in a route to avoid impassable land or water.
 - Time distance is the amount of time it takes for a person, an idea, or a product to travel. Modern inventions have shortened time distances.
 - Psychological distance refers to the way people view distance. When you were younger, some locations seemed very far away. As you grew older, the distance to these locations probably seemed to shrink. Studies show that, as we become familiar with a place, we think it is closer than it actually is. Less familiar places seem to be further away. Psychological distance may influence decisions about many different human activities.

Geographic Tools

GEOGRAPHIC INFORMATION SYSTEMS

- The newest tool in the geographer's toolbox is Geographic Information Systems (GIS). GIS stores information about the world in a digital database.
- GIS has the ability to combine information from a variety of sources and display it in ways that allow the user to visualize the use of space in different ways.
- When using the system, geographers must look at a problem and decide what types of geographic information would help them solve the problem.
- The information could include maps, aerial photographs, satellite images, or other data. Next, they select the appropriate layers of information.
- Then, GIS creates a composite map combining the information.

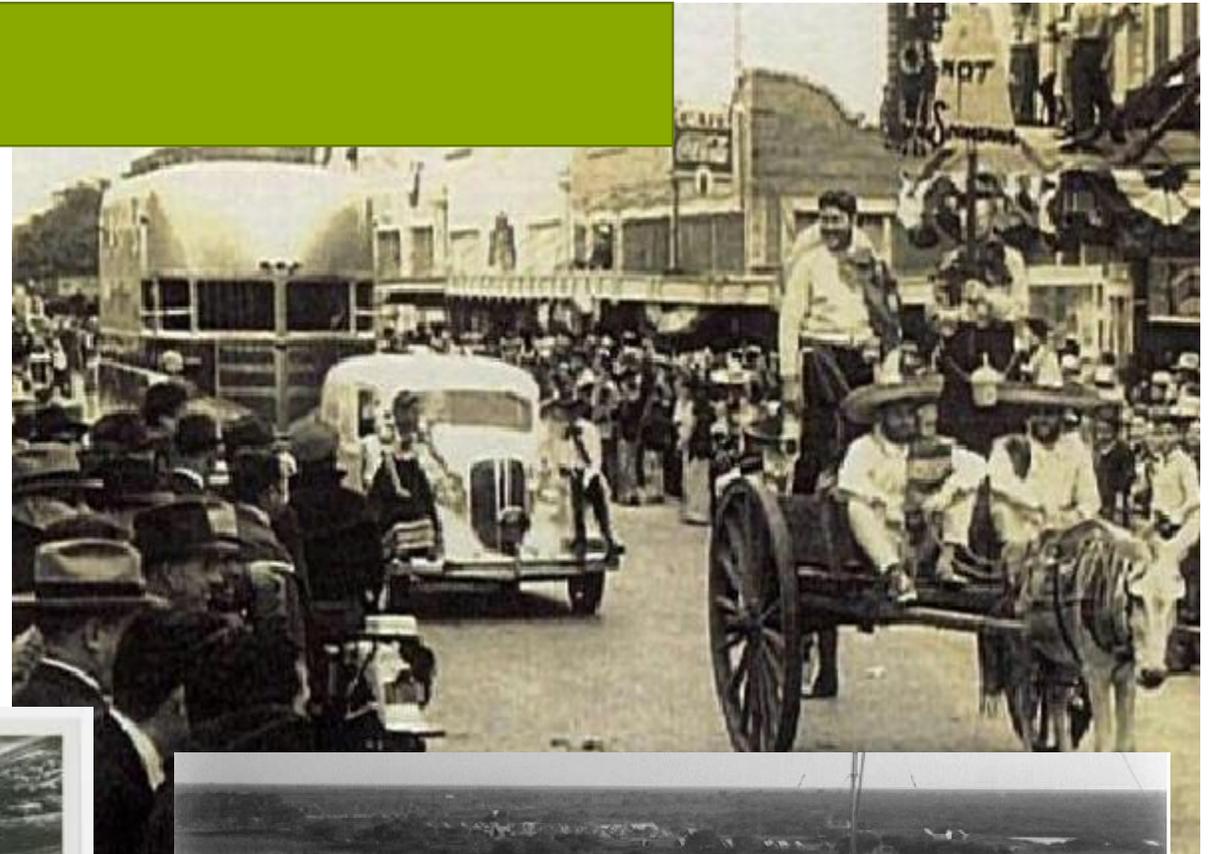
GLOBAL POSITIONING SYSTEM (GPS)

- A familiar tool of geographers is GPS or Global Positioning System. It was originally developed to help military forces know exactly where they were on the earth's surface. The system uses a series of 24 satellites called Navstars, which beam information to the earth.
- The exact position—latitude, longitude, altitude, and time—is displayed on a hand-held receiver. Hikers, explorers, sailors...

Photos



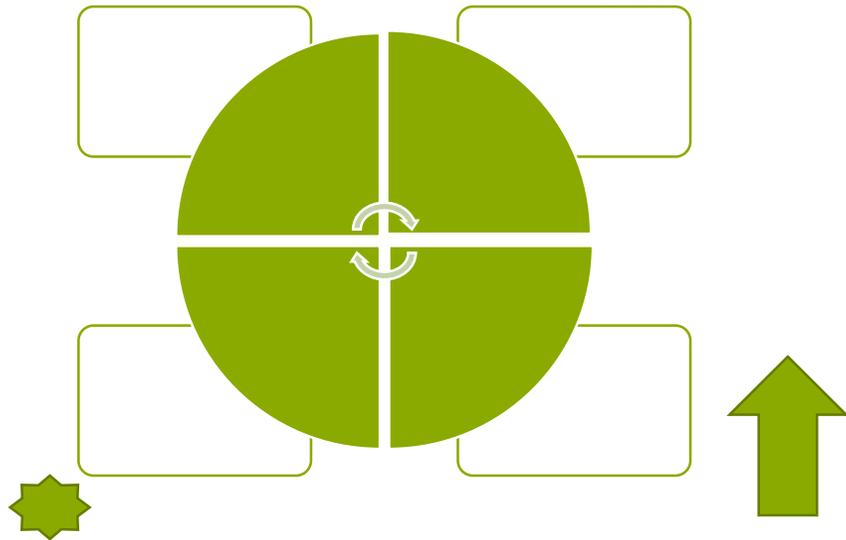
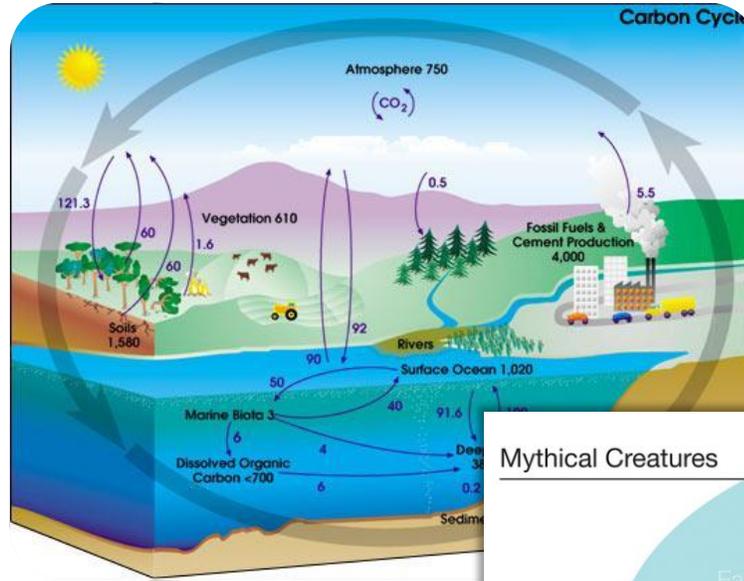
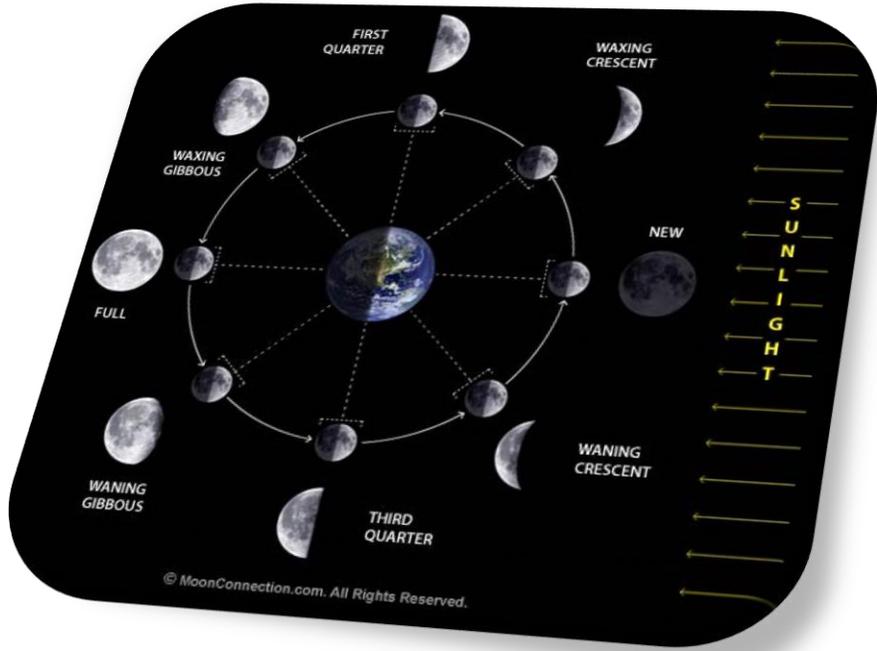
International Bridge, July 5, '10 Brownsville, Texas.



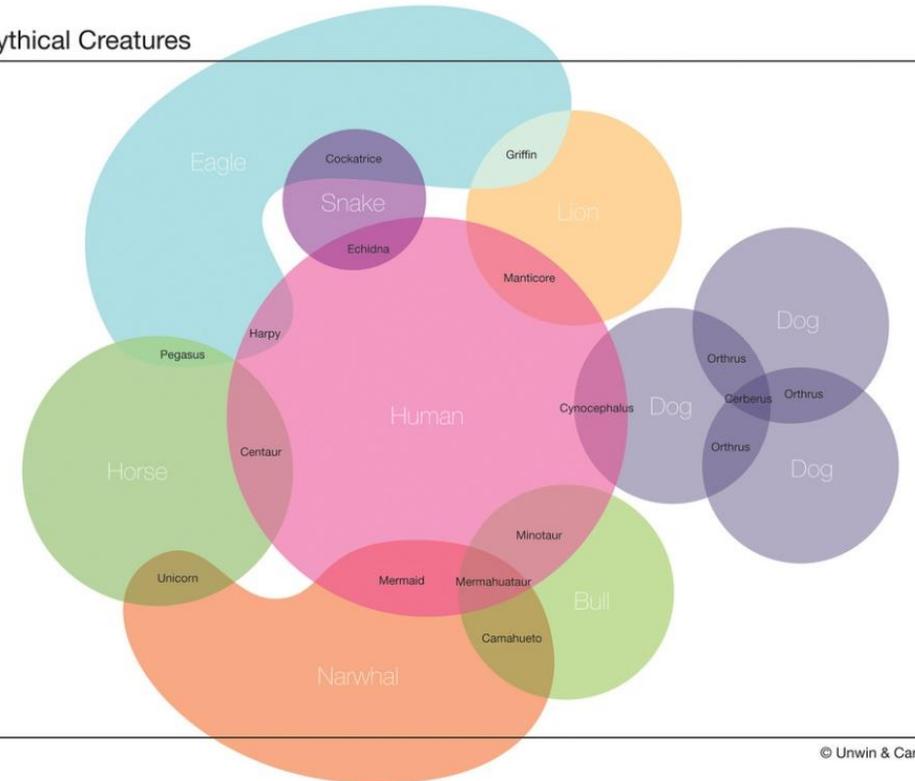
Brownsville JH Basketball team



Diagrams



Mythical Creatures



Steps to Understanding a Table Graph

1. Look at the table – examine the title which describes it is about.

2. Examine the categories - each column has a heading or description of what it represent

3. Draw conclusions from the data – try to find trends/tendencies from each category and then make a conclusion

4. To find specific information from a Table:, you need to see where the columns and rows meet

city	Mission
agency type	local school district
number of schools	15
grade span	pre-kindergarten to 12 th grade
total students	9274 people
total teachers	572.8 people (full-time equivalents)
student/teacher ratio	16.19
total expenditures	\$88.27 million per year
expenditures per student	\$9518 per person per year

(2008–09 school year estimates)

WORLD POPULATION, 1950–2000
(in millions)

Region	1950	2000
Africa	198	819
Asia	1,308	3,698
North and South America	328	840
Europe	366	727



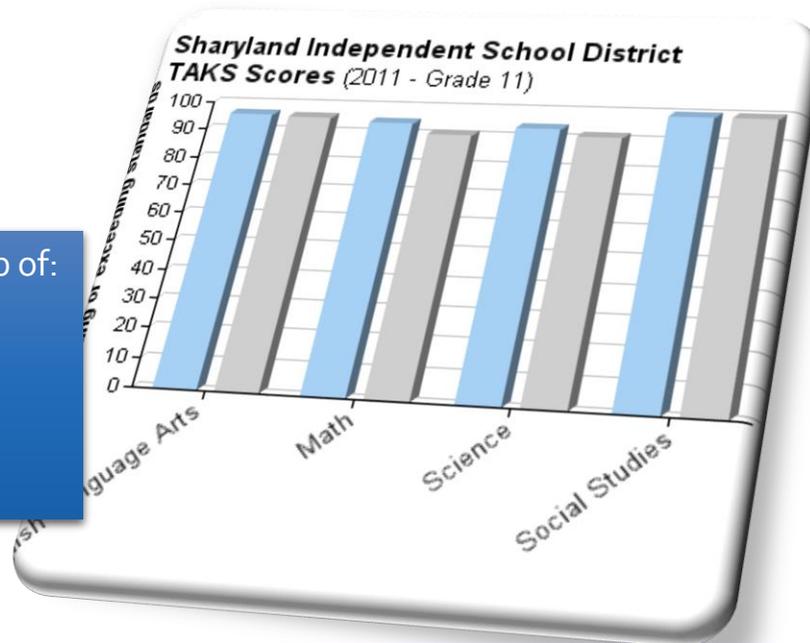
Steps to Understand Bar Graphs

- Look closely at the title of the graph
- Examine all the bars and or legend description
- All bars should be labeled and if not, a legend will be present to explain what each bar represents
- Look at the horizontal bars or bottom axis. That axis identifies what the bar represents.
- The vertical axis/left hand side of the graph this measures the length/size of the bars
- To find specific information you need to examine/compare the length of the different bars carefully

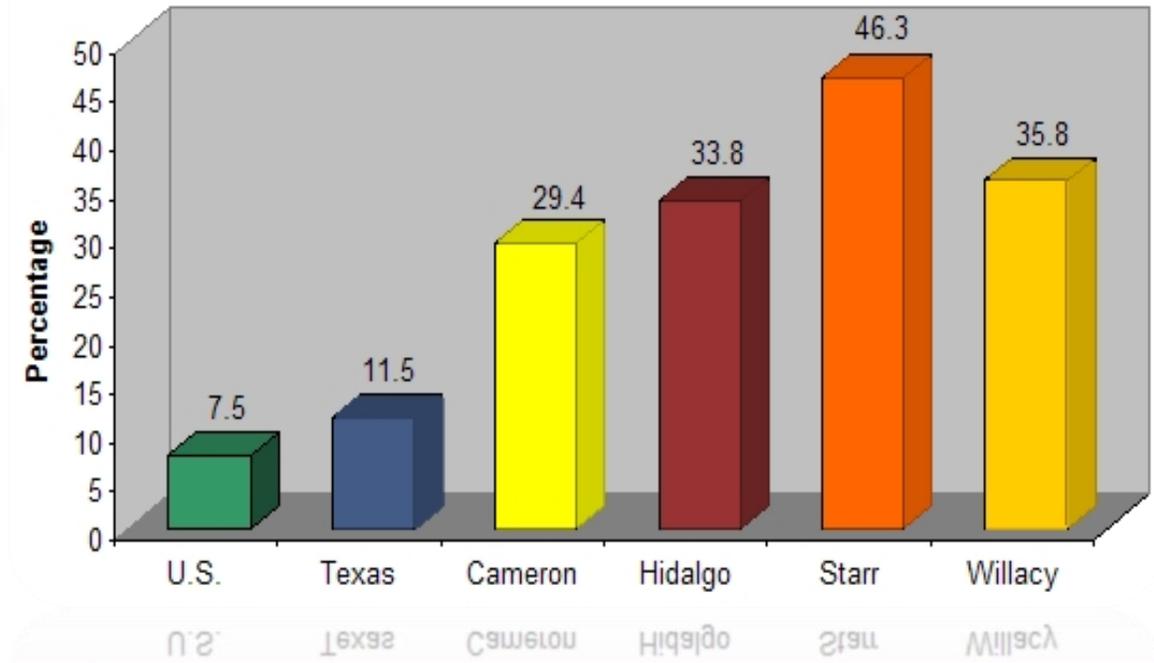


Bar chart graphs are made up of:

1. Parallel bars of different lengths
2. These bars are intended to compare two or more things

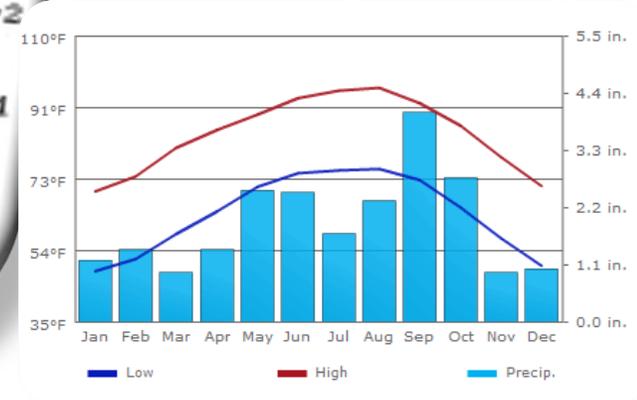
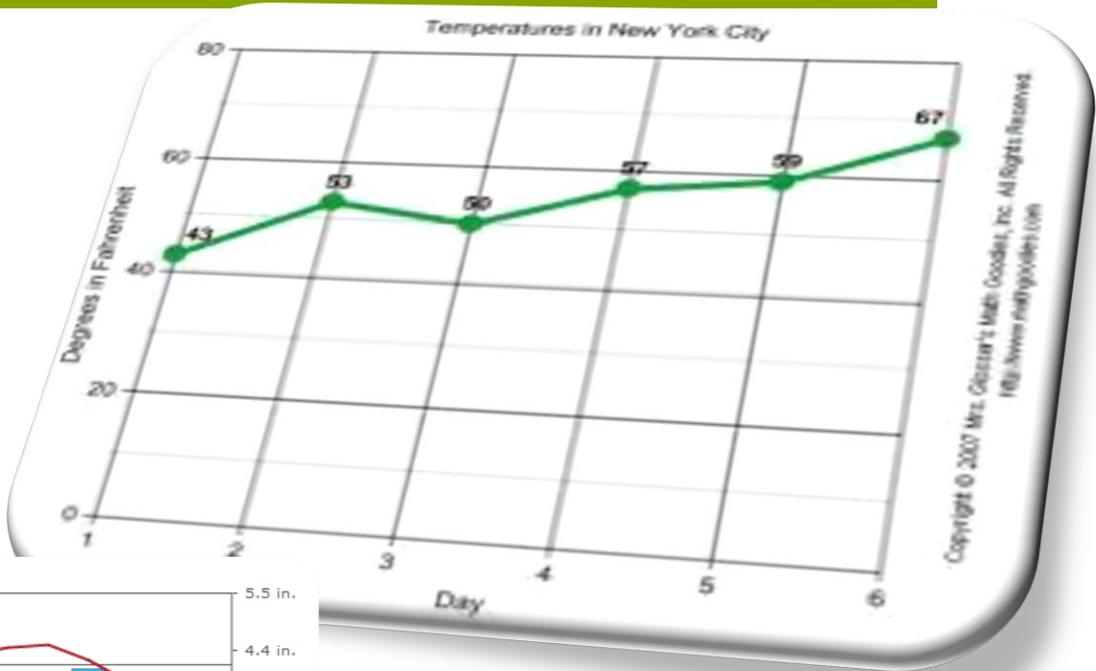
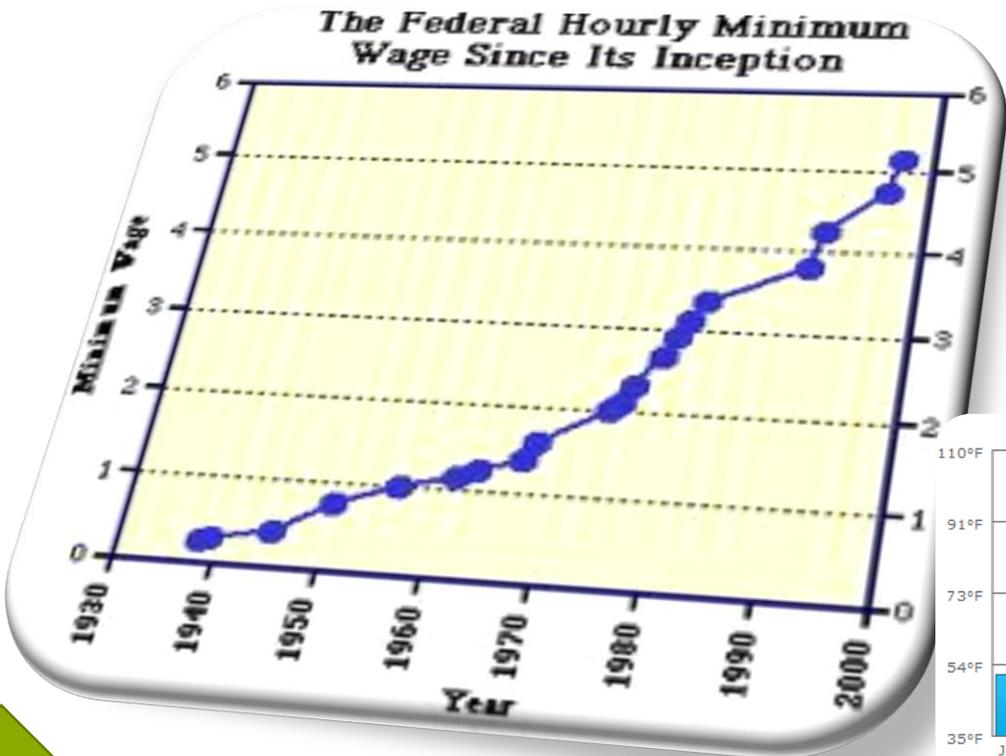


Population 25 Years of Age and Older with Less Than Ninth-grade Education



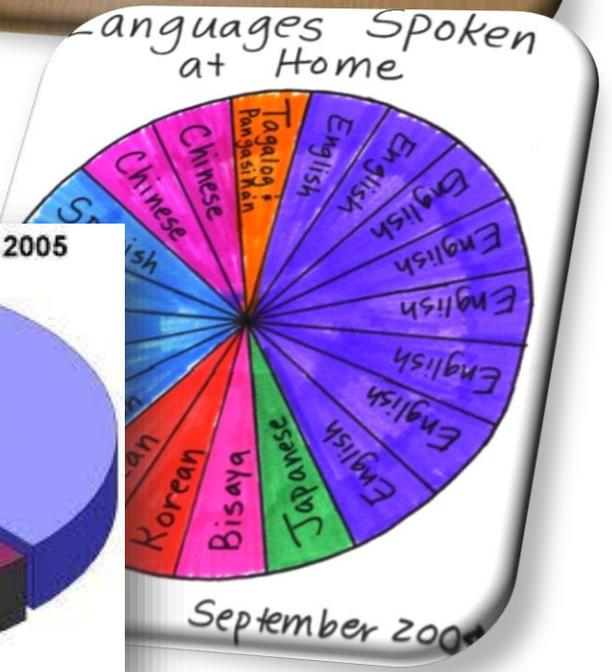
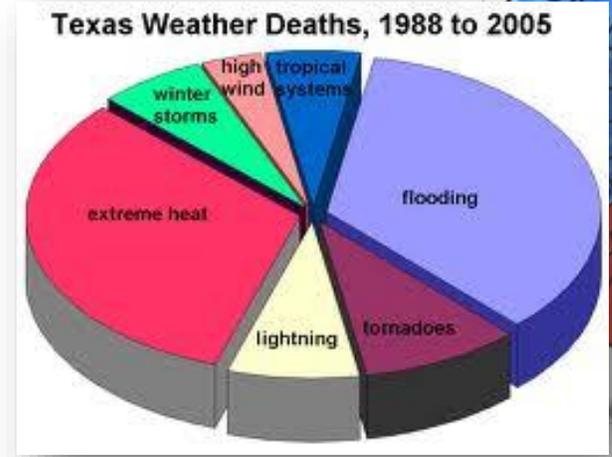
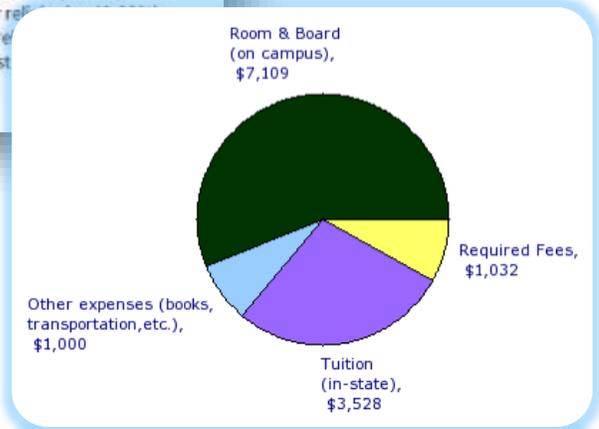
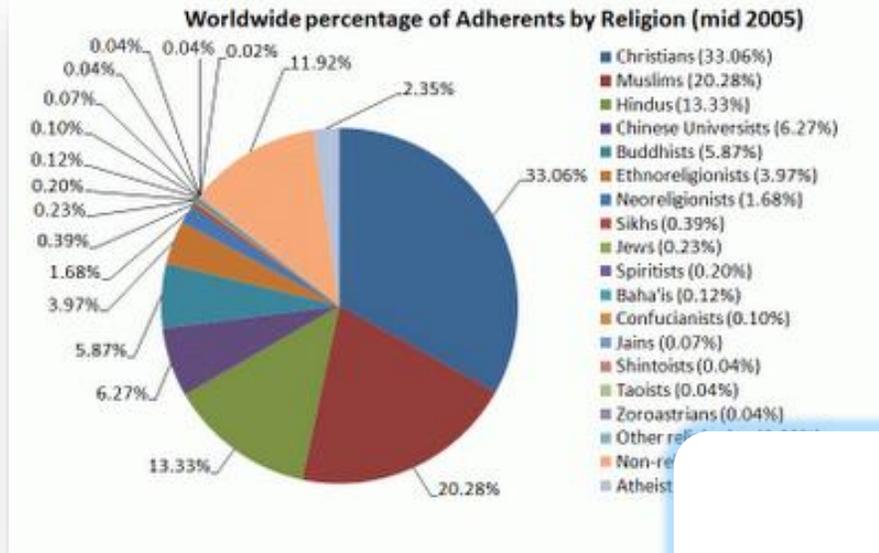
Line Graphs

- What do line graphs try to represent?
- Line graphs are:
 1. charts made of a series of points connected in a line.
 2. are often used to show how something has changed over time.

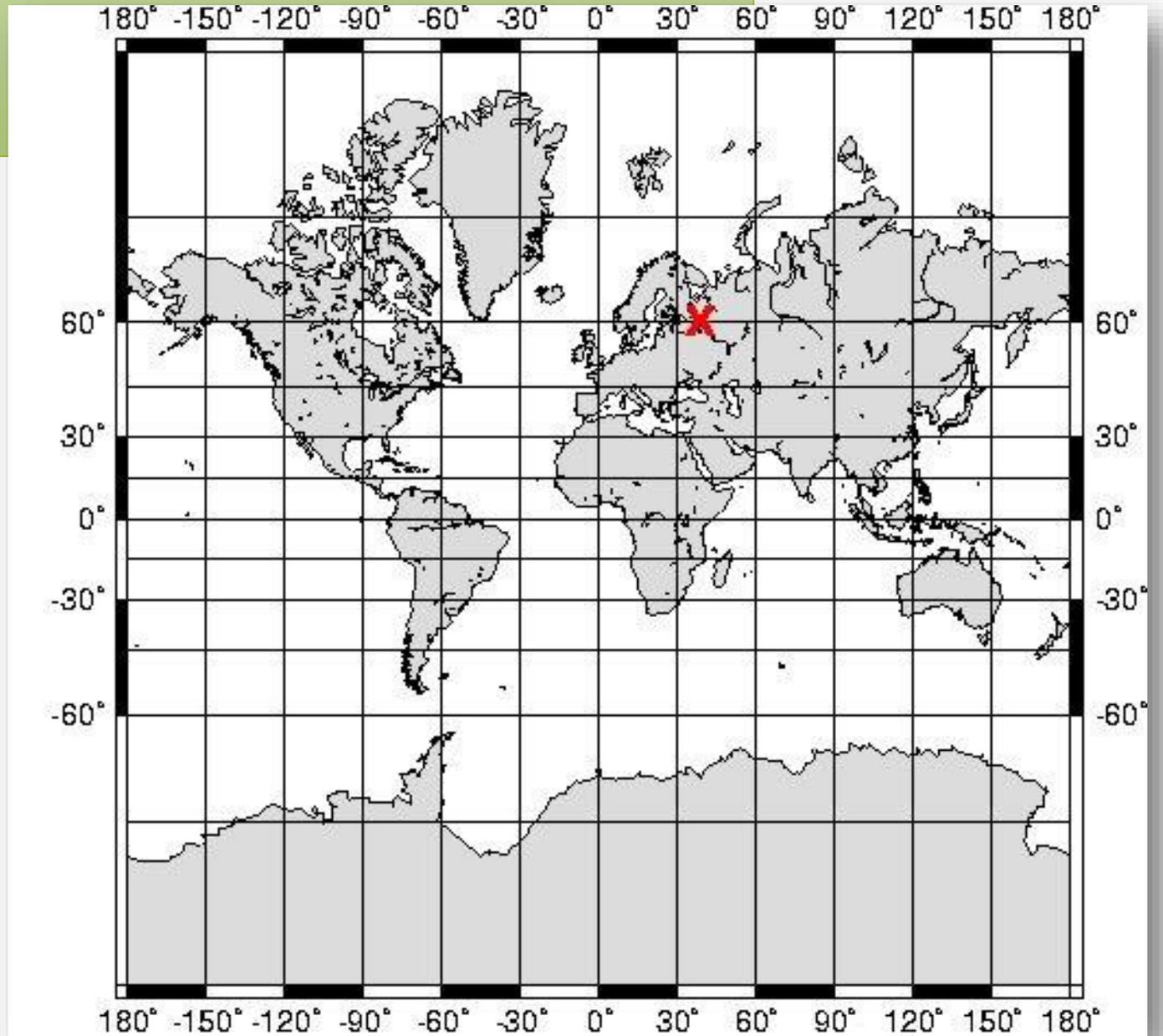


Circle or Pie Charts/Graphs

- What is a circle/pie chart graph?
- They are:
 1. A circle divided into different sizes
 2. They are used to show relationships between the whole and its part



Absolute Location



Relative Location

Texas



Physical v. Cultural Geography

Physical Geography	Cultural Geography
 Rocks/Minerals	 Population/Settlements/Urbanization
Landforms	Economic and Political Systems
Animal and Plant Life	Transportation
Soils	Human Migration
Atmosphere/Climate/Weather	Social Systems
Environment	Recreation
Rivers/Oceans/Other bodies of Water	Religion/Belief System

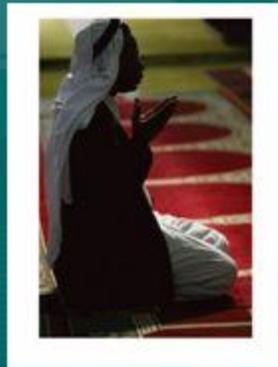


PLACE

What is it like there, what kind of place is it?

- **Human Characteristics**

- What are the main languages, customs, and beliefs.
- How many people live, work, and visit a place.



- **Physical Characteristics**

- Landforms (mountains, rivers, etc.), climate, vegetation, wildlife, soil, etc.



Place – describe Rio's physical and human characteristics

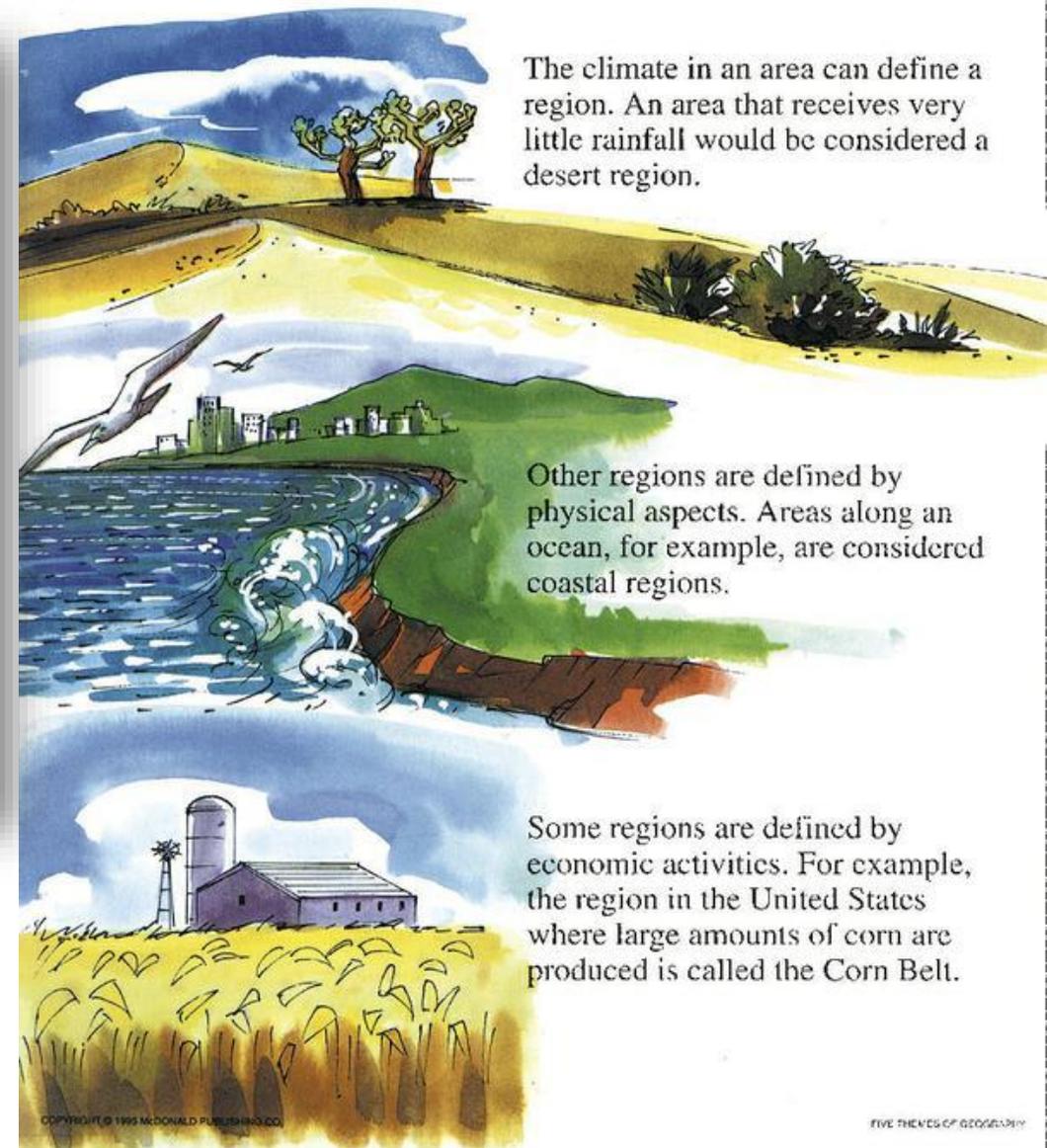


Region



Region

Areas of the world that have common characteristics are called **regions**.



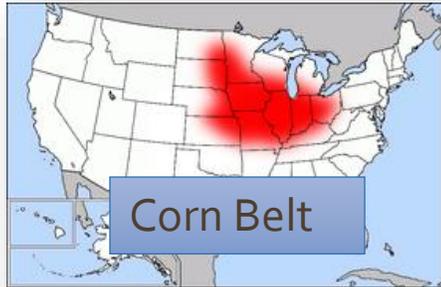
The climate in an area can define a region. An area that receives very little rainfall would be considered a desert region.

Other regions are defined by physical aspects. Areas along an ocean, for example, are considered coastal regions.

Some regions are defined by economic activities. For example, the region in the United States where large amounts of corn are produced is called the Corn Belt.

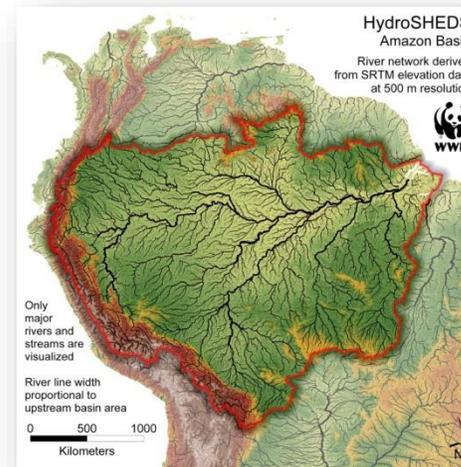


Types of Regions



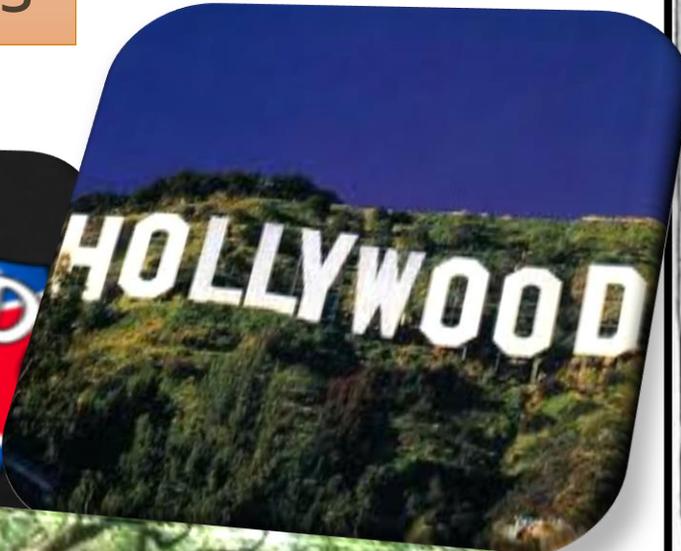
- **Formal Region:** Area that has at least one common human or physical characteristic. Such as: common type of government, or language

Functional Region: is an area defined by one function that may cross political boundaries. Often found around a central focal point such as a city.

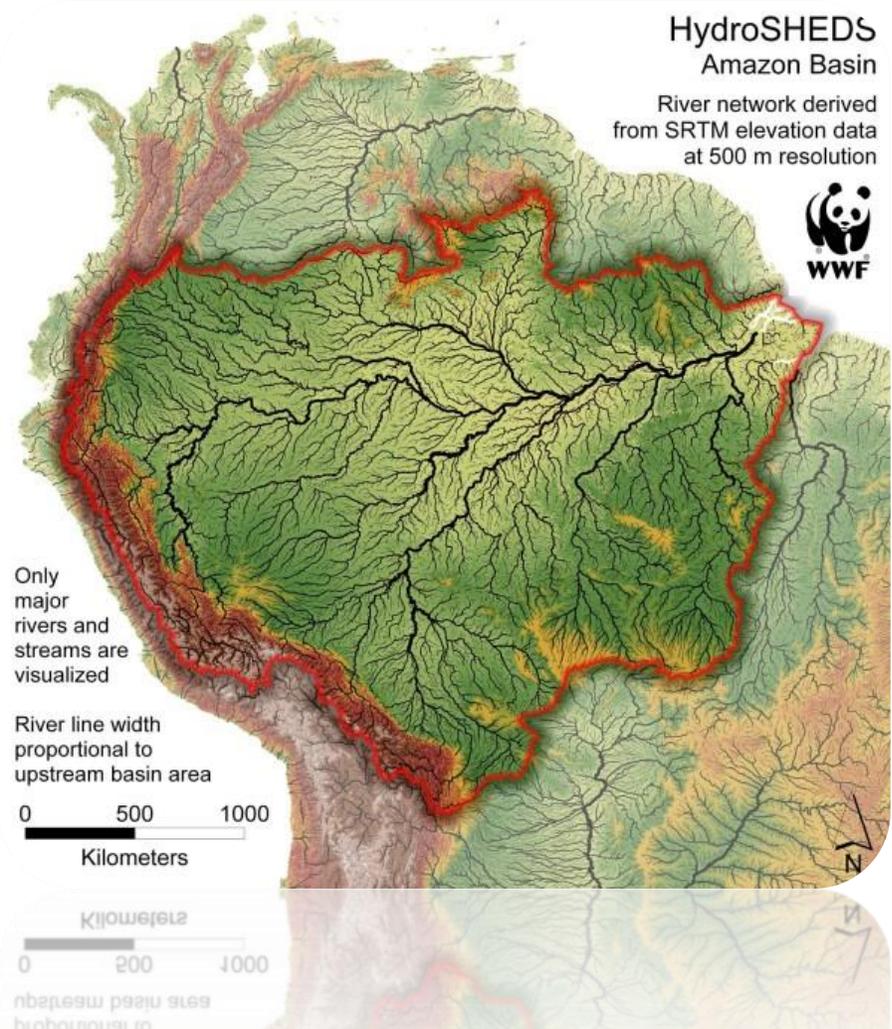
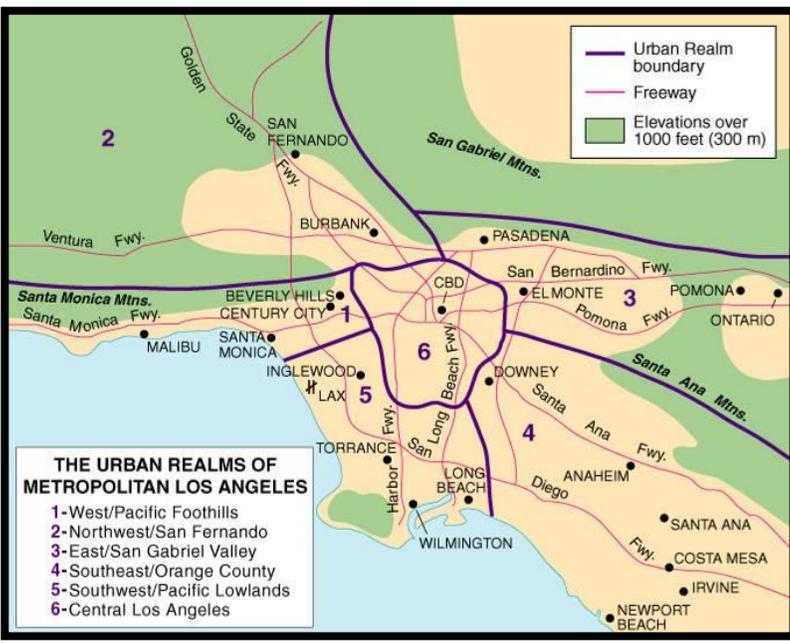
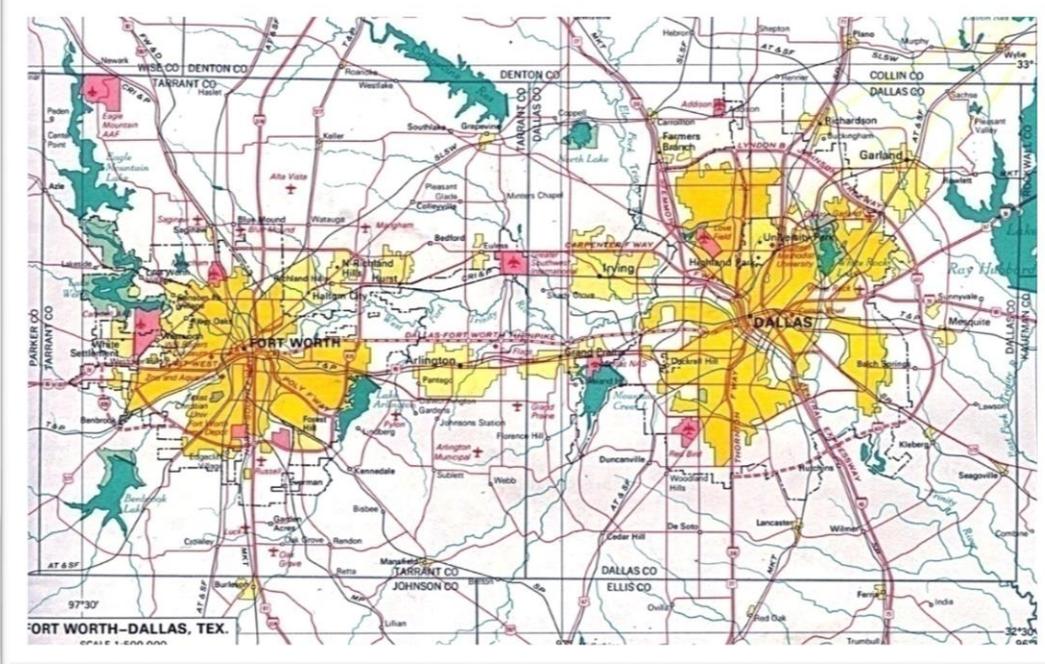


Perceptual region: is based on people's attitudes and emotions about a place. It may be based on actual facts or conditions
Examples of perceptual regions are: the Holy Land, the Big Apple, Dixie, the Midwest

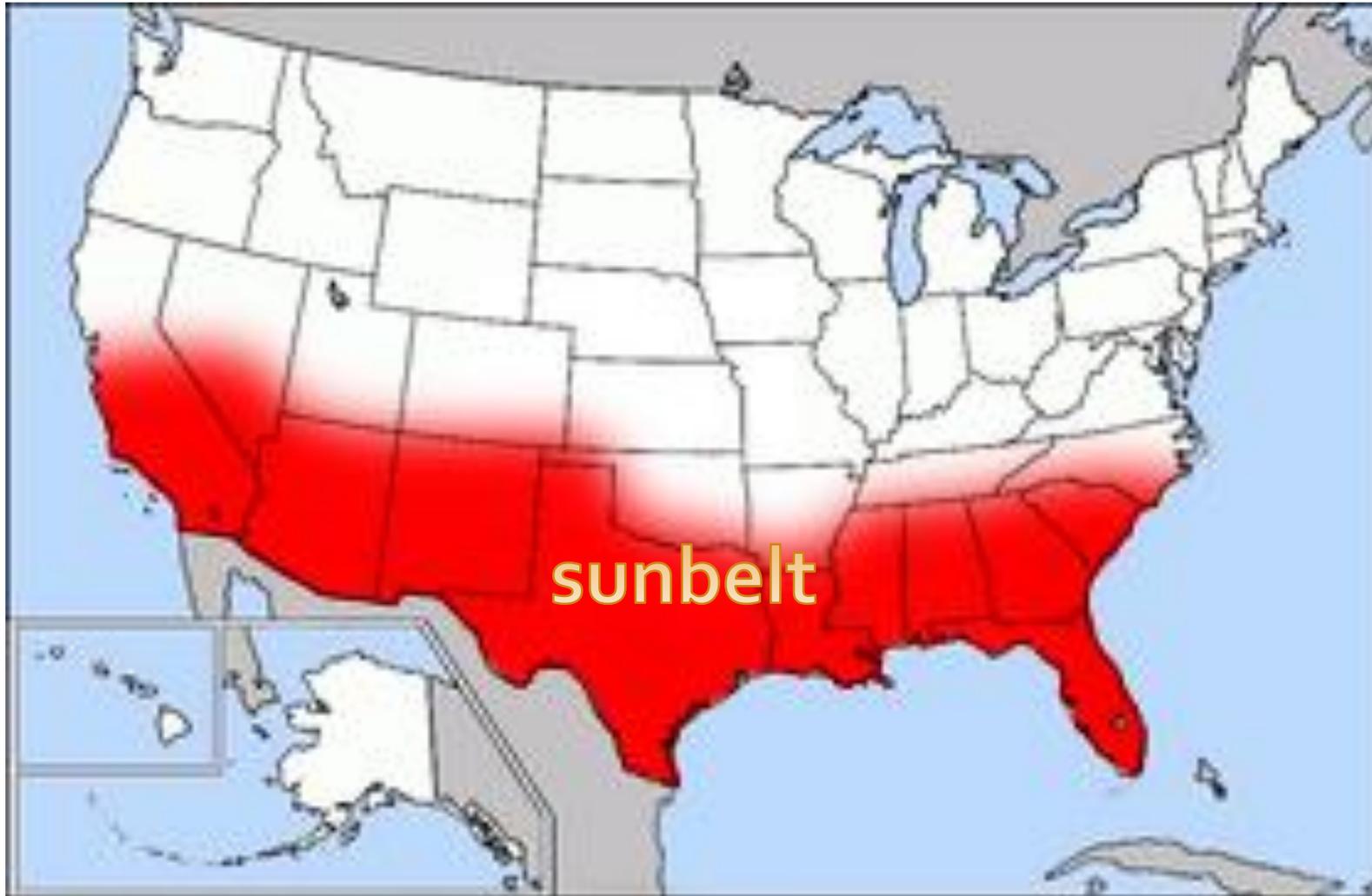
Perceptual Regions



Functional Regions



Formal Region

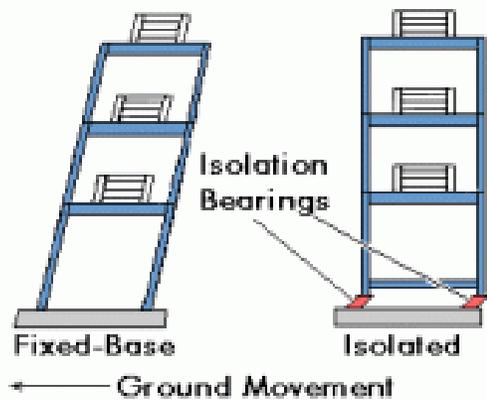




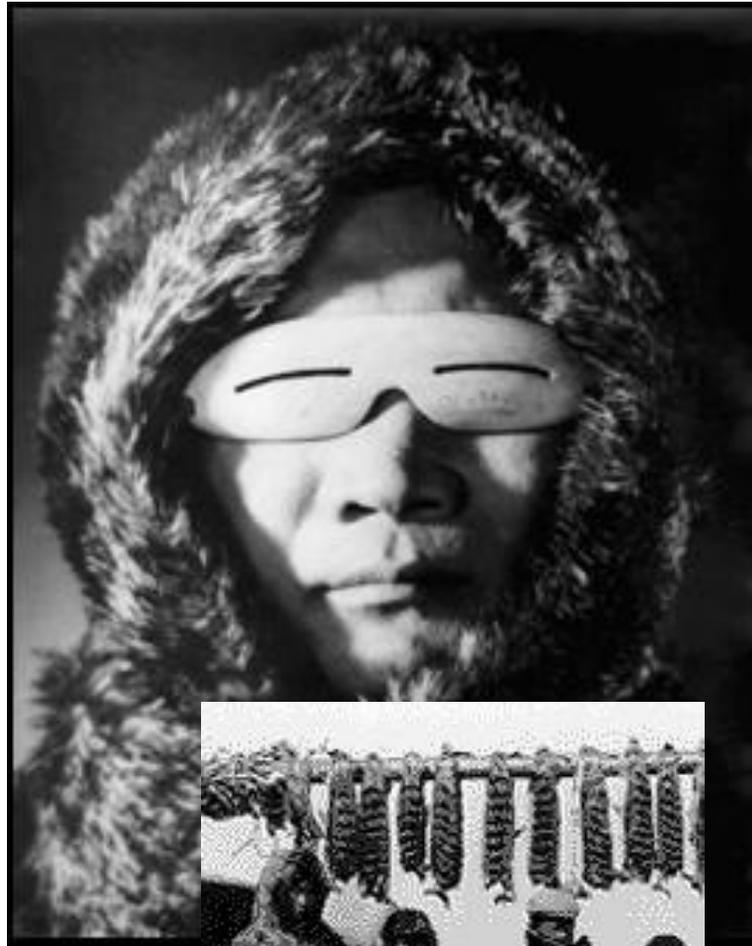
Grassland Peoples

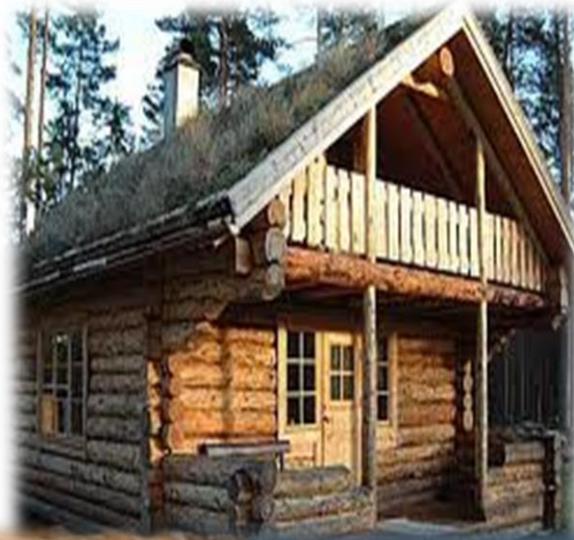


Japan



Human adapting to their environment







Integrated Solutions for GIS

Satellite & Aerial Imagery

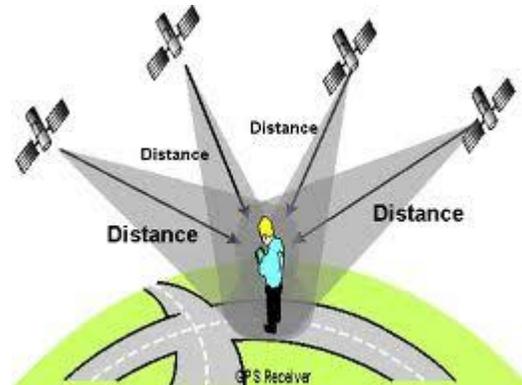
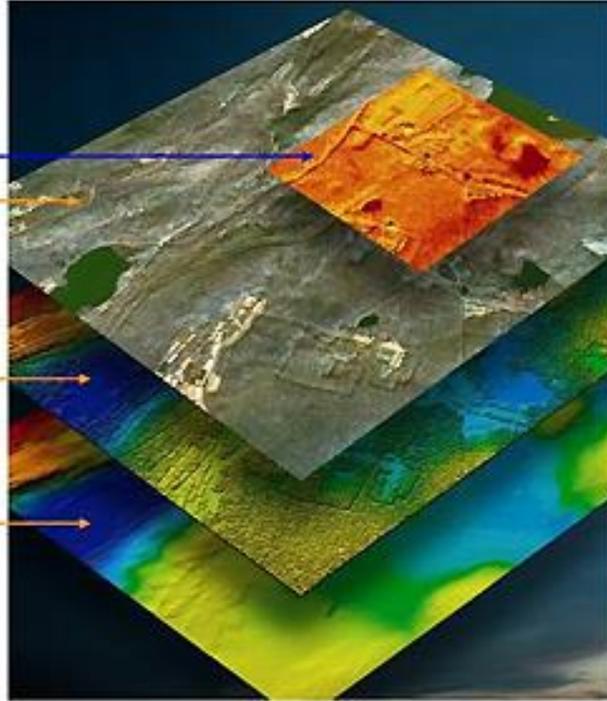
- 3D Terrain Modeling
- Stereo Imagery
- Multi & Hyper-Spectral
- Ortho-Imagery
- Film
- Digital (DSS or ADS)
- Thermal

Digital Surface Model

GIS Implementation

Derived Products

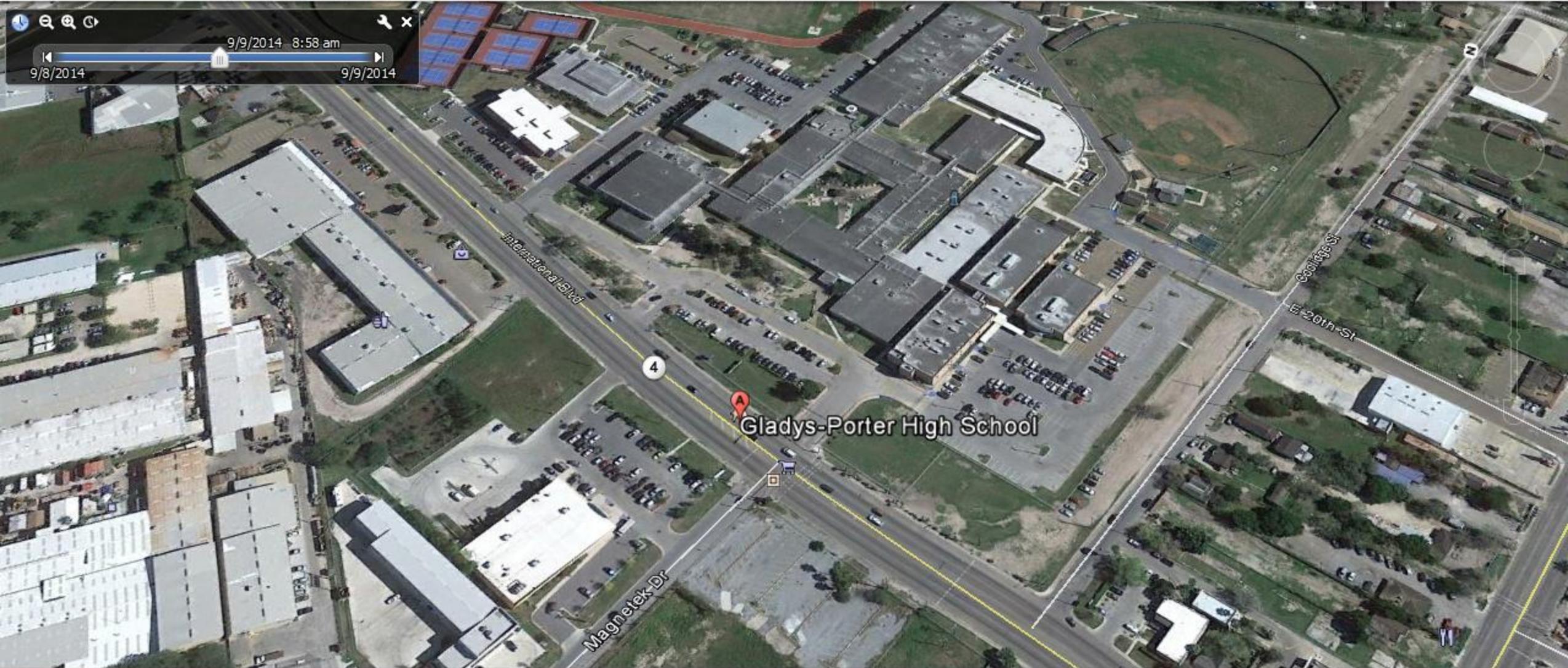
Bare Earth DEM/DTM





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9/8/2014 9/9/2014



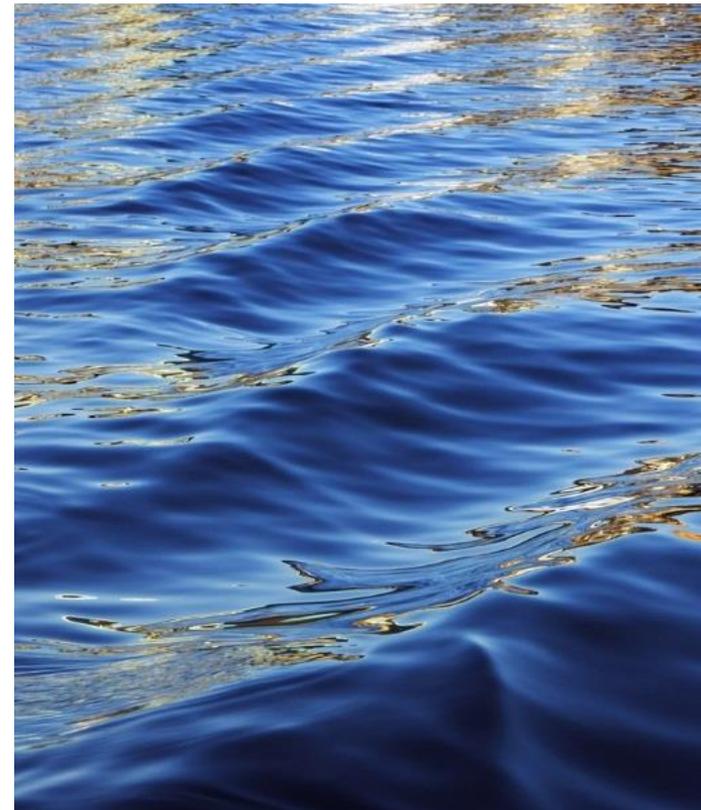
Tour Guide



Regions

- The United States and Canada
 - Southwest Asia
 - Latin America
 - South Asia
- Europe • East Asia
- Russia and the Republics
- Southeast Asia, Oceania,
- Africa and Antarctica

5 Themes of Geography



Geography

Geographers, view the world by looking at the use of space on the earth and the interactions that take place there. They look for _____ and _____ between people and the land that they live on.

_____, then, is the study of the distribution and interaction of _____ and _____ features on the earth.

- Geography Tools

- Maps

- _____ to gain visual evidence about a place.

- _____

- 5 Themes of Geography

The Five Themes

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Location - _____?

2 types of Location

- _____ is the _____ place on earth where a geographic feature, such as a city, is found.
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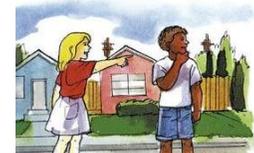
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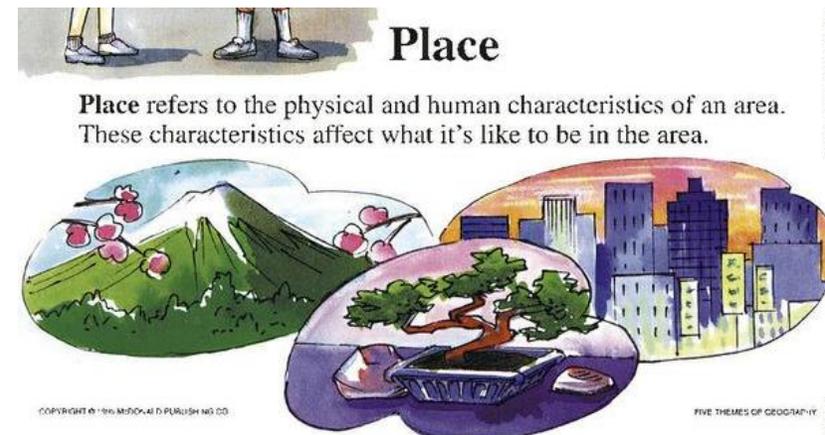
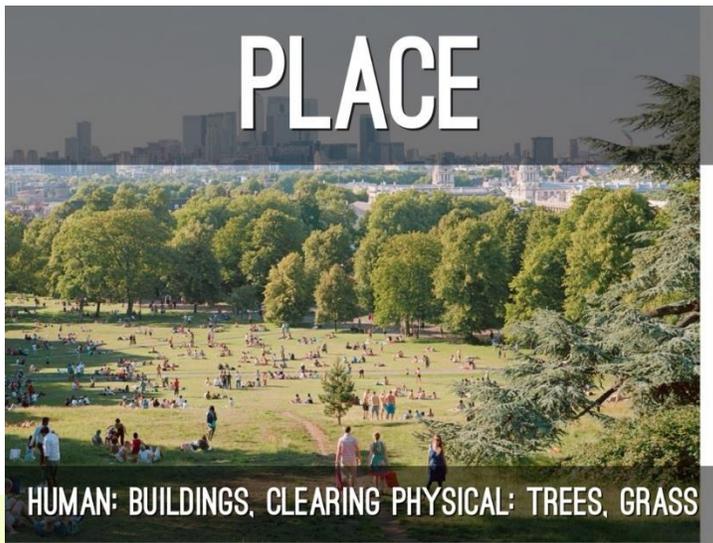


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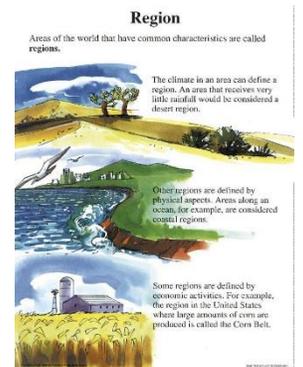
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Physical Geography	Cultural or Human Geography