

# THE 5 THEMES OF GEOGRAPHY



# THE FIVE THEMES OF GEOGRAPHY

- Location
- Place
- Human-Environment Interaction
- Movement
- Regions

# LOCATION

## Where are we?

- **Absolute Location**

- A latitude and longitude (global location) or a street address (local location).

- Paris France is 48° North Latitude and 2° East Longitude.
- The White House is located at 1600 Pennsylvania Ave.

- **Relative Location**

- Described by landmarks, time, direction or distance. From one place to another.
- Go 1 mile west on main street and turn left for 1 block.



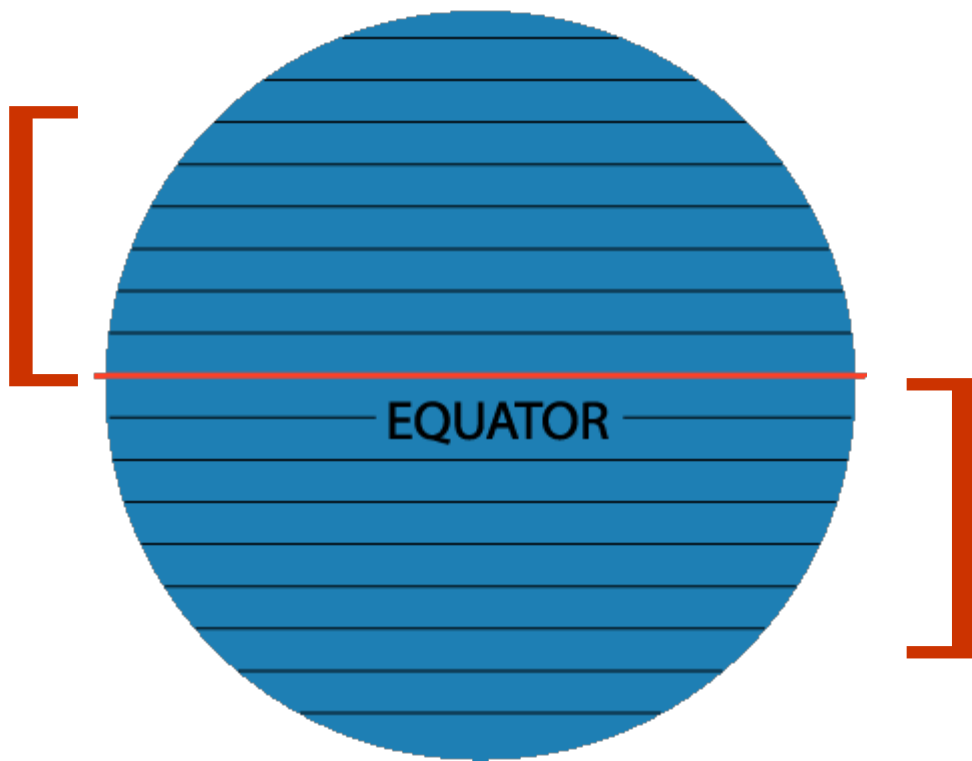
Latitude lines run east/west but they measure **north or south of the equator ( $0^\circ$ )** splitting the earth into the Northern Hemisphere and Southern Hemisphere.



# Latitude

North Pole

Lines of latitude are numbered from  $0^\circ$  at the equator to  $90^\circ$  N.L. at the North Pole.



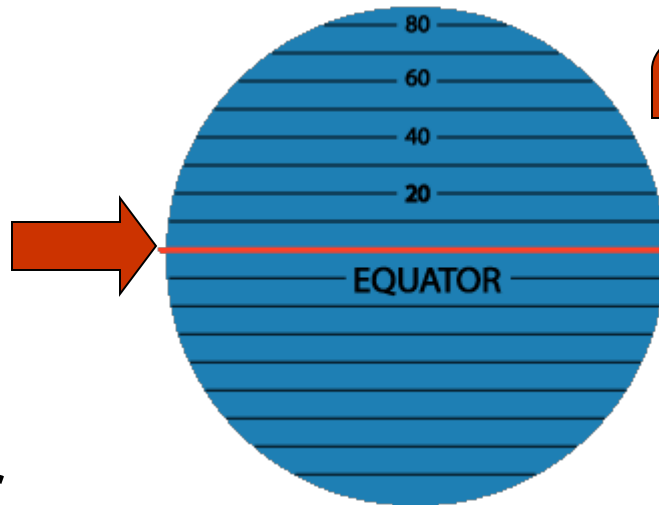
Lines of latitude are numbered from  $0^\circ$  at the equator to  $90^\circ$  S.L. at the South Pole.

South Pole

# Latitude

The North Pole  
is at  $90^{\circ}$  N

The equator  
is at  $0^{\circ}$   
latitude. It  
is neither  
north nor  
south. It is  
at the center  
between  
north and  
south.



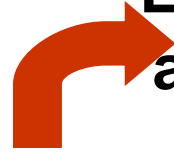
$40^{\circ}$  N is the  $40^{\circ}$   
line of latitude  
north of the  
equator.

The South Pole  
is at  $90^{\circ}$  S

$40^{\circ}$  S is the  $40^{\circ}$   
line of latitude  
south of the  
equator.

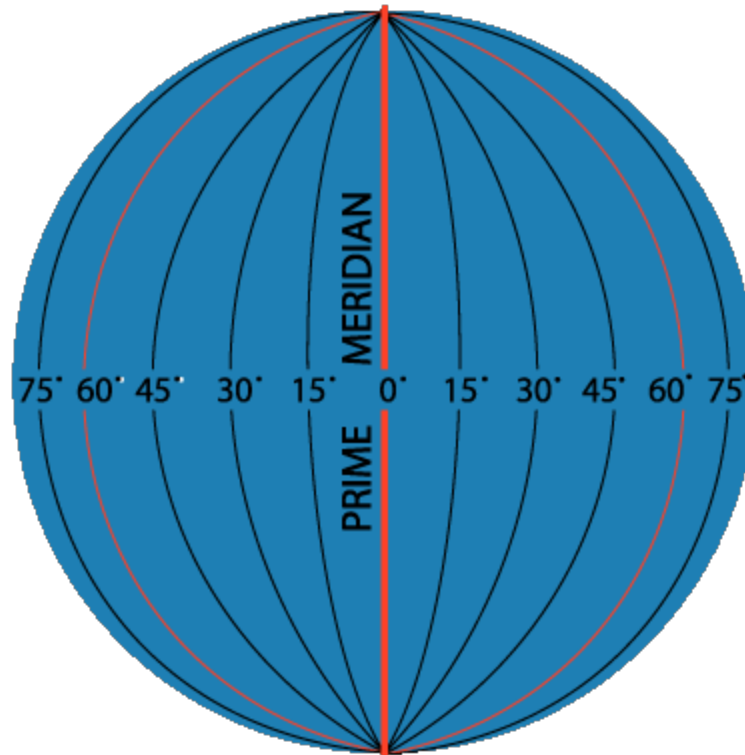
# Longitude

Lines of longitude begin at the Prime Meridian.



60° W is the 60° line of longitude west of the Prime Meridian.

W

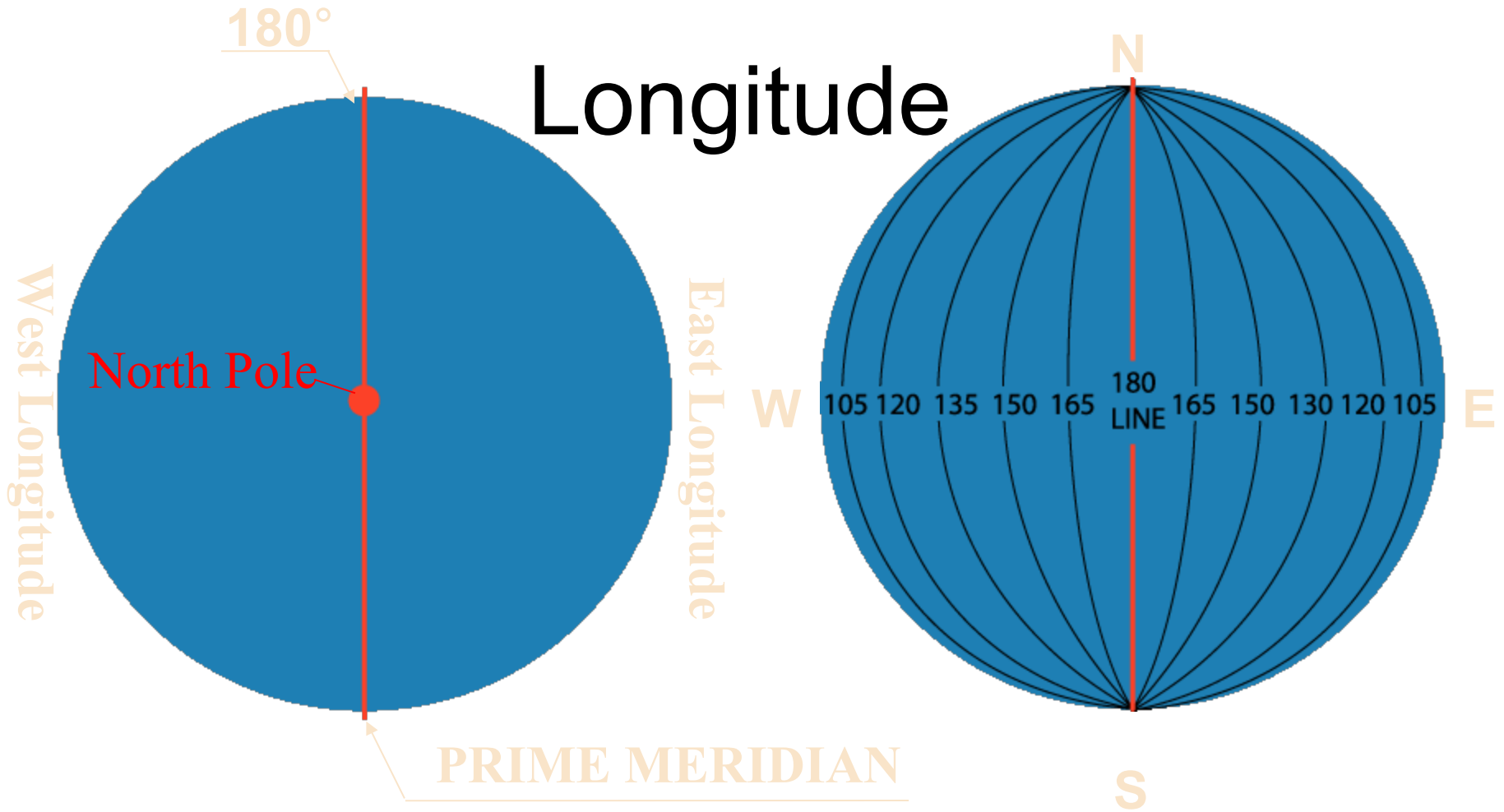


E

60° E is the 60° line of longitude east of the Prime Meridian.

The Prime Meridian is located at 0°. It is neither east or west

# Longitude



Lines of longitude are numbered east from the Prime Meridian to the 180° line and west from the Prime Meridian to the 180° line.





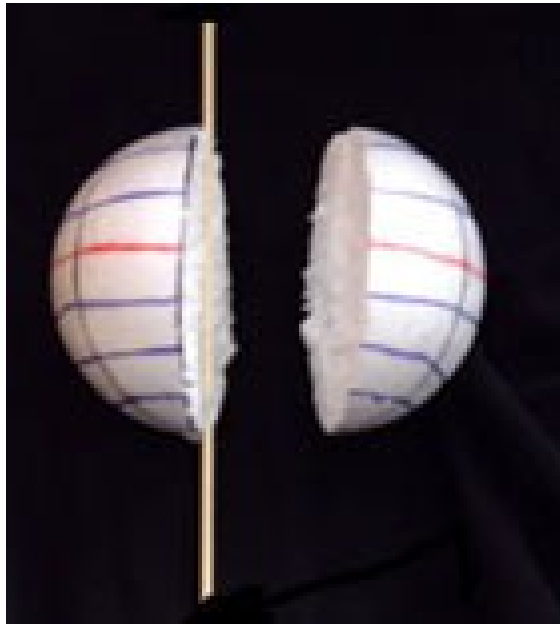
Lines of  
longitude only

Equator added



Other lines of  
latitude added





Cross-section  
through line of  
longitude



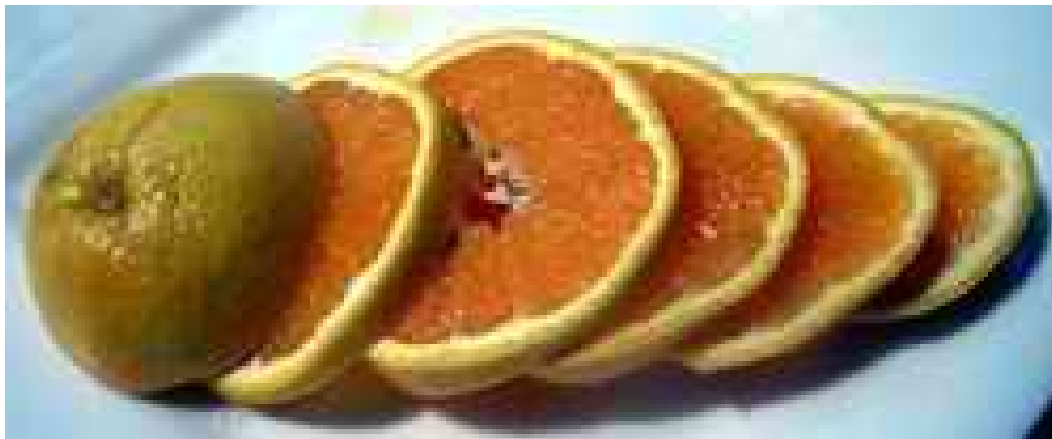
Cross-  
sections  
through  
lines of  
latitude



Orange cut through lines of longitude

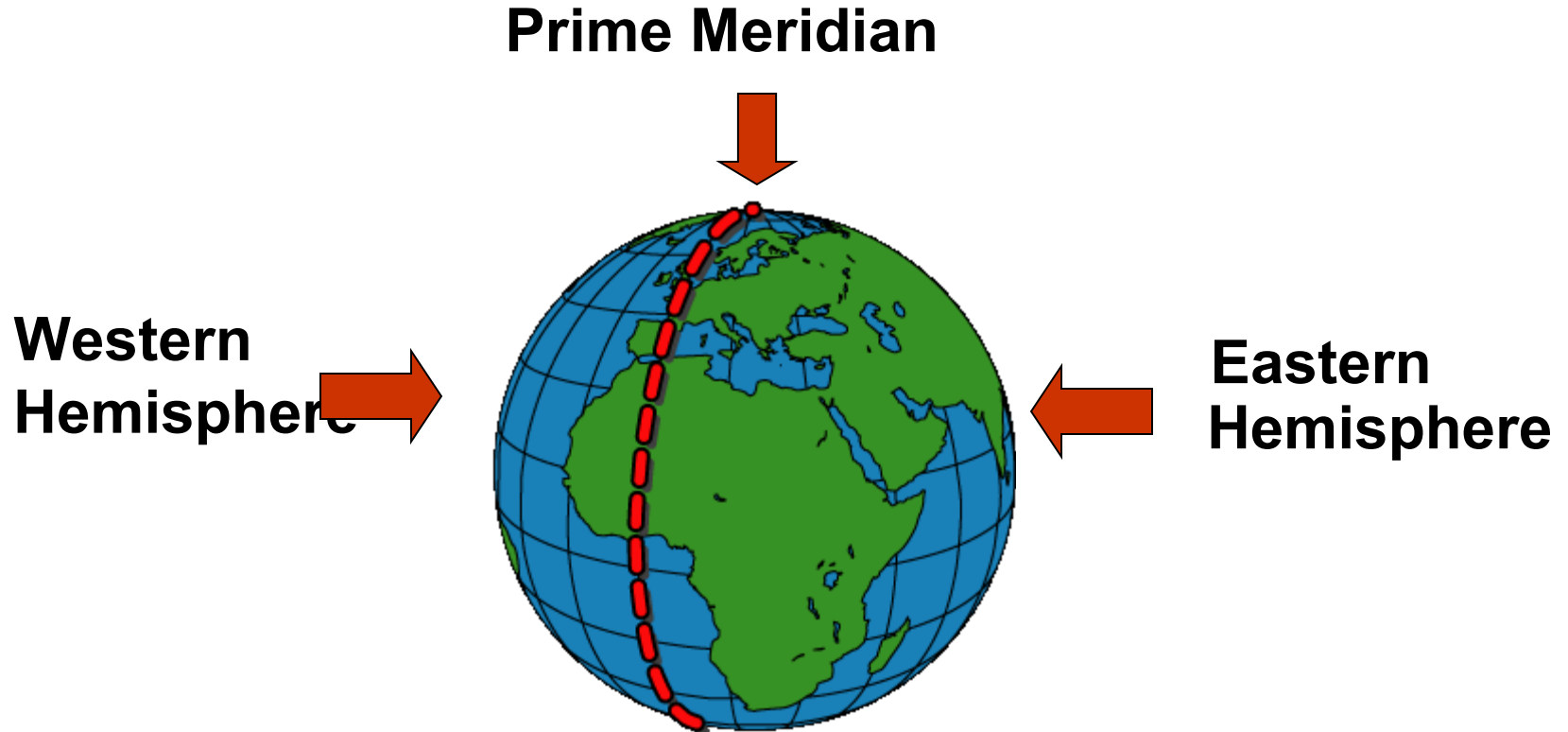


Orange cut through lines of latitude



# Prime Meridian

The Prime Meridian ( $0^\circ$ ) and the  $180^\circ$  line split the earth into the Western Hemisphere and Eastern Hemisphere.



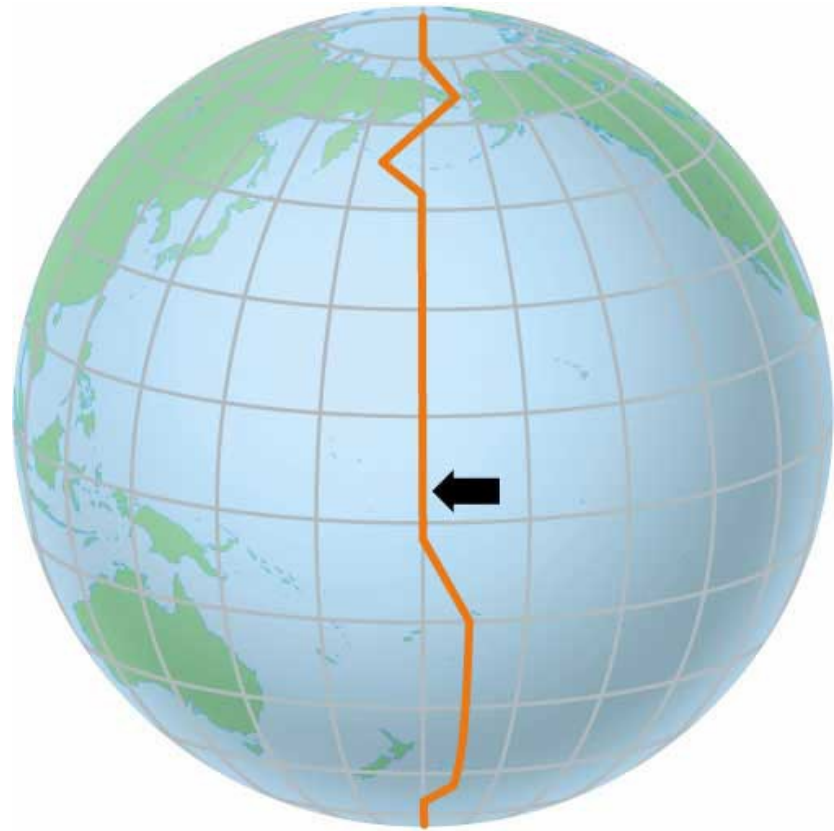
Places located east of the Prime Meridian have an east longitude (E) address. Places located west of the Prime Meridian have a west longitude (W) address.

# INTERNATIONAL DATE LINE

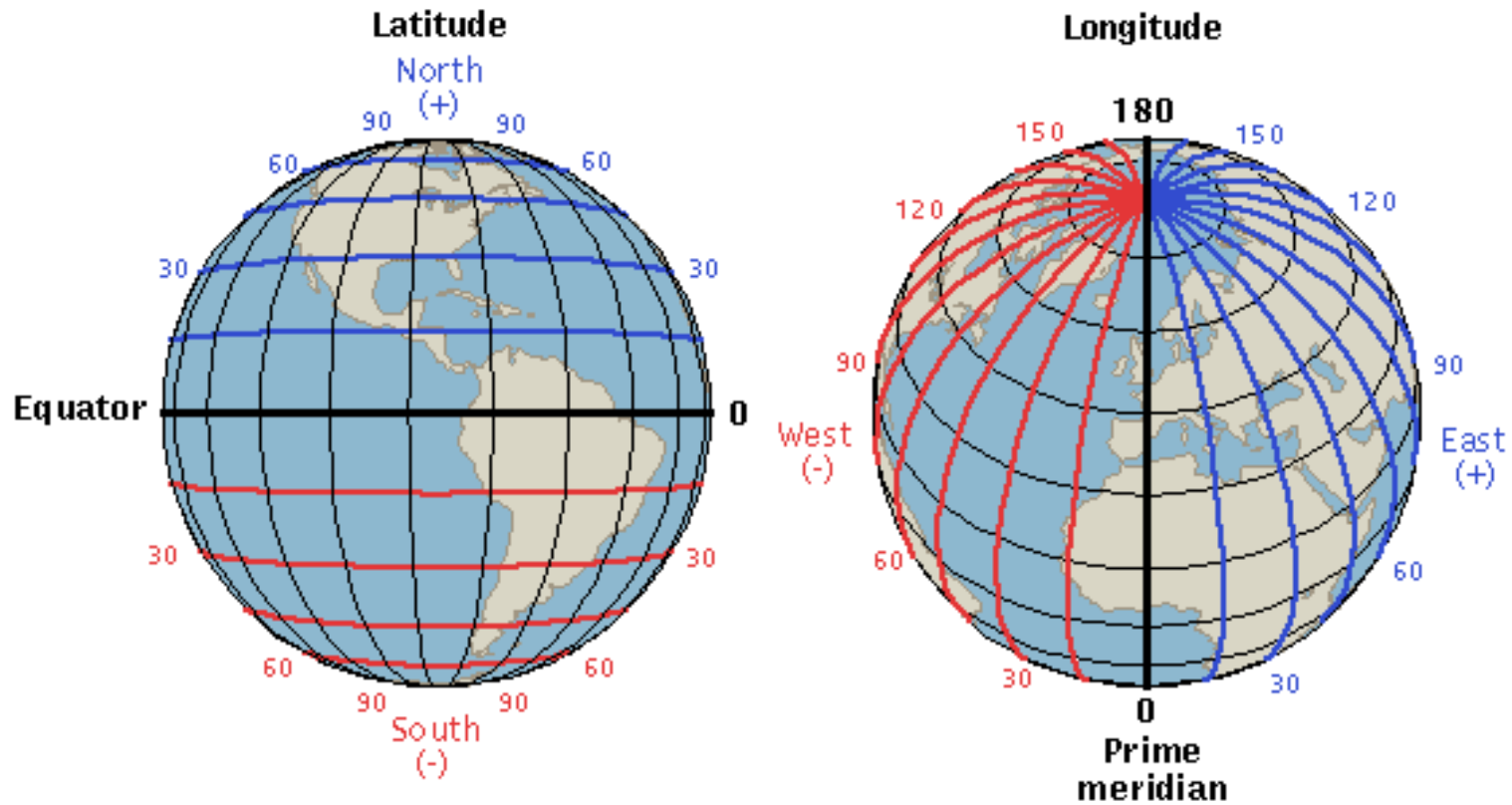
## 180°

- SEPARATES 2 CALENDAR DAYS.

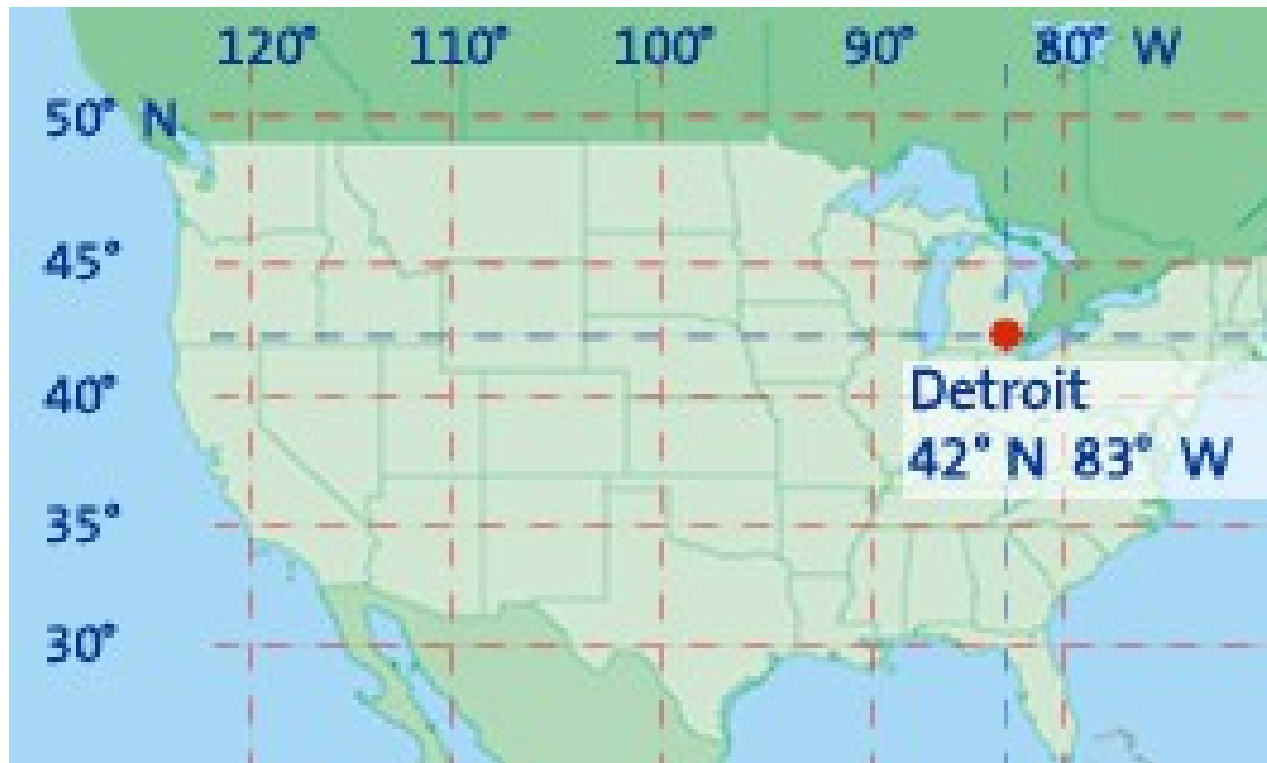
**America to Asia – gain a day**  
**Asia to America – lose a day**



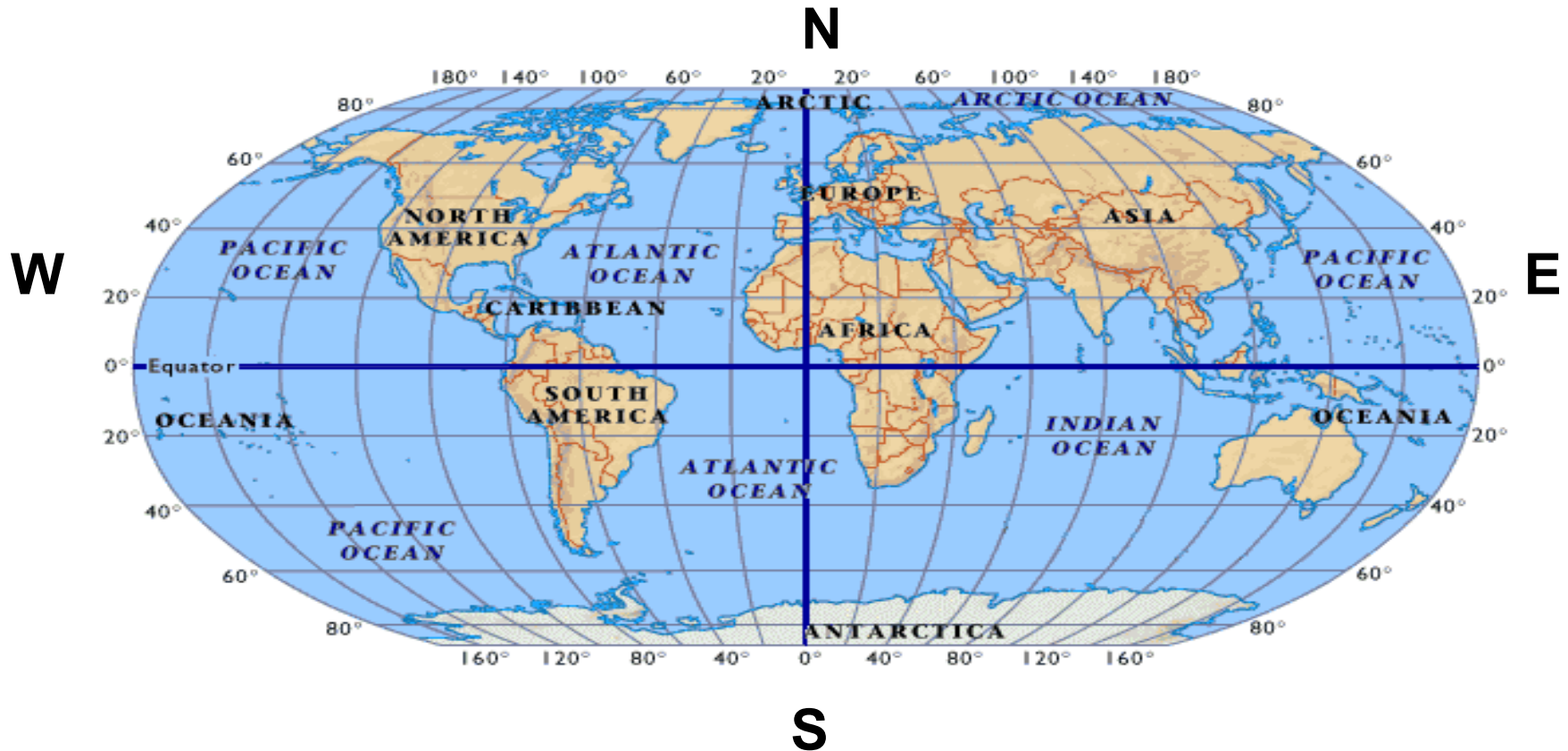
# By combining latitude and longitude, any location can be pinpointed



A location's coordinates  
( \_\_\_\_\_ ° N or S, \_\_\_\_\_ ° E or W)



# Application

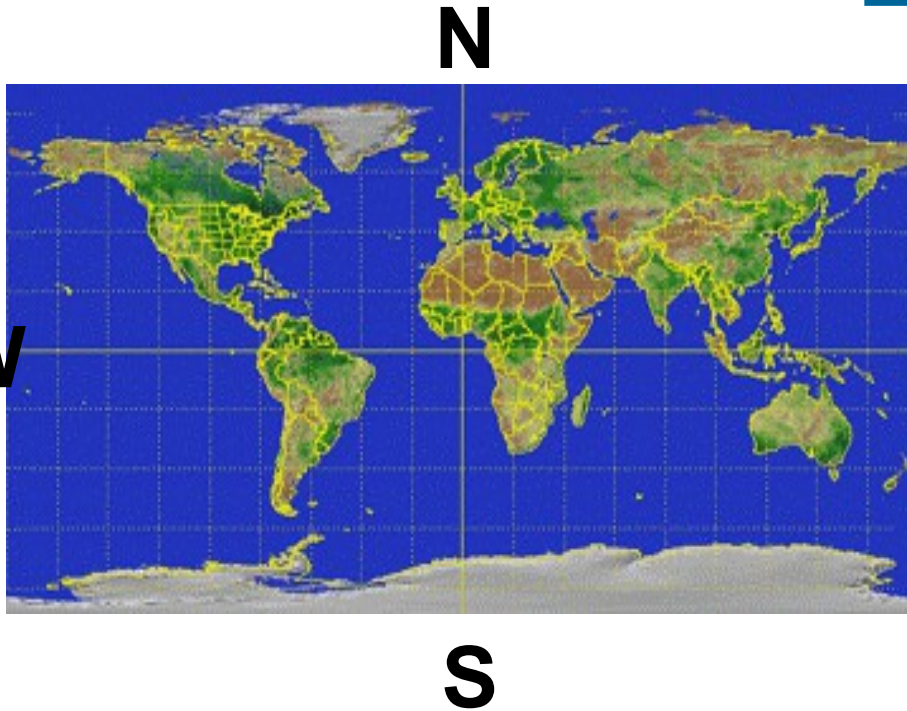


North America is in the Northern Hemisphere because it is north of the Equator. North America is in the Western Hemisphere because it is west of the Prime Meridian.

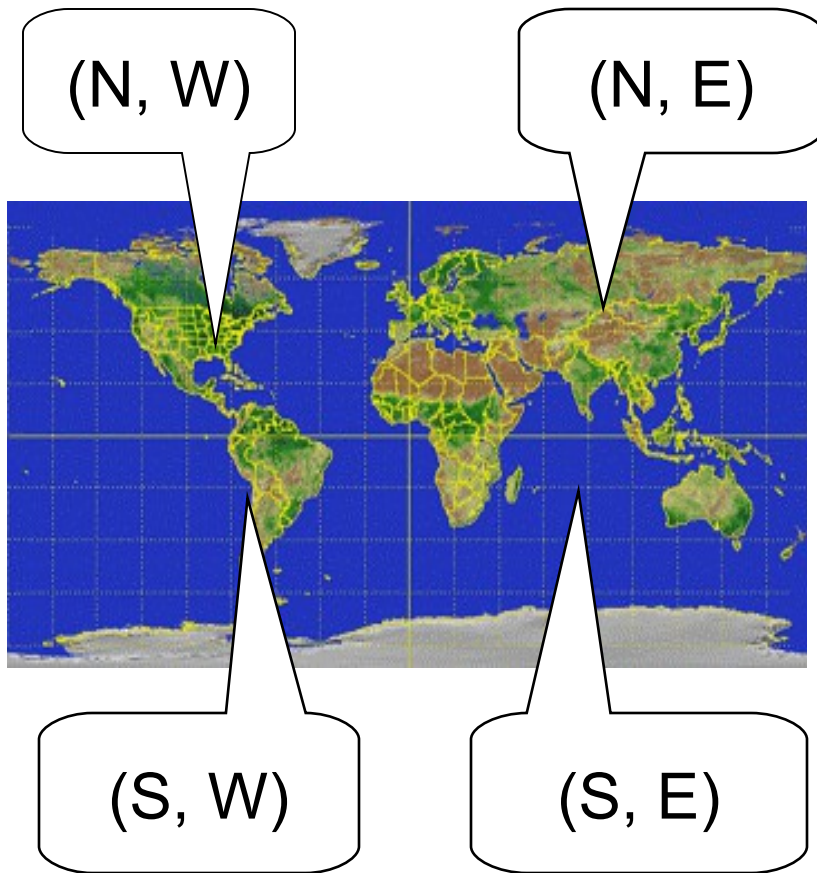


# East West, North South on the Earth

• Let each of the four quarters then be designated by North or South and East or West.



# East West, North South on the Earth



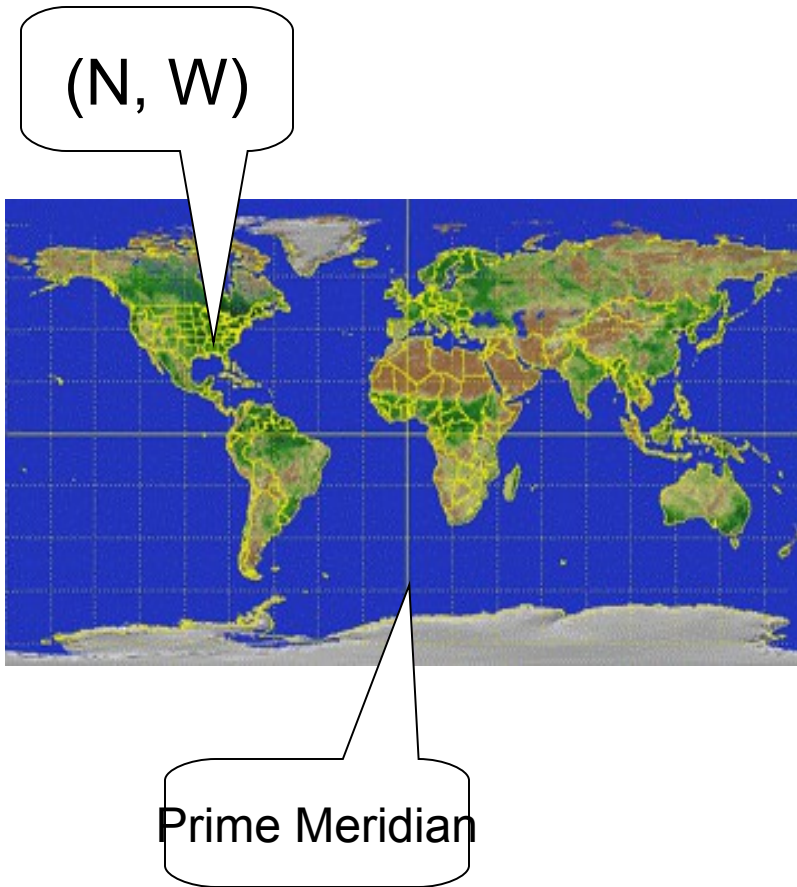
The N tells us we're north of the Equator. The S tells us we're south of the Equator.

- The E tells us that we're east of the Prime Meridian. The W tells us that we're west of the Prime Meridian.

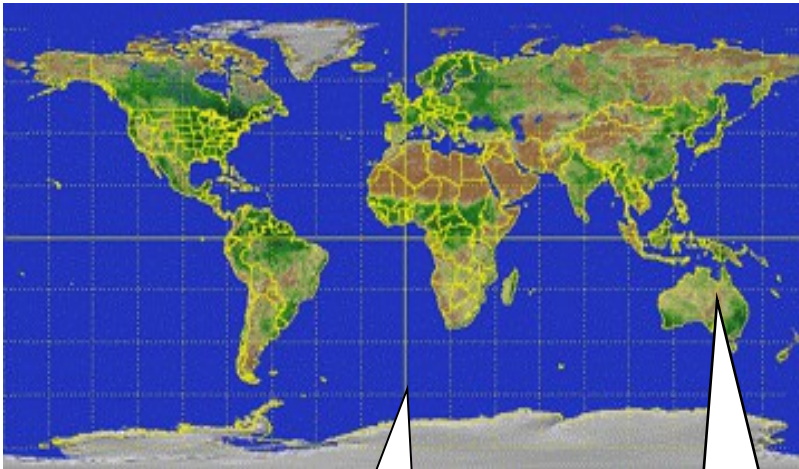
# East West, North South on the Earth

- That means all points in North

America will have a North latitude and a West longitude because it is North of the Equator and West of the Prime Meridian.



# East West, North South on the Earth



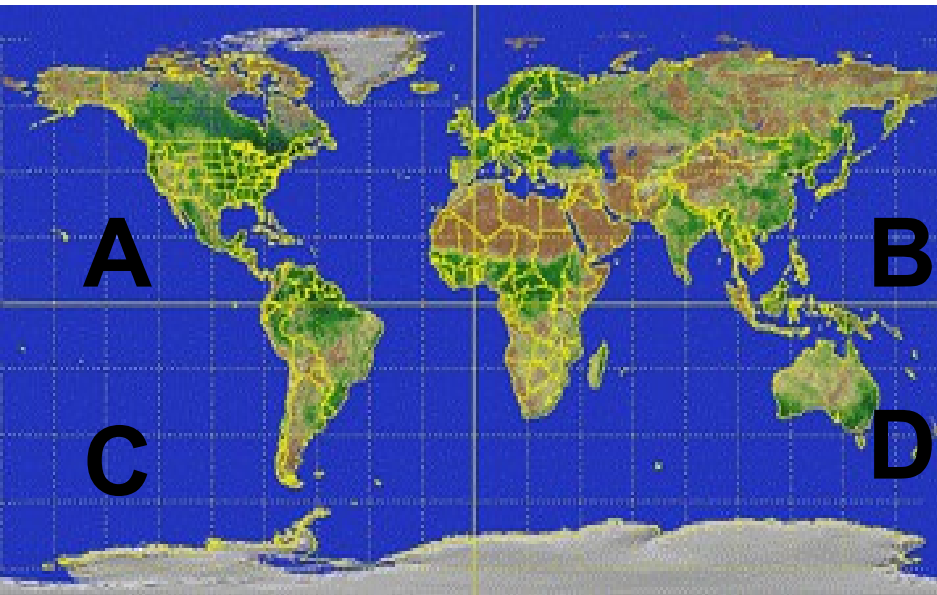
Prime Meridian

?

- What would be the latitude and longitude directions in Australia?

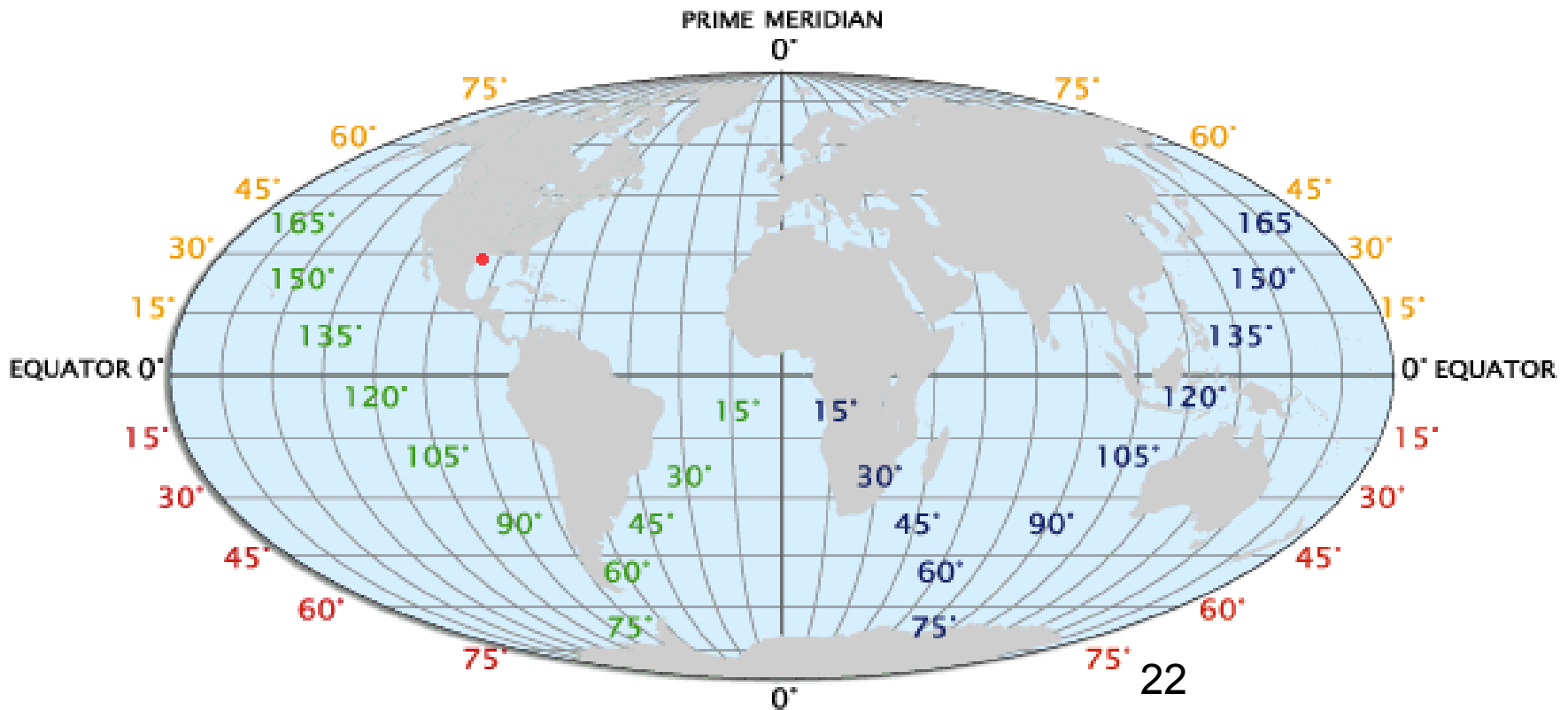
**If you said South and East , you're right!**

# See If You Can Tell In Which Quarter These Lon/Lats Are Located



- 1.  $41^{\circ}\text{N}$ ,  $21^{\circ}\text{E}$
- 2.  $37^{\circ}\text{N}$ ,  $76^{\circ}\text{W}$
- 3.  $72^{\circ}\text{S}$ ,  $141^{\circ}\text{W}$
- 4.  $7^{\circ}\text{S}$ ,  $23^{\circ}\text{W}$
- 5.  $15^{\circ}\text{N}$ ,  $29^{\circ}\text{E}$
- 6.  $34^{\circ}\text{S}$ ,  $151^{\circ}\text{E}$

# Now you're ready to find some locations on a map!

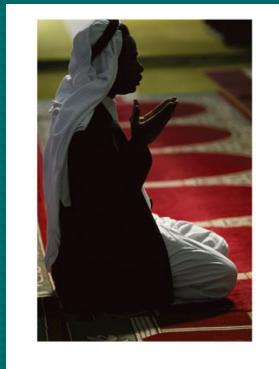


# PLACE

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

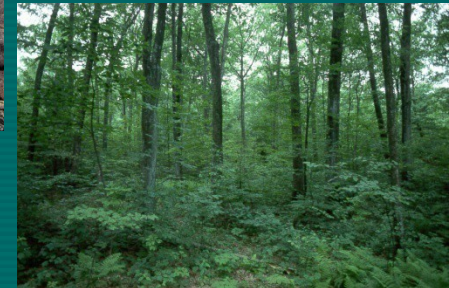
- **Human Characteristics**

- 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.



# Plains

- ◆ Plains are flat lands that have only small changes in elevation.

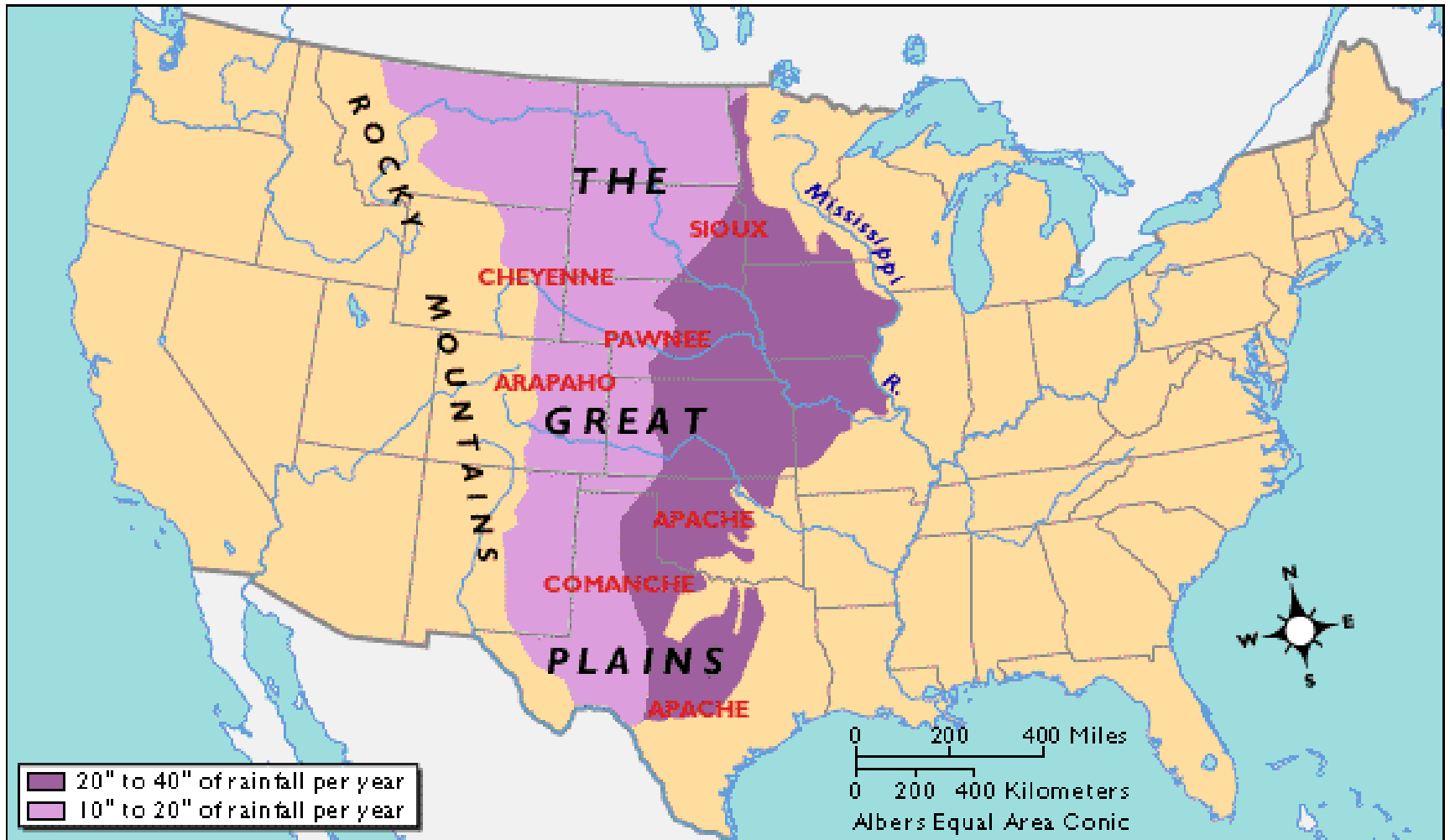




# Great Plains

- A largely treeless flat area that extends from Canada down to Mexico. The soil is very fertile and good for farming but the climate can be harsh with cold winters and hot summers. This area also gets many tornadoes.

# The Great Plains



# The Great Plains

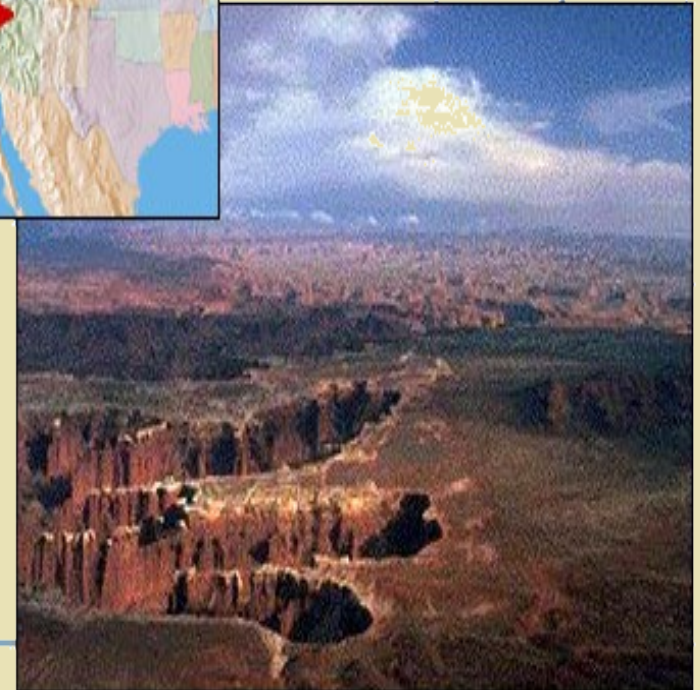


# Plateau

- ◆ A plateau is a large, flat area of land that is higher than the surrounding land



The Grand Canyon,  
United States



# Cliff

- ◆ A cliff is a steep face of rock and soil.

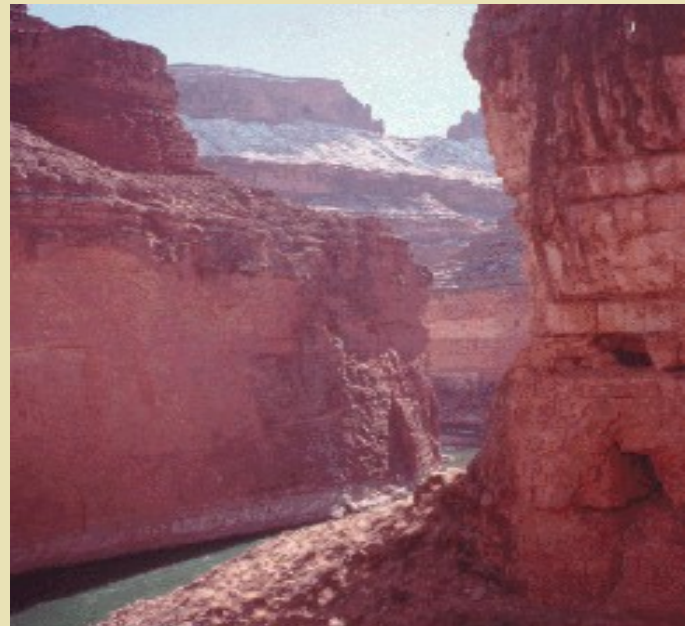


Island of Thera,  
Greece



# Canyon

- ◆ A canyon is a deep valley with very steep sides - often carved from the Earth by a river.



# Grand Canyon

- The Grand Canyon was formed by water erosion from the Colorado River. The canyon is 277 miles long and ranges in width from 4 to 18 miles. Most of the canyon is in Grand Canyon National Park in Arizona.
- See the [Grand Canyon skywalk at youtube!](#)





# Glacier

- ◆ A glacier is a slowly moving river of ice.



# Mountain

- ◆ A mountain is a very tall high, natural place on Earth - higher than a hill. The tallest mountain on Earth is Mt. Everest.

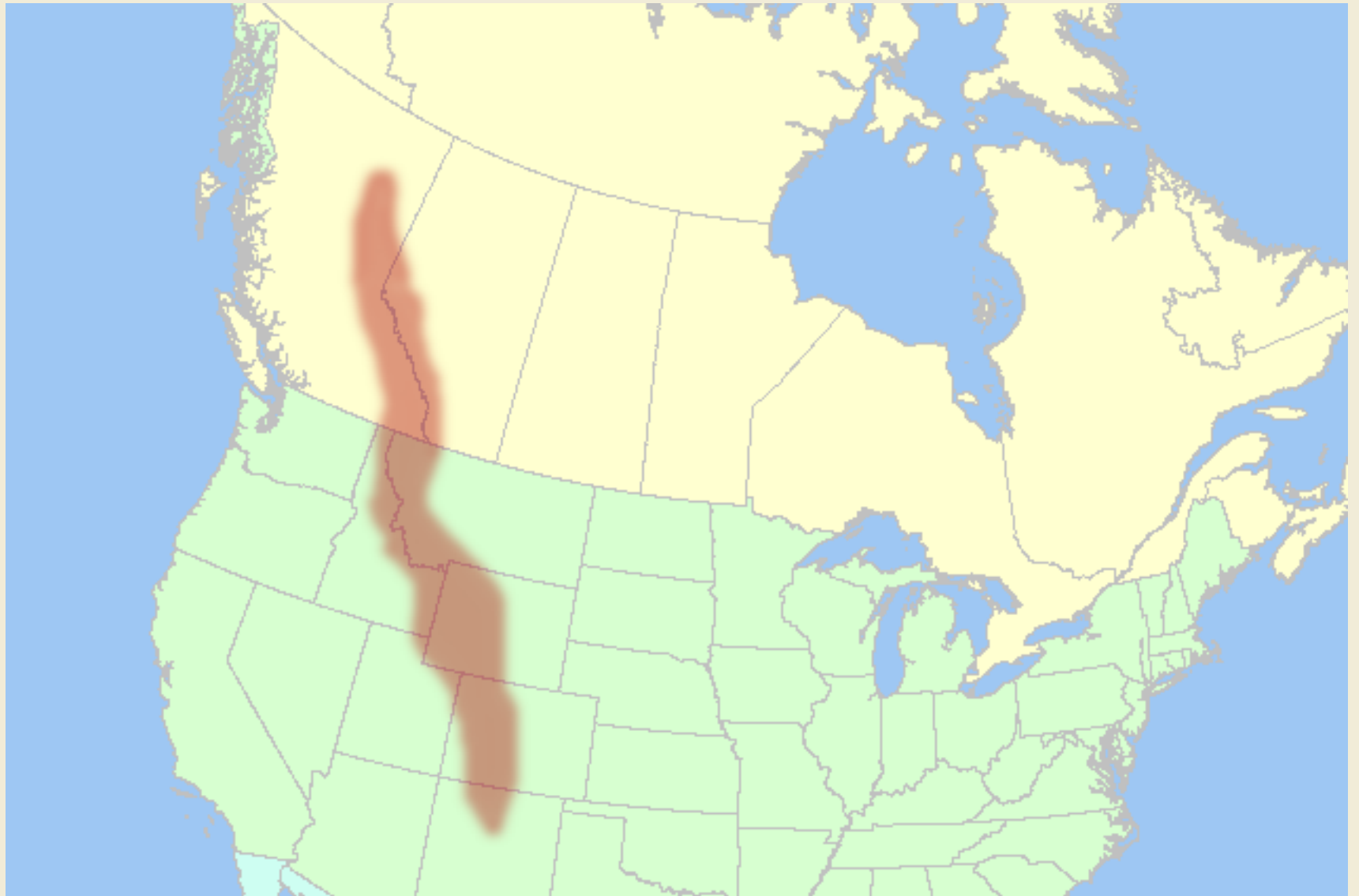


# The Rocky Mountains

- The Rocky Mountains extend about 3,000 miles from Alaska south to New Mexico. They are younger and taller than the Appalachian Mountains. The Continental Divide is the line of highest points in the Rockies that marks the separation of rivers flowing eastward and westward.

# The Rocky Mountains

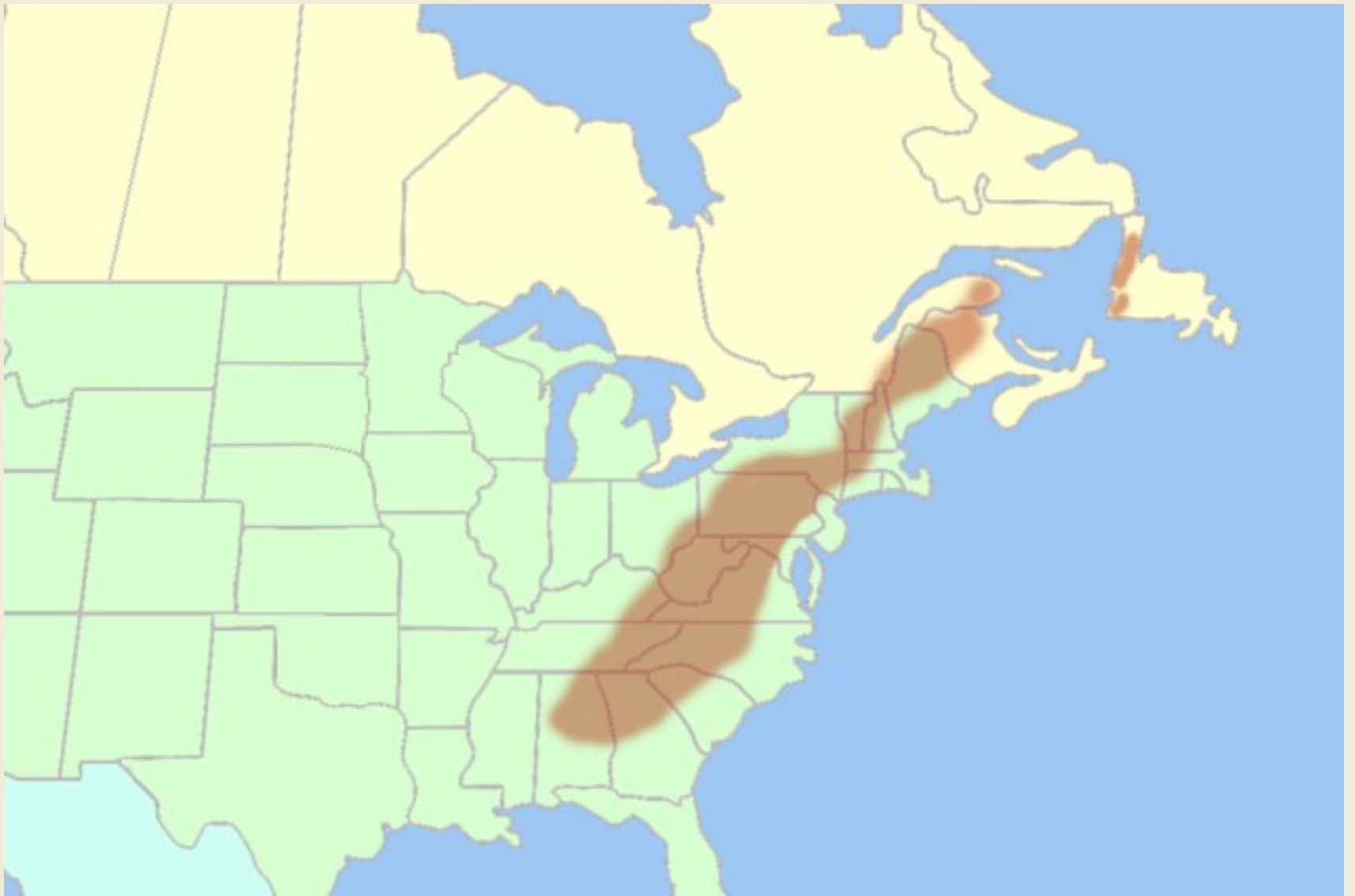




# The Appalachian Mountains

- The Appalachian Mountains extend about 1,600 miles north to south from Newfoundland in Canada to Alabama.







# Mesa

- ◆ A mesa is a land formation with a flat area on top and steep walls - usually occurring in dry areas



Mitchell Mesa,  
United States



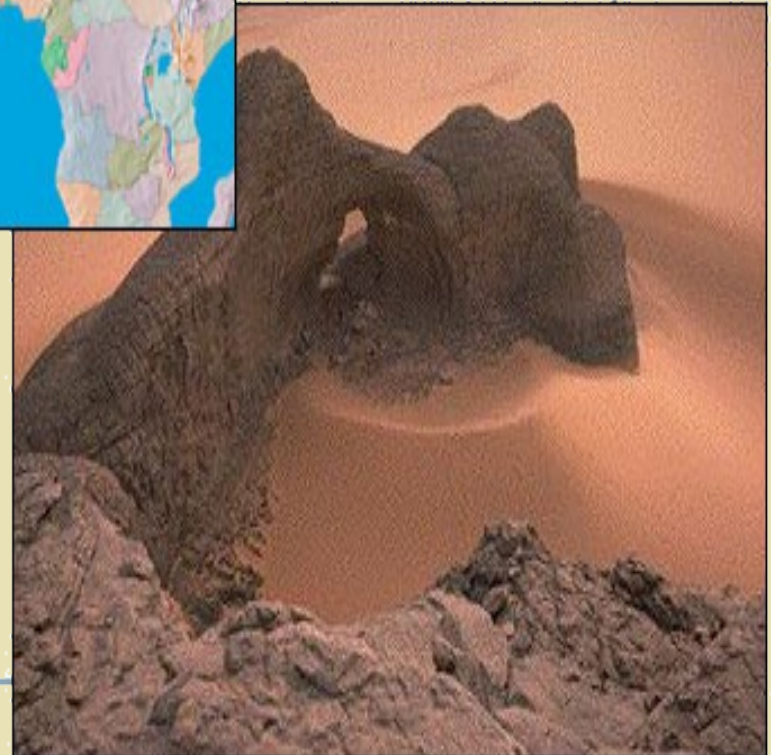


# Desert

- ◆ A desert is a very dry area.



The Sahara,  
Africa



# Prairie

- ◆ A prairie is a wide, relatively flat area of land that has grasses and only a few trees.

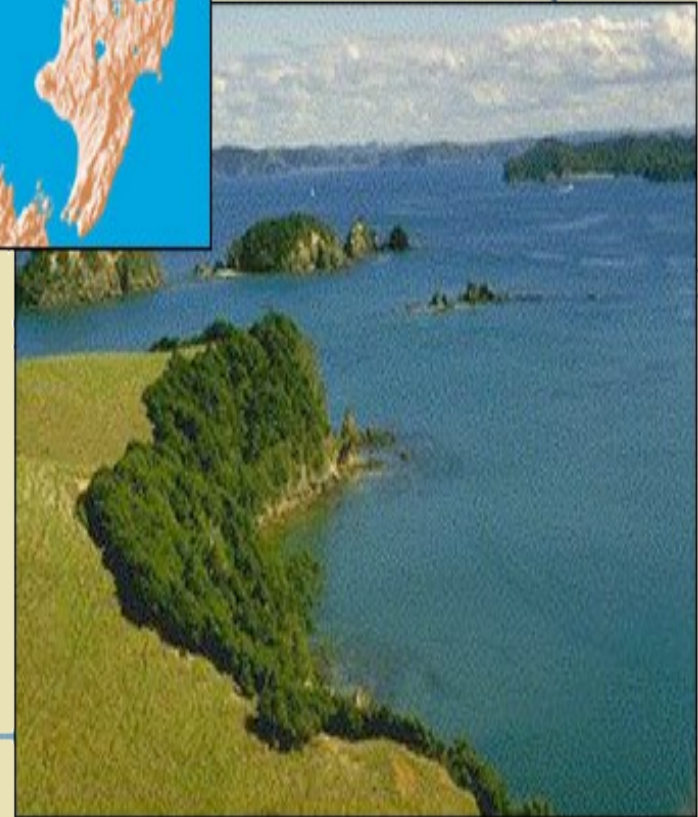


# Bay

- ◆ A bay is a body of water that is partly enclosed by land (and is usually smaller than a gulf).



Bay of Islands,  
New Zealand



# Valley

- ◆ A valley is a low place between mountains.

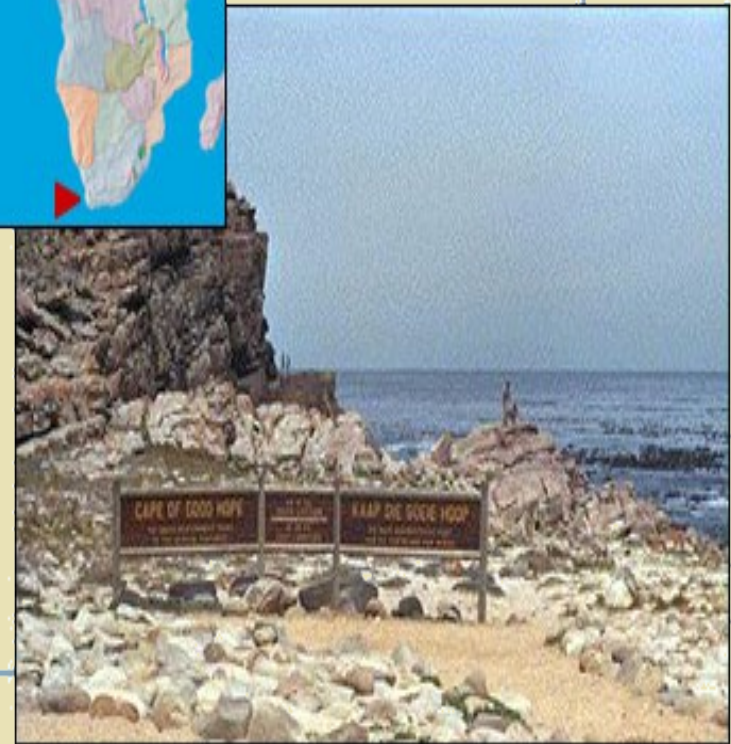


# Cape

- ◆ A cape is a pointed piece of land that sticks out into a sea, ocean, lake, or river.

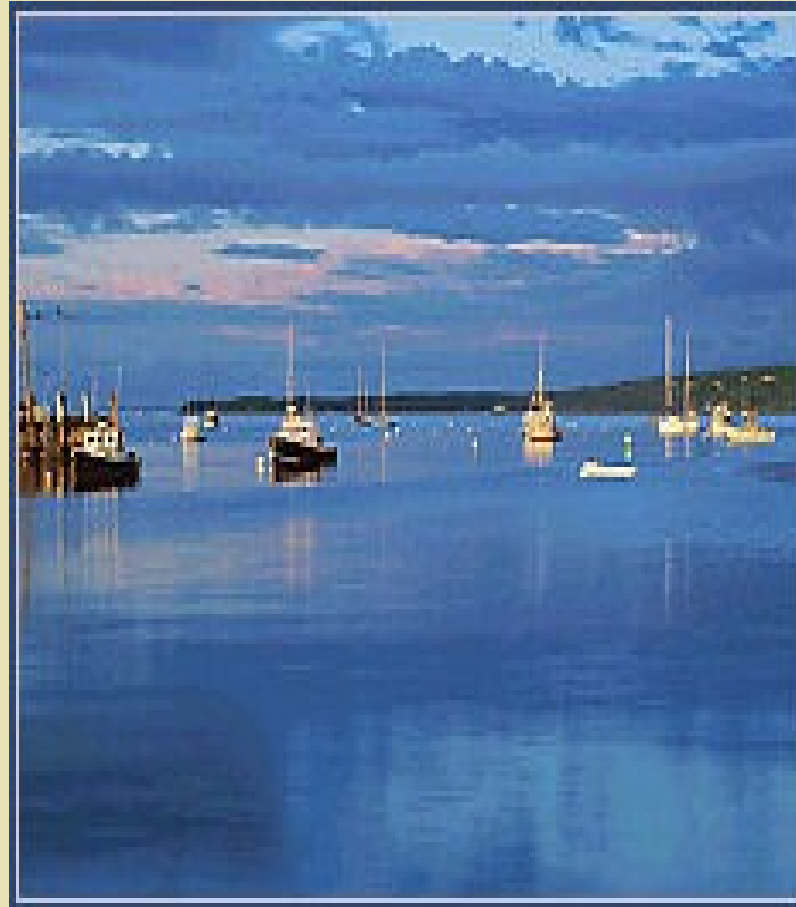


Cape of Good Hope,  
South Africa



# Harbor

- ◆ **A naturally or artificially protected basin on an ocean, lake, or river where ships may be anchored or docked without danger.**

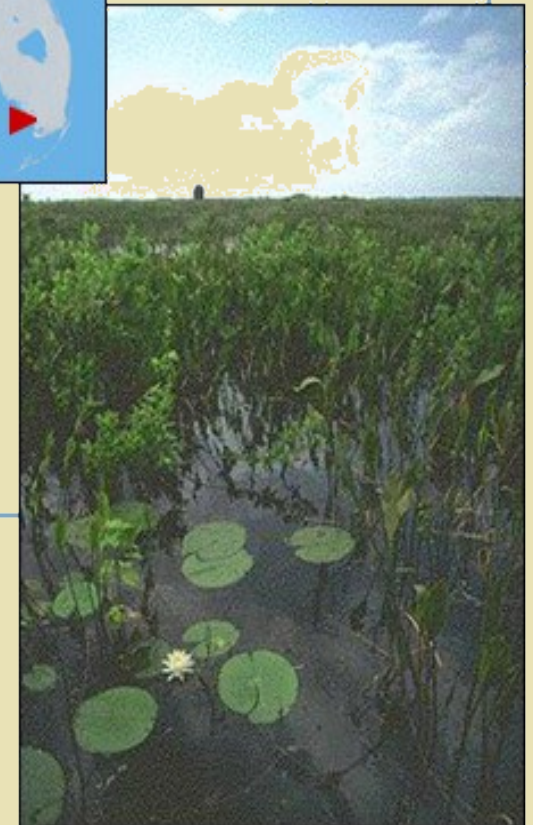


# Marsh

- ◆ A marsh is a type of freshwater, brackish water or saltwater wetland that is found along rivers, pond, lakes and coasts. Marsh plants grow up out of the water.



Everglades National Park,  
United States



# Swamp

- ◆ A swamp is a type of freshwater wetland that has spongy, muddy land and a lot of water. Many trees and shrubs grow in swamps.



Northern Swamp,  
United States





# Mississippi River

- The Mississippi River is the second longest river in the United States with a length of 2,340 miles. The river is an important transportation route from the grain producing states of middle America to the Gulf of Mexico.



The course and watershed of the **Mississippi River**  
*The Father of Waters*

**200 Miles**  
**400 Km**

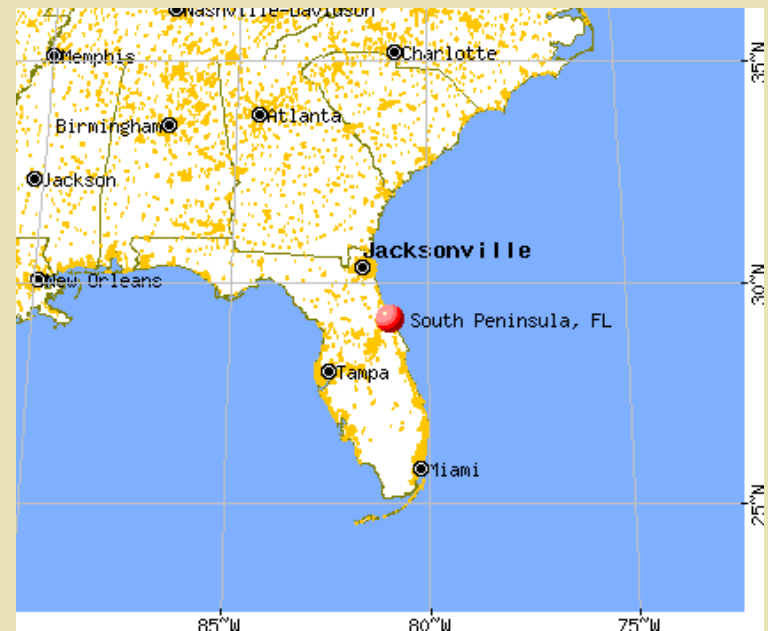
# Island

- ◆ An island is a piece of land that is surrounded by water.



# Peninsula

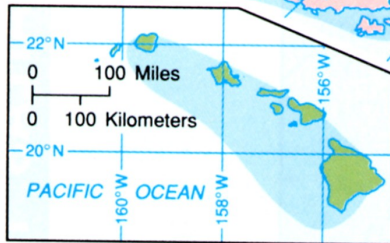
- ◆ An peninsula is a piece of land that is surrounded on three sides by water.



# Natural Resources

# The United States and Canada: Economic Activity and Resources

0 500 Miles  
0 500 Kilometers



- |                         |                     |
|-------------------------|---------------------|
| Nomadic Herding         | Hydroelectric Power |
| Hunting and Gathering   | Iron                |
| Forestry                | Copper              |
| Livestock Raising       | Bauxite             |
| Commercial Farming      | Gold                |
| Subsistence Farming     | Silver              |
| Manufacturing and Trade | Phosphates          |
| Commercial Fishing      | Uranium             |
| Little or No Activity   | Lead                |
| Coal                    | Nickel              |
| Petroleum               | Tungsten            |



© PH

# HUMAN-ENVIRONMENT INTERACTION

- **How do humans and the environment affect each other?**

- **We depend on it.**

- People depend on the rivers for water and transportation.



- **We modify it.**

- People modify our environment by heating and cooling buildings for comfort.



- **We adapt to it.**

- We adapt to the environment by wearing clothing suitable for summer (shorts) and winter (coats), rain and shine.



# Capital Resources



# Human Resources



# MOVEMENT

- How are people, goods, ideas moved from place to place?

- Human Movement

- Trucks, Trains, Planes



- Information Movement

- Phones, computer (email), mail



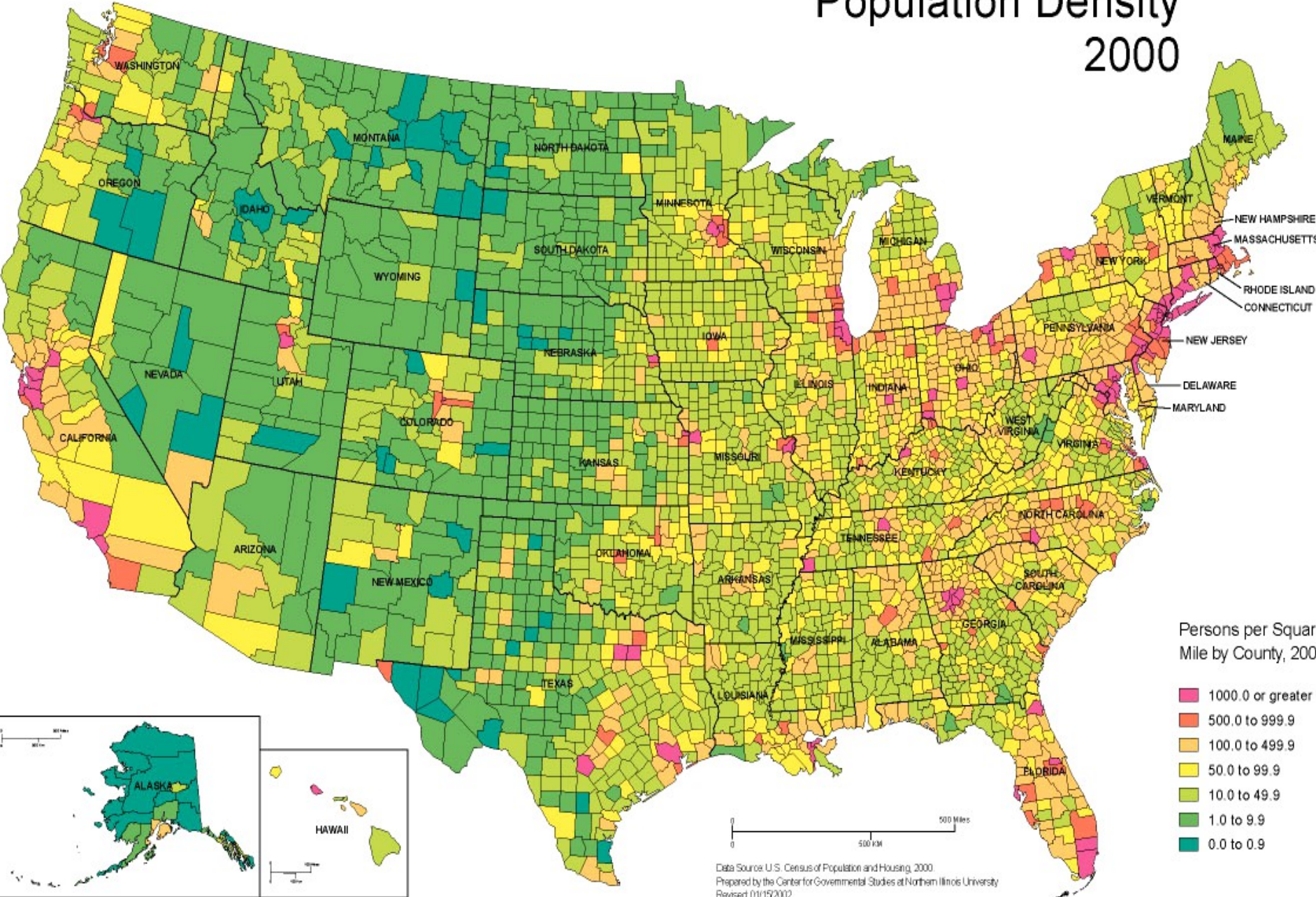
- Idea Movement

- How do fads move from place to place?

TV, Radio, Magazines



# Population Density 2000



Persons per Square  
Mile by County, 2000

- 1000.0 or greater
- 500.0 to 999.9
- 100.0 to 499.9
- 50.0 to 99.9
- 10.0 to 49.9
- 1.0 to 9.9
- 0.0 to 0.9

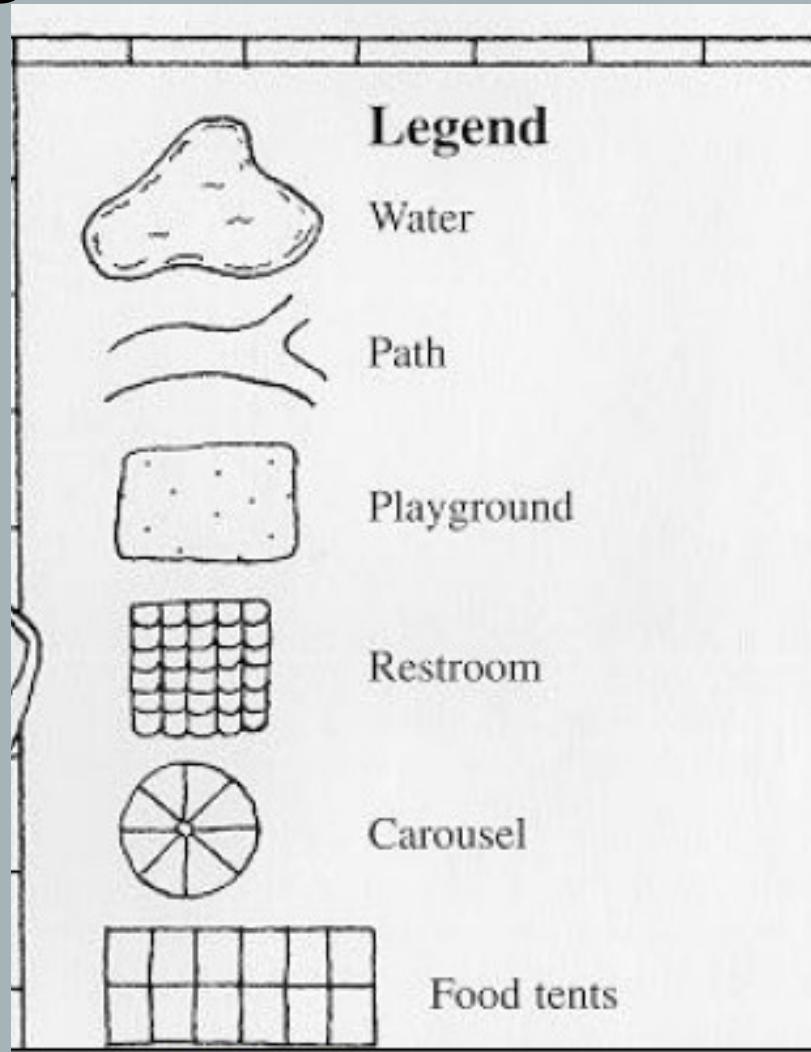
Data Source: U.S. Census of Population and Housing, 2000  
 Prepared by the Center for Governmental Studies at Northern Illinois University  
 Revised: 01/15/2002

# REGIONS

- **How are Regions similar to and different from other places?**
  - Regions defined by governmental or administrative boundaries (States, Countries, Cities)
  - Regions defined by similar characteristics (Corn Belt, Rocky Mountain region, Chinatown).

# Legend

- Maps often have symbols to represent such features as highways, small roads, campgrounds, and rest areas. These symbols are listed in the legend.



# Compass Rose

- ★ The compass rose shows the cardinal and intermediate directions on a map.

# Index

- ▶ The index tells you where to find a specific place on a map. Depending on the size and type of map you're using, the index can help you locate a city, town, or street.





# Scale

- ★ The scale helps you measure the distance between two places. When you know the distance you can calculate how long the trip will take.



# The World Political

- ◆ Political maps show how people have divided places on the Earth into countries, states, cities and other units for the purpose of governing them.





# The World Physical

- ◆ Physical maps show what the surface of the Earth looks like.

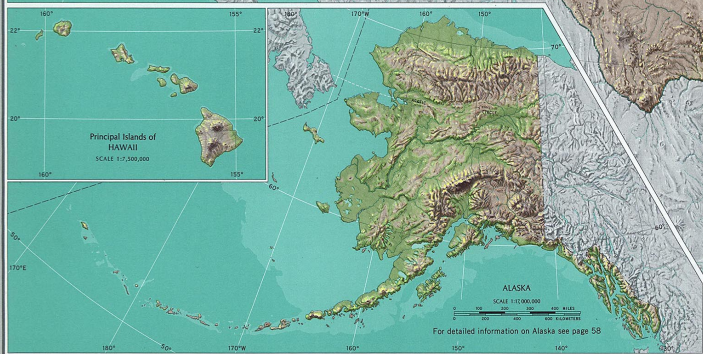




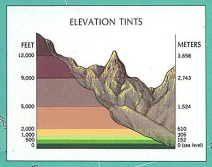


56

57



**SHADED RELIEF**  
Richard Edes Harrison, 1969  
Albers Equal Area Projection  
SCALE 1:7,500,000

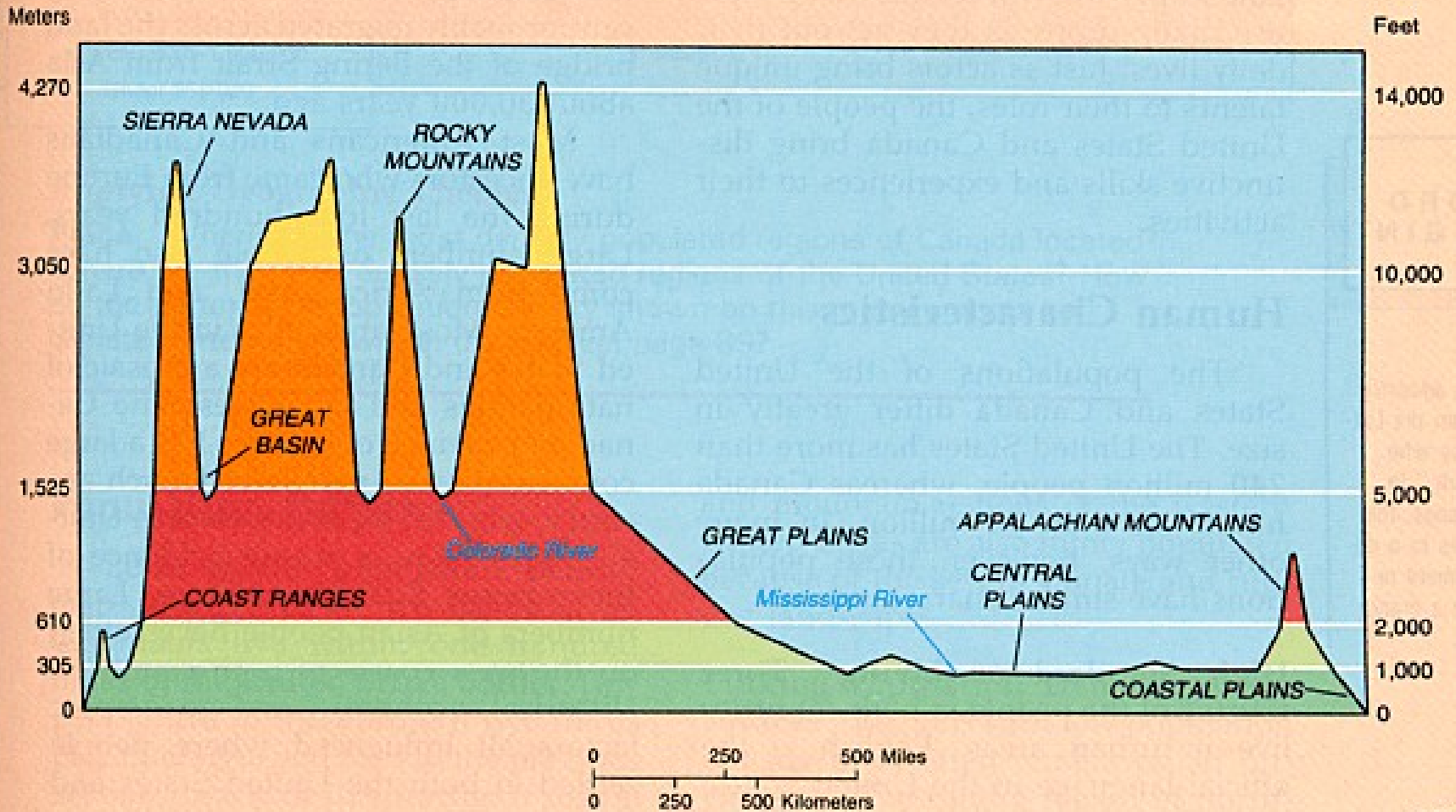


# Topography of the US



# The Contour of the US

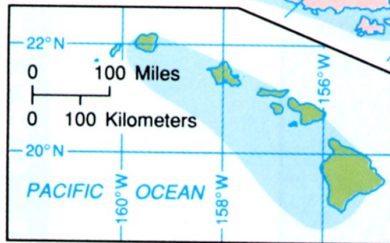
A Cross Section of the United States



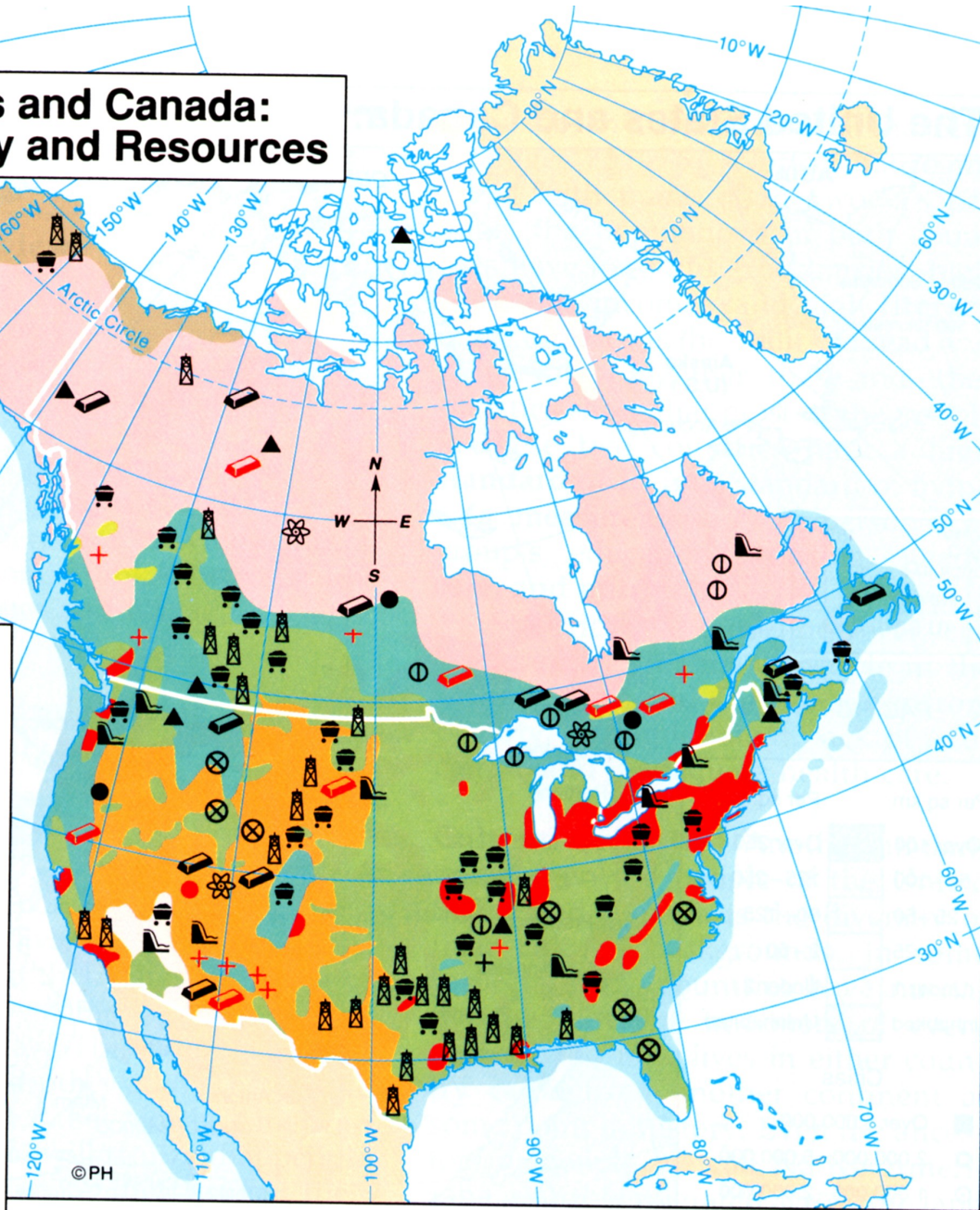


# The United States and Canada: Economic Activity and Resources

0 500 Miles  
0 500 Kilometers

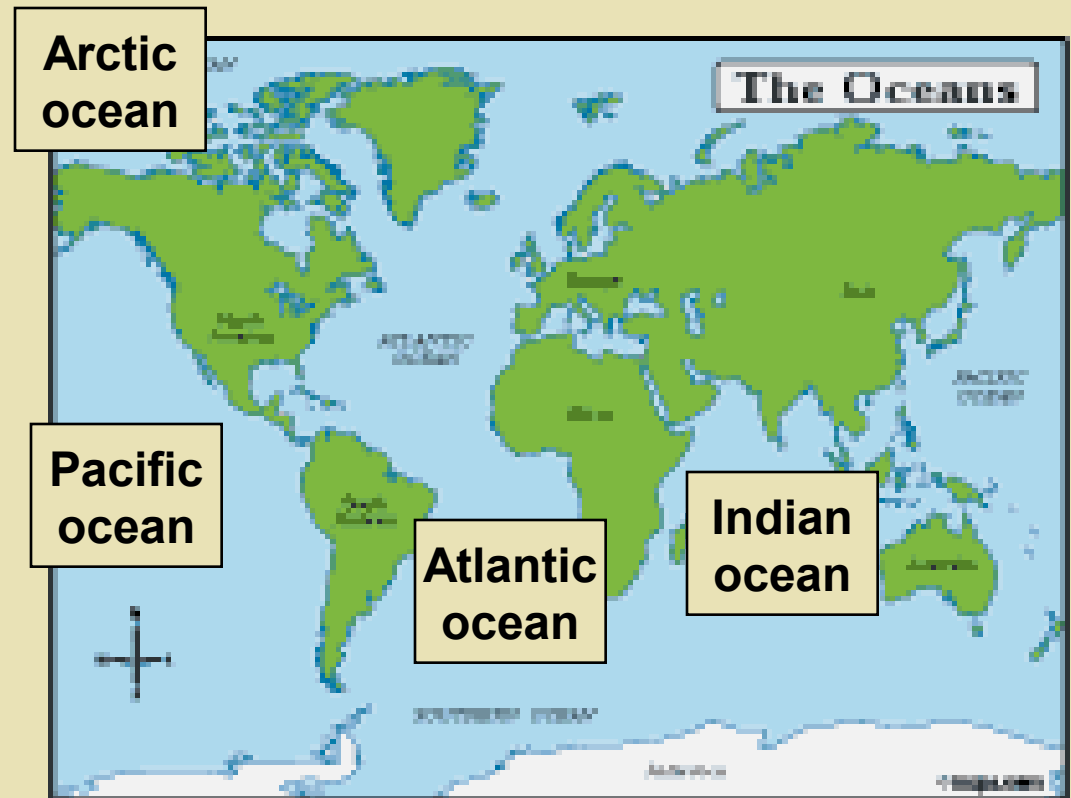


- |                         |                     |
|-------------------------|---------------------|
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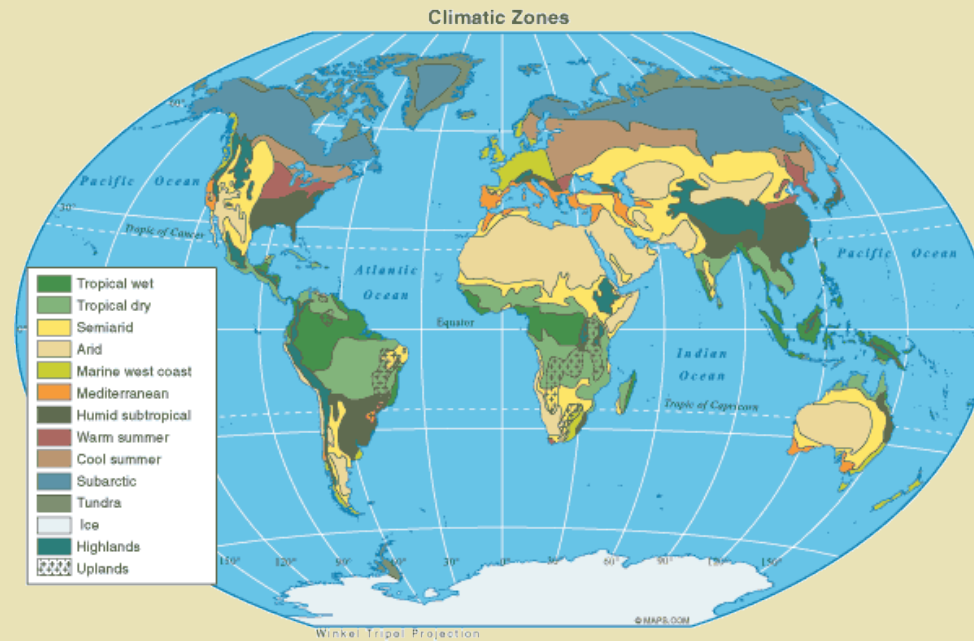
# Oceans of the World

- ◆ The world has four major oceans.
- ◆ Atlantic
- ◆ Pacific
- ◆ Arctic
- ◆ Indian



# Global Climates

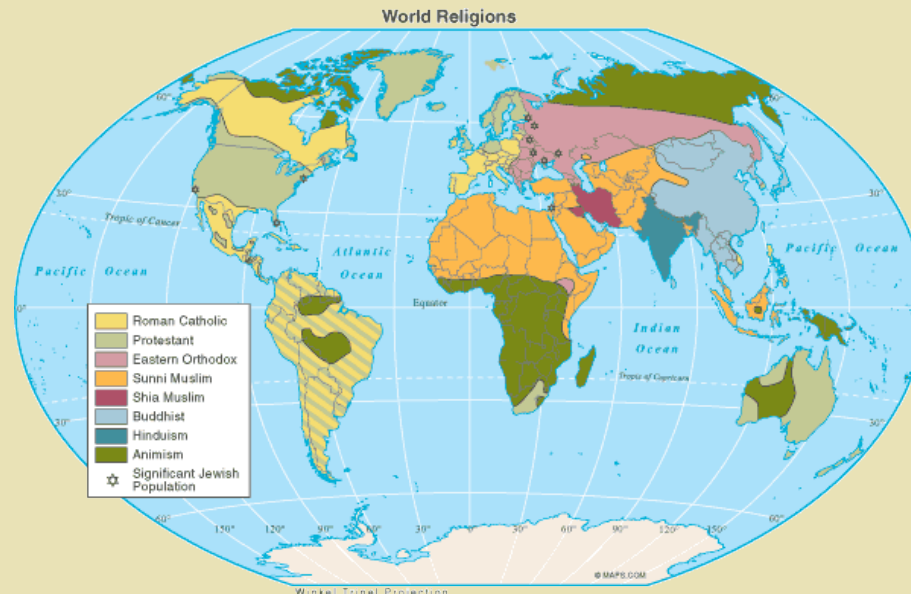
- ◆ Students generally associate Arctic and Antarctic with cold weather, so students could make the observation that the climate at the poles is cold. This map shows the general climate regions of the world.





# World Religions

- ◆ Religious beliefs help define a people's culture, so to understand a people, it is important to consider what religions influence that group.



# Remembering the 5 themes

- If you can't remembering what they are just ask MR. HELP!!!
  - *M* – Movement
  - *R* – Regions
  - *HE* – Human Environment interaction
  - *L* – Location
  - *P* - Place

STOP

# LONGITUDE AND TIME

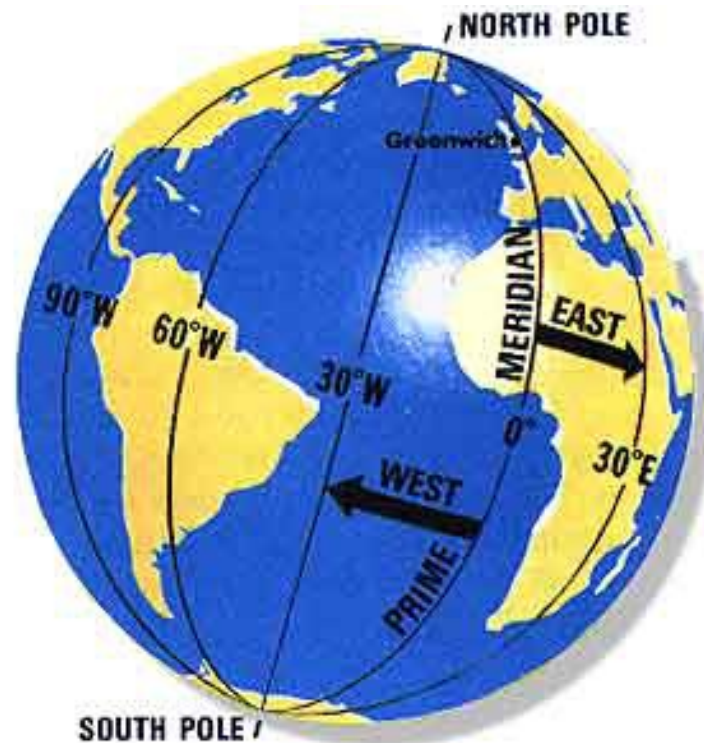
- The world rotates (spins)  $360^\circ$  in 24 hours.  
 $360^\circ / 24 \text{ hours} = 15^\circ \text{ per hour}$
- The world has 24 time zones, each  $15^\circ$  apart.

**THERE IS A 1 HOUR TIME  
DIFFERENCE FOR EVERY  $15^\circ$  OF  
LONGITUDE**

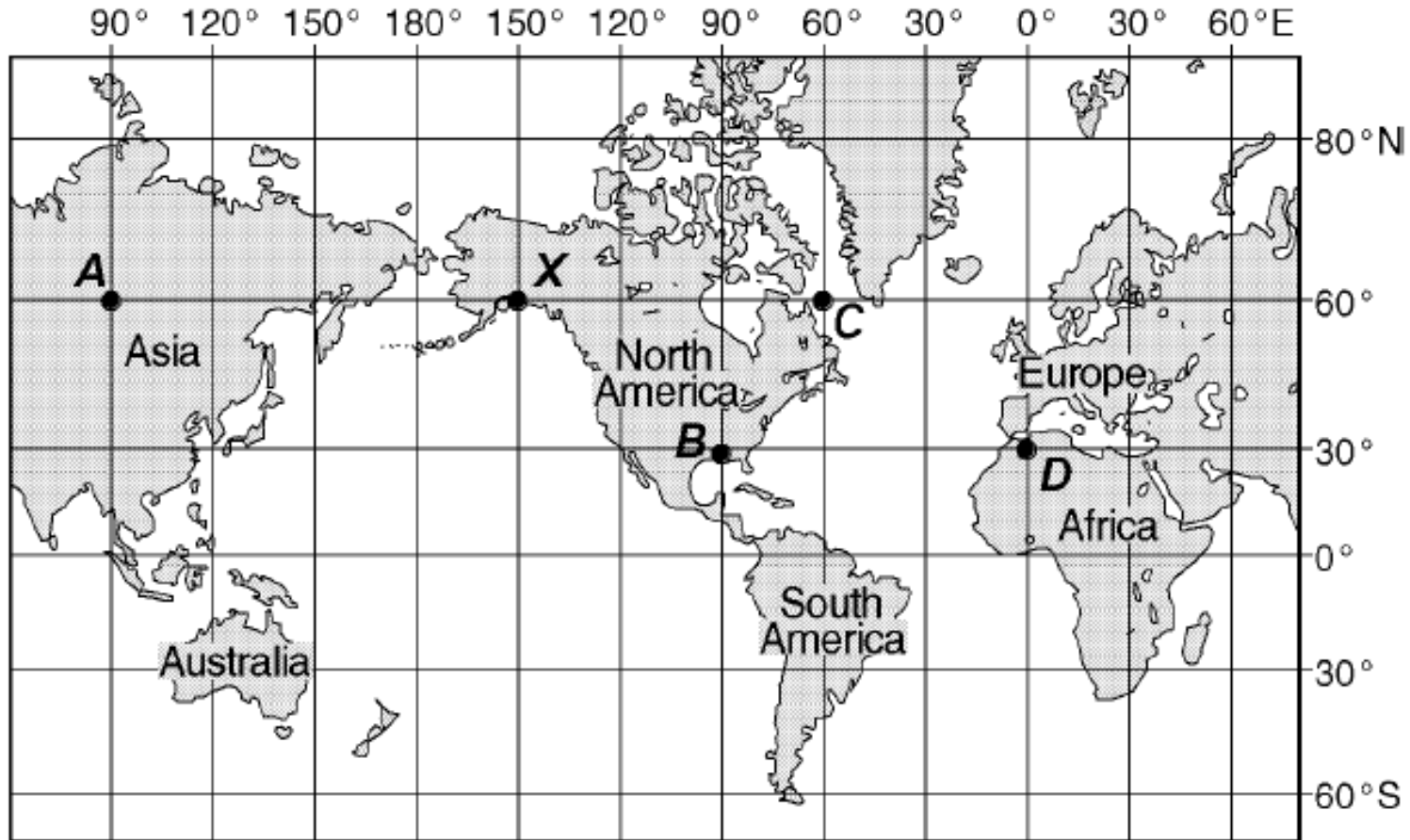


# Greenwich, England is the logical starting point for time zones

- The world rotates west to east (counterclockwise), time zones to the east are ahead of the those time zones to the west



# East Increase – West Less (1 hr per 15°)



If it 9 p.m. at Position D, what time is it at position C? Position B?

If it is 1 p.m. at Position X, at which location is the time 5 p.m.

Earth rotates west to east  
Solar time is based on the position  
of the sun  
**NIGHT IS FALLING ON EARTH**

**Look at the East Coast of the United States. The lights are already lit.**

**California the sun is still visible.**



This pictures shows  
AMERICAN CITIES at  
night.



Saguenay

Sept-Iles

St. John

Thunder Bay

Toronto

Ottawa

Québec

Montréal

Those light are Boston, New York, Philadelphia and Washington.

Detroit

Dallas

Houston

Miami

Puerto Rico

Mexico City

Havana

Port-au-Prince

It's still daylight in California



Iceland

England

Atlantic  
Ocean

France

Spain

Italy

AFRICA