

UNIT 1

THE BASICS OF GEOGRAPHY

CHAPTER 1

LOOKING AT THE EARTH

Section 1.1: The 5 Themes of Geography



.Geography comes from a Greek word meaning “writing about” or “describing” the earth.

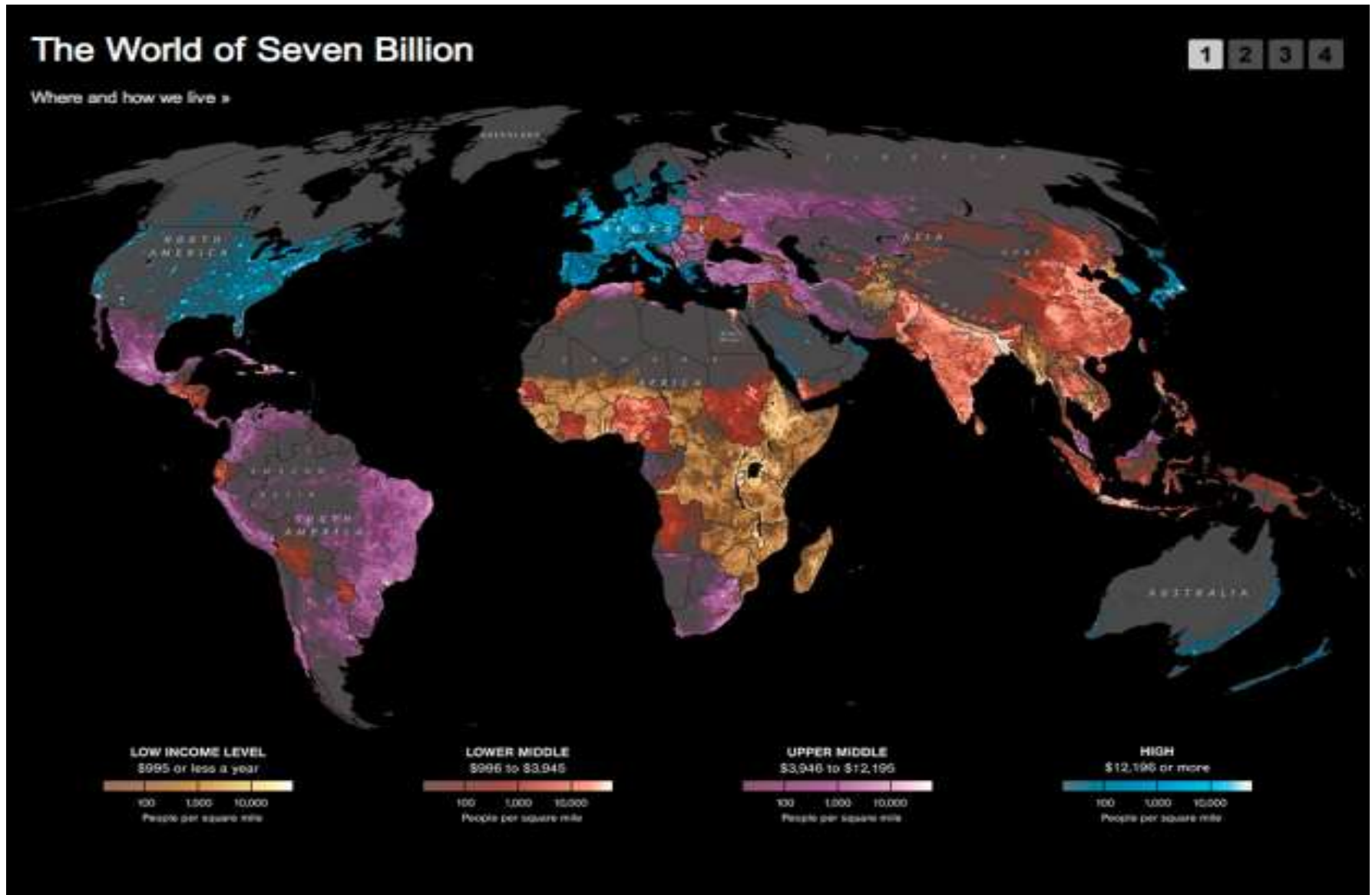
•Geography is:

•Geographers use a variety of tools to study the use of space on earth

METHODS OF GEOGRAPHY

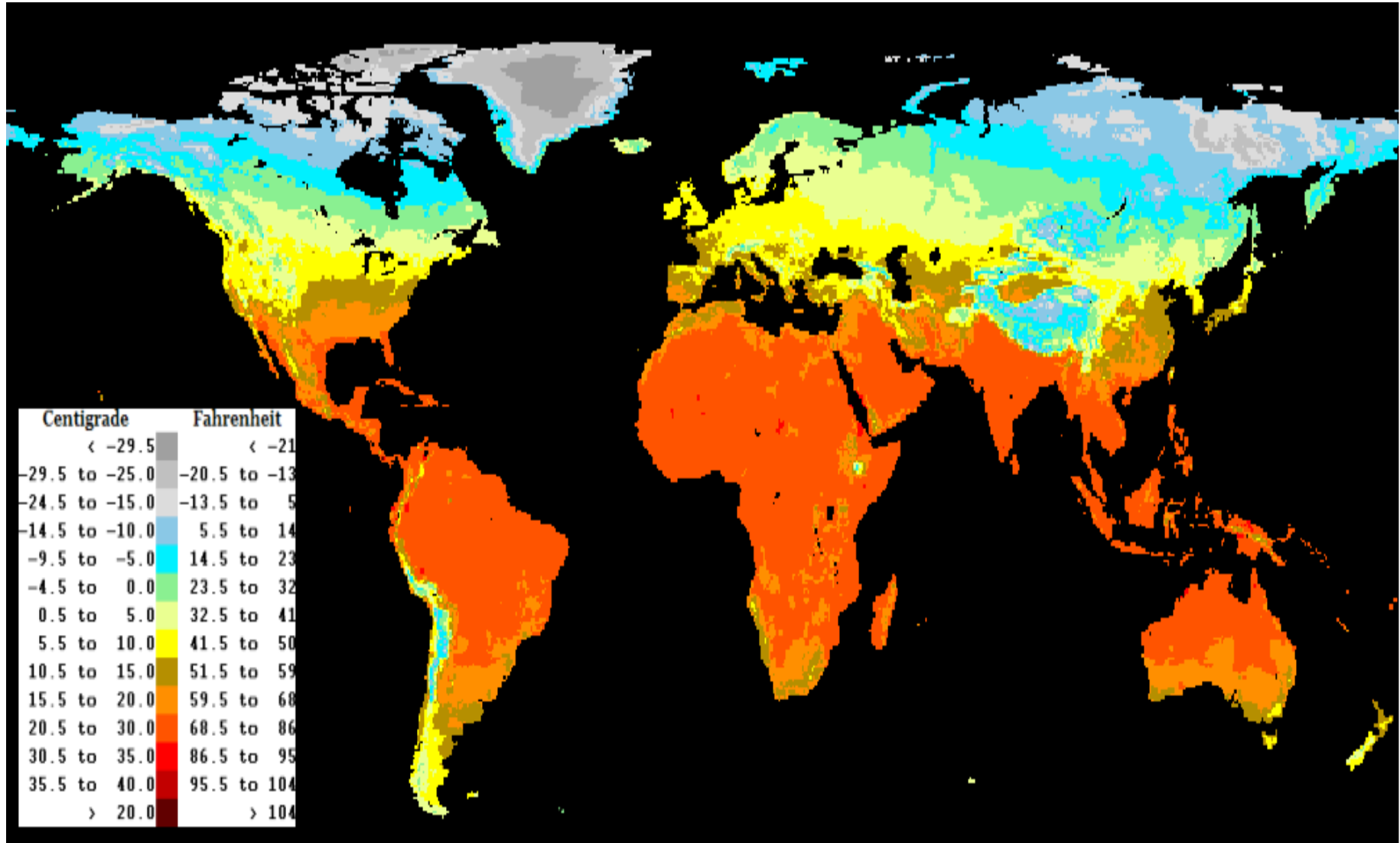
- MAPS:
- Maps:
 - changing boundaries of a nation
 - population density
 - climate
 - Vegetation
 - agricultural products

World Population Density Map

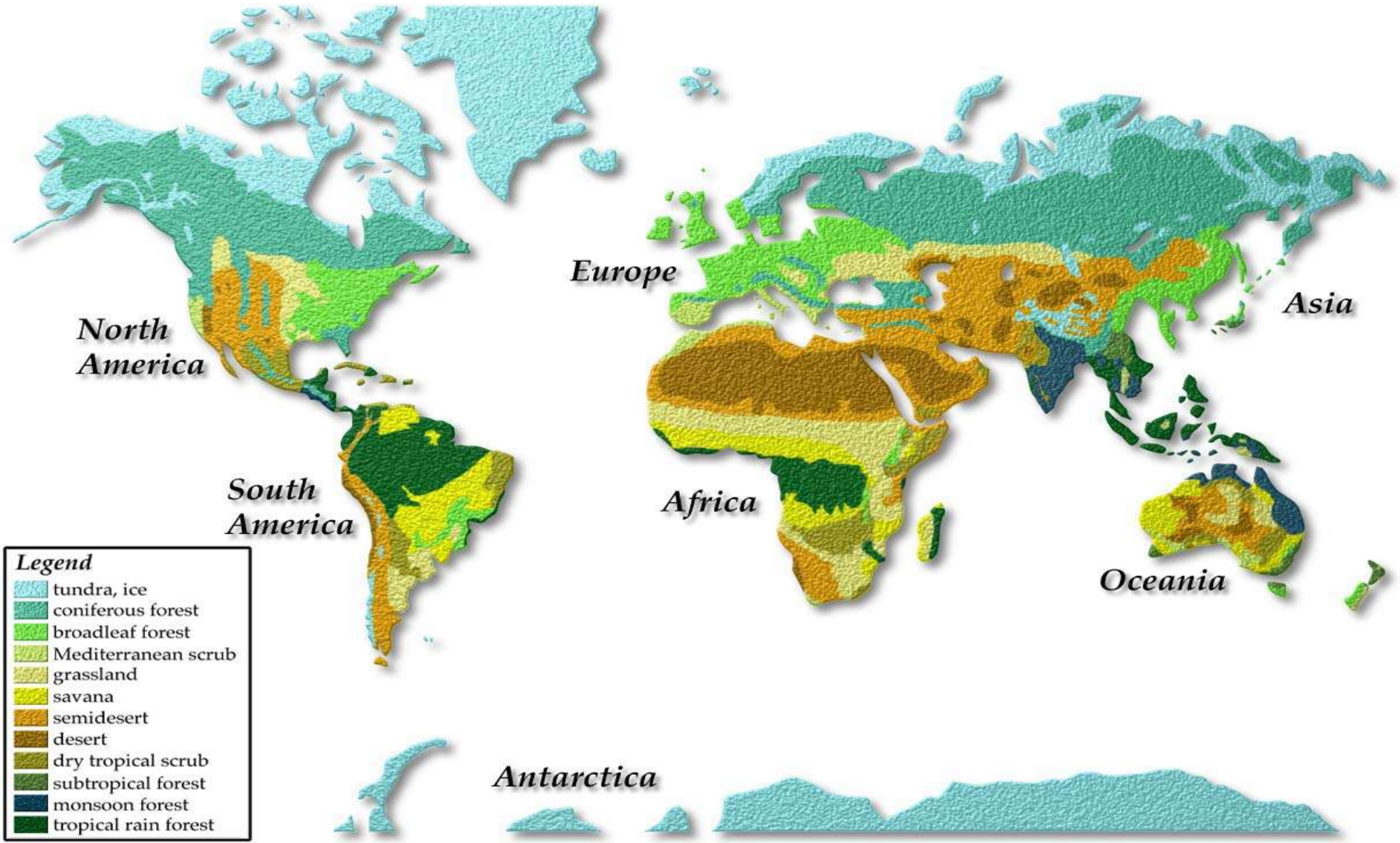


<http://ngm.nationalgeographic.com/2011/03/age-of-man/map-interactive>

Climate Map: Annual Avg. Temperature



World Vegetation Map



Legend

	tundra, ice
	coniferous forest
	broadleaf forest
	Mediterranean scrub
	grassland
	savana
	semidesert
	desert
	dry tropical scrub
	subtropical forest
	monsoon forest
	tropical rain forest

Agricultural Imports Map

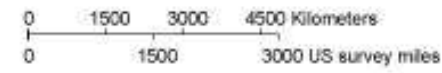
WORLD
TOP TEN Countries by Agricultural Imports



LEGEND

Country	Imports in US\$ Million (2008)	Country	Imports in US\$ Million (2008)
Germany	82,991	France	53,149
U.S.A.	82,442	Netherlands	49,542
China	80,960	Italy	44,836
U.K.	58,360	Belgium	37,472
Japan	56,664	Spain	31,577

Source: FAO Statistical Yearbook , 2010



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METHODS OF GEOGRAPHY

- **PHOTOGRAPHS:** Gain visual evidence about a place
- **CHARTS, GRAPHS, TABLES:** Organize information, learn about patterns & understand changes
- **5 THEMES OF GEOGRAPHY:**

Photographs



World Population Chart

The World of Seven Billion

Population

Most future population growth will happen in the less developed countries, where birthrates remain highest.

LOW INCOME LEVEL
\$295 or less a year

1 billion



LOWER MIDDLE
\$296 to \$3,945

4 billion



UPPER MIDDLE
\$3,946 to \$12,195

1 billion



1 2 3 4

HIGH
\$12,196 or more

1 billion



Life expectancy at birth

Improved health care and nutrition have raised life expectancy from a global average of 52 years in 1960 to 69 years today.



Deaths under age five (per 1,000 live births)

Worldwide there has been remarkable improvement. Since 1960, the number of children who die before age five has fallen by more than half.



Access to improved sanitation (percent)

The UN defines this as access to toilets—even simple pit toilets—that keep excrement away from humans, animals, and insects.



Deaths caused by infectious disease (percent)

The top five causes of death by infectious disease are acute respiratory infections (such as pneumonia), HIV/AIDS, diarrhea, TB, and malaria.



Years of education

Increases in education affect not only economic development but populations: The more education a woman receives, the fewer children she is likely to bear.



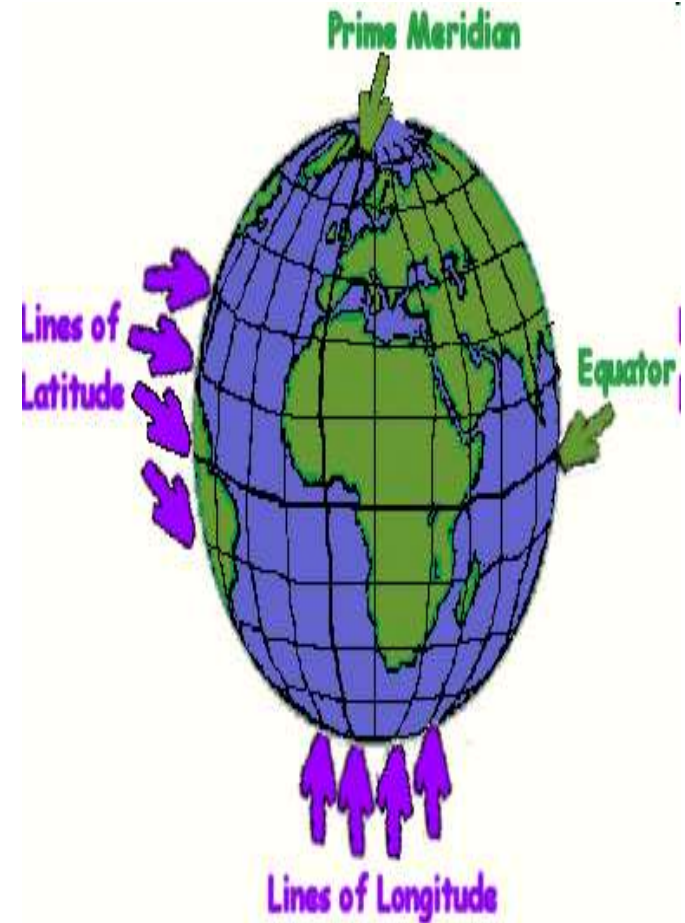
Data for each category above were first compiled for all countries in each income level. The data were then averaged, accounting for differences in population.

5 THEMES OF GEOGRAPHY

LOCATION – Where is it?

ABSOLUTE LOCATION:

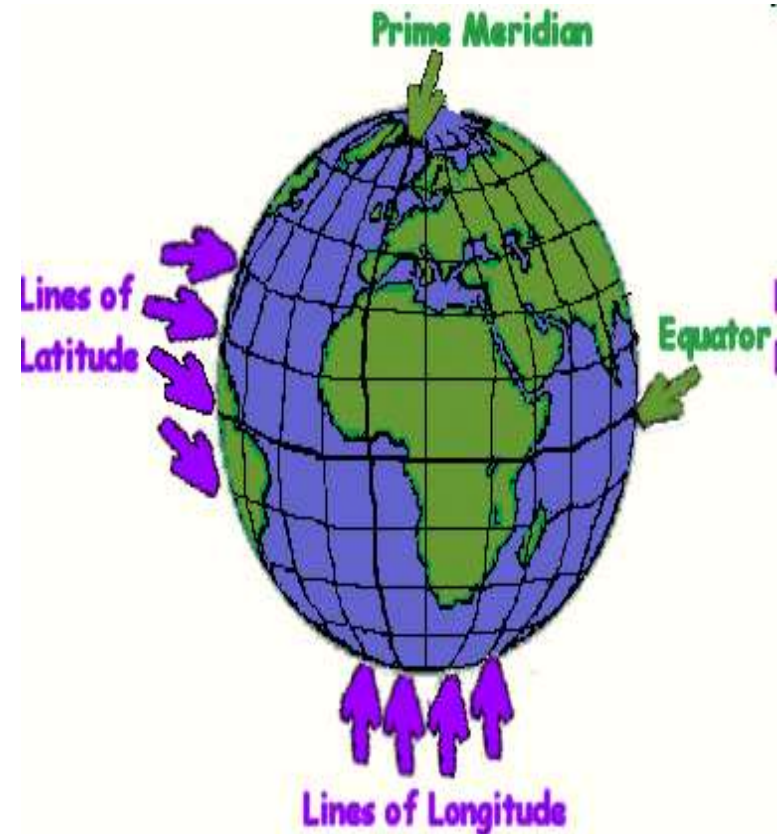
- Lines of latitude are those that run parallel to the Equator (east to west).
 - The Equator is a line of latitude that divides the earth into the northern and southern hemisphere.
 - The equator is the starting point for lines of latitude with a designation of 0° latitude.
 - Lines of latitude are called parallels.



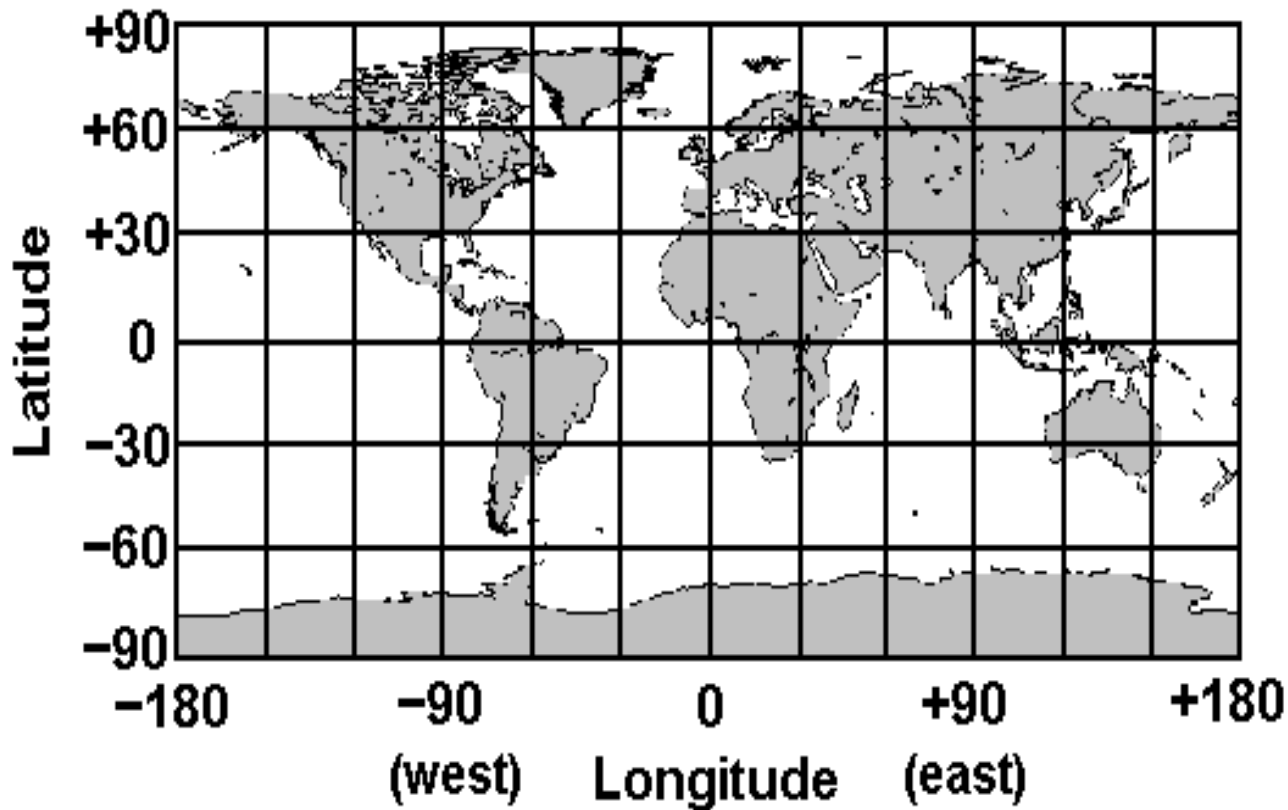
5 THEMES OF GEOGRAPHY

LOCATION – Where is it?

- Lines of longitude are those that run north and south between the North and South poles.
- Lines of longitude are called:
- The Prime Meridian which runs through Greenwich, England has a:



THE GRID SYSTEM



Rome, Italy is 41°N and its longitude is 12°E .

The grid location of 41°N , 12°E will never change no matter what map you use.

www.satsig.net

- The grid system is made up of intersecting lines of latitude (parallels) and longitude (meridians).

HEMISPHERES

- Geographers also have divided the Earth into:
- Using the Equator, the Earth is divided into the:
- The Earth is also divided into the:



5 THEMES OF GEOGRAPHY

LOCATION – Where is it?

Relative location:

Compares location of one place to another in less precise terms. For example: New Orleans: 500 miles S of Memphis, 900 S of Chicago, etc..

* While a place can have only one absolute location:



5 THEMES OF GEOGRAPHY

- **Place (What is it like?)**

- The place's distinctive characteristics in both physical and human terms.

- Physical – **landforms** (mountainous vs. level), **ecosystems** (vegetation or lack thereof), **climate** (weather patterns and extremes)
 - Human:

5 THEMES OF GEOGRAPHY

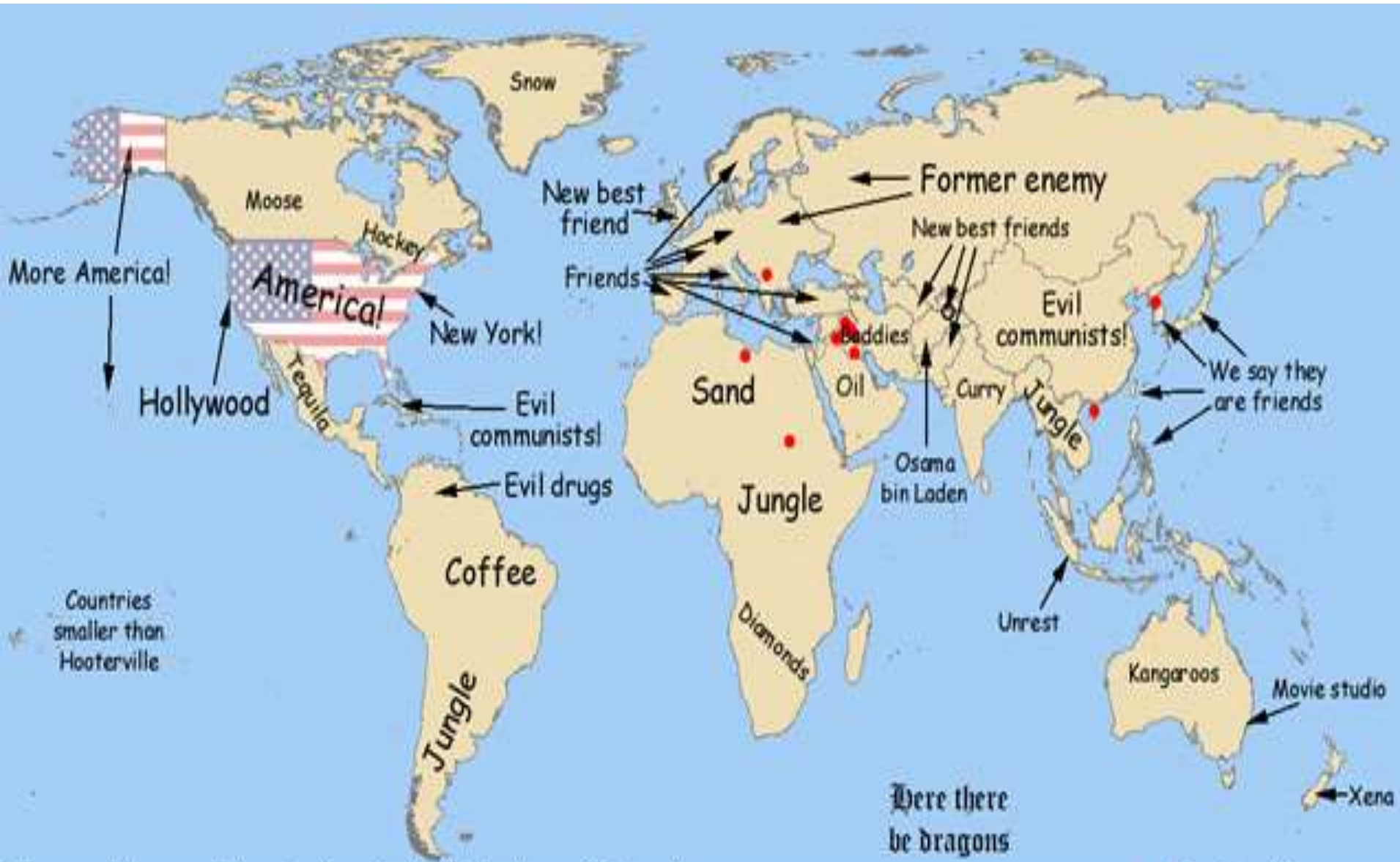
- **Region** (How is one place different/similar to another?)
 - A group of places w/:

 - A region may be determined by people's:

5 THEMES OF GEOGRAPHY

- **Region** (How is one place different/similar to another?)
 - **Formal regions** – areas where a certain characteristic is found throughout. Such characteristics may be defined by man (ex: political boundaries) or by nature (ex: Corn Belt, California...).
 - **Functional regions** – a central place and surroundings affected by it (ex: Dallas-Fort Worth is a metropolitan area in which the two cities share an airport).
 - **Perceptual regions** – defined by people's attitudes and feelings about areas (what specific areas are considered part of "Dixie"?).

Perceptual Regions - "Political" Map



The world according to the United States of America

• Bombed here

5 THEMES OF GEOGRAPHY

- **Human-Environment Interaction (How do people relate to the physical world)**
 - Humans affect their environment:
 - Changes can be :
 - People living in similar environments do not respond to them in the same way
 - People work to alter their environments to:

Human Environment Interaction



Massive soil erosion on a slope under intensive Maize production, Guatemala



Human-Environment Interaction: See Goode's World Atlas, pp. 132-133



© Martin Langer / Contrasto

5 THEMES OF GEOGRAPHY

- **Movement :**

- Movement can help to redefine a place.

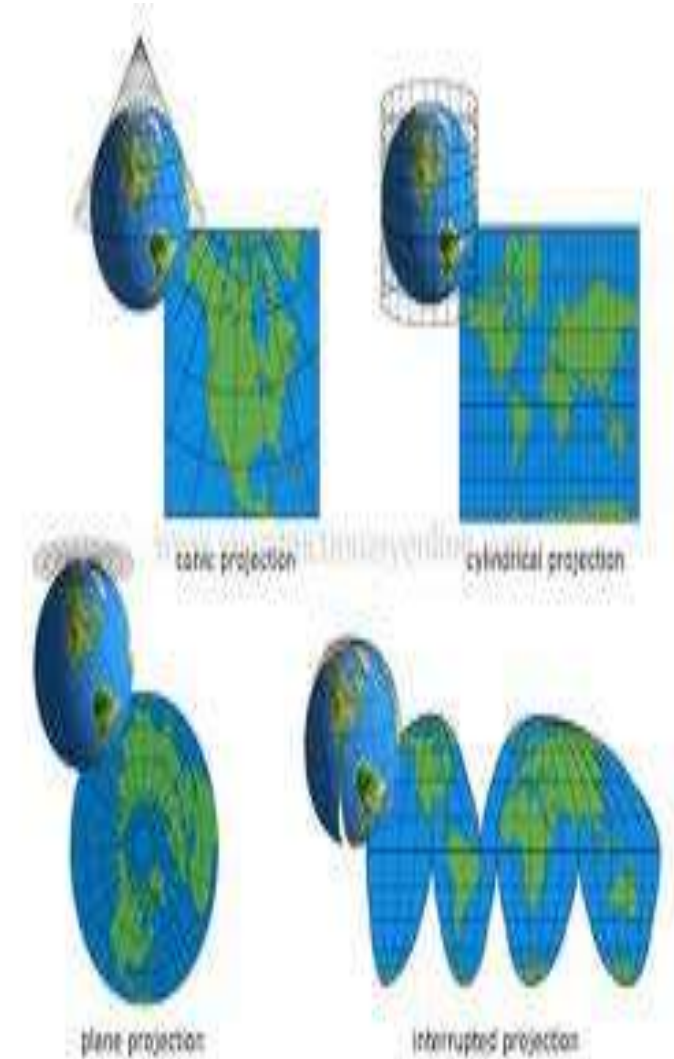
- Ex: Immigration and Emigration rates for a country, imports vs. exports, media help to define movement.

5 THEMES OF GEOGRAPHY

- **Movement** (How do people, goods, and ideas move between places?)
 - Linear Distance
 - Time Distance
 - Psychological Distance

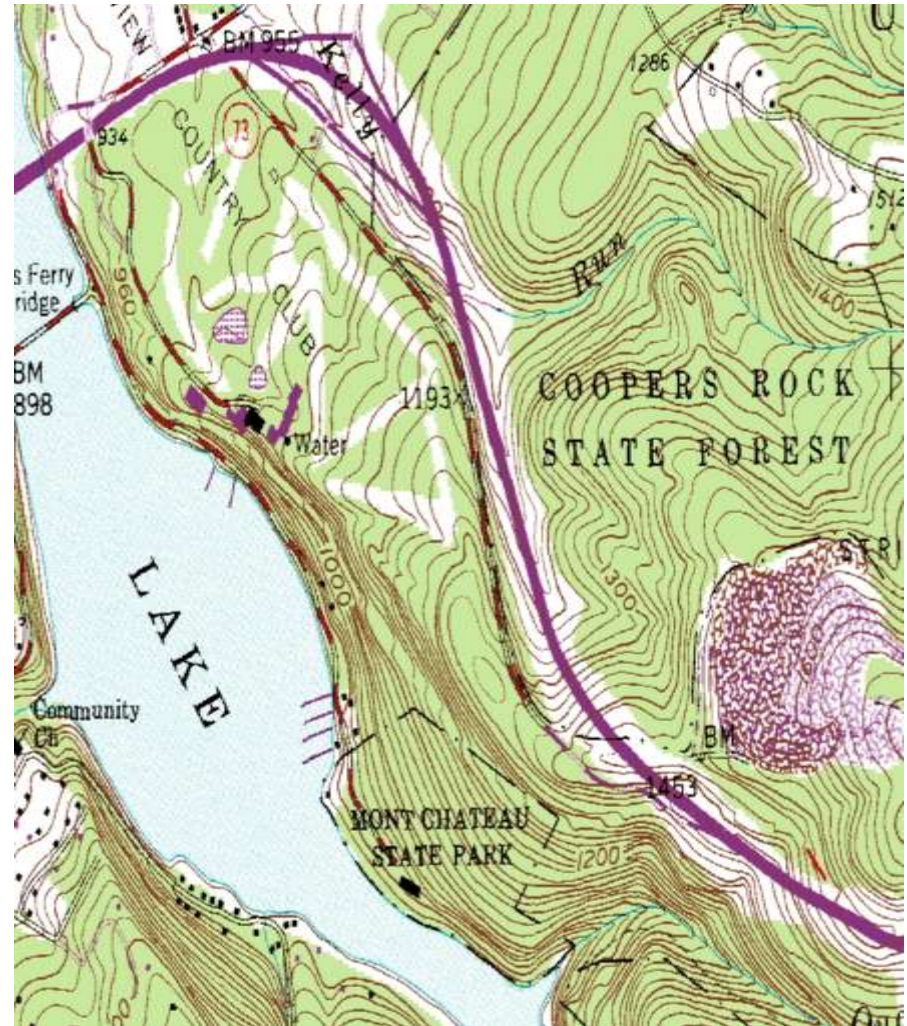
Section 1.2: THE GEOGRAPHER'S TOOLS

- **GLOBE:**
 - Three dimensional representation of the earth.
- **MAPS:**
 - Two dimensional:
- **CARTOGRAPHER:**
 - Mapmaker
- **MAP PROJECTION:**
 - Way of drawing the earth's surface that:



TYPES OF MAPS

- General Reference Map
 - Topographic Map –



TYPES OF MAPS

- Thematic Maps



America Election Results 2012 - 2013

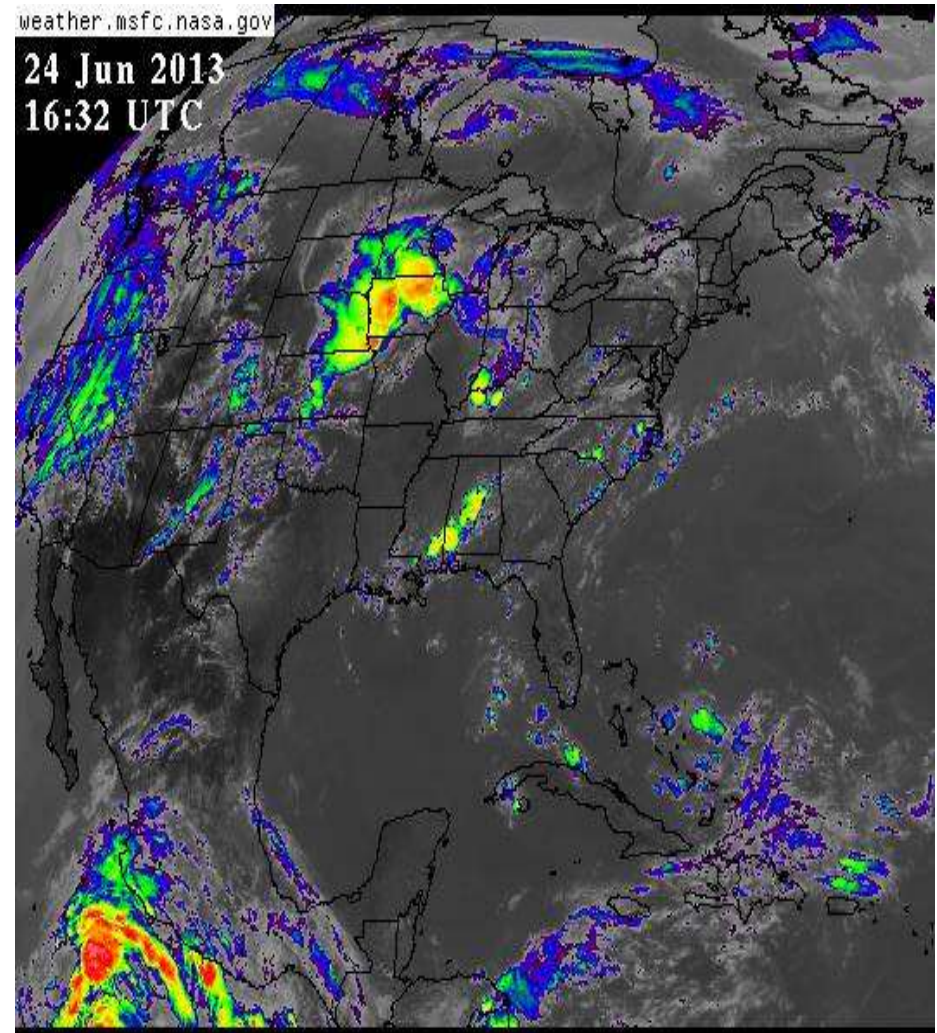
Science of Mapmaking

- Surveying
 - Landsat
 - Data used by cartographers to construct maps



GOES

- Satellites fly in orbit in synch with Earth's rotation.
- Always view the same area
- Gather images of:



GPS

- Uses Navstars to tell:
- <http://abcnews.go.com/US/stalking-great-white-sharks-innovative-gps-tagging-project/story?id=18549565#.Uciw9tjAETA>

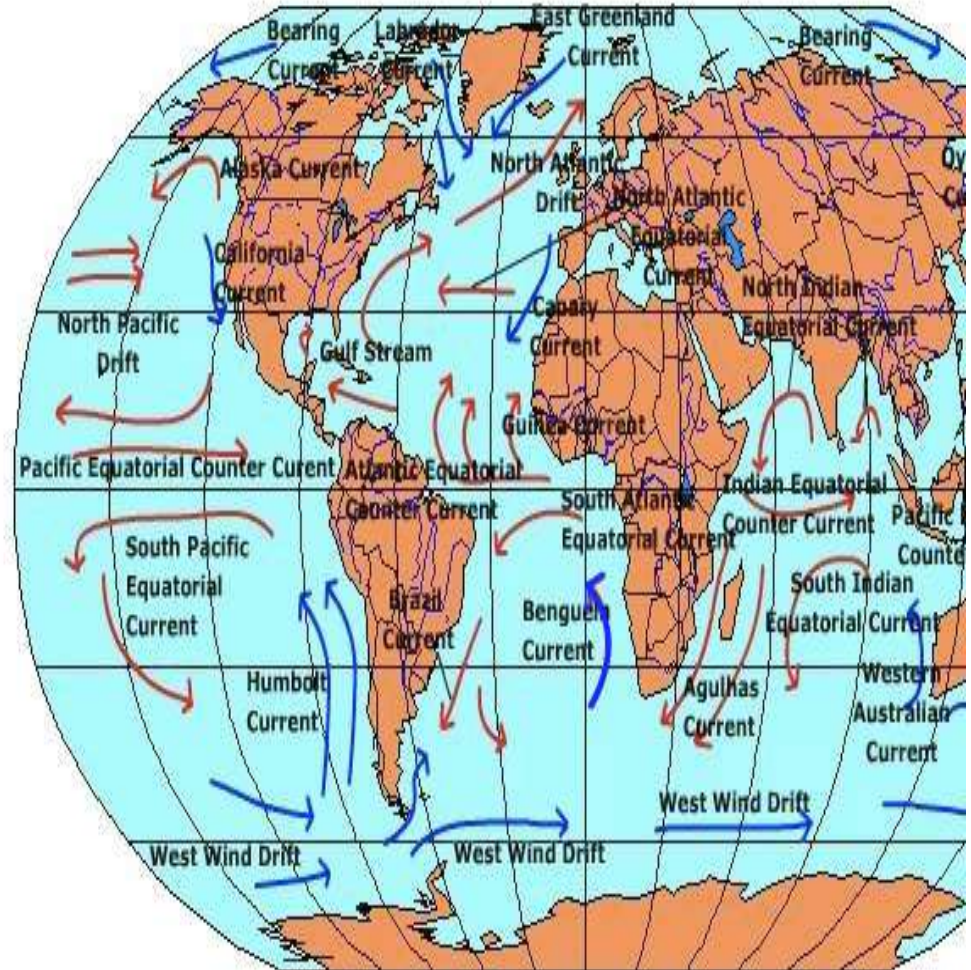


CHAPTER 3

CLIMATE AND VEGETATION

Section 3.2: CLIMATE

- Wind Currents
 - Hot air flows:
- Ocean Currents
 - Warm water flows towards:
 - Affect area's:



- Zones of Latitude

- Low or :
- Middle or :
- High or :

- Elevation

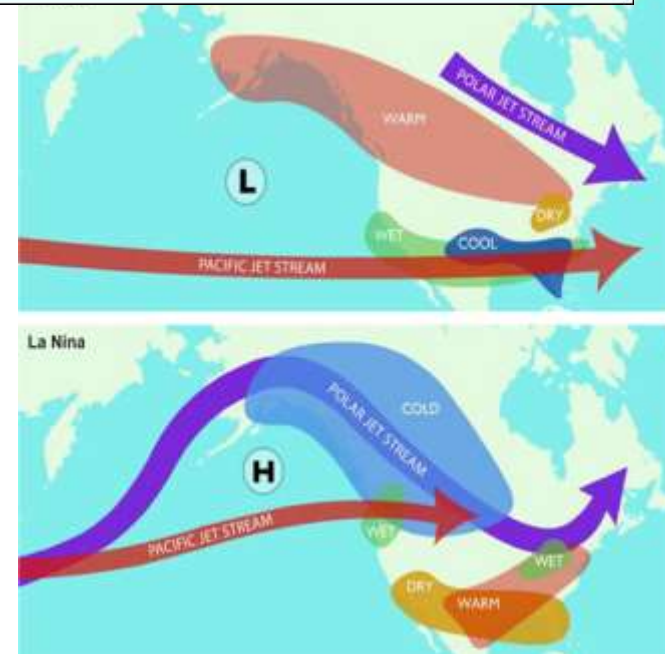
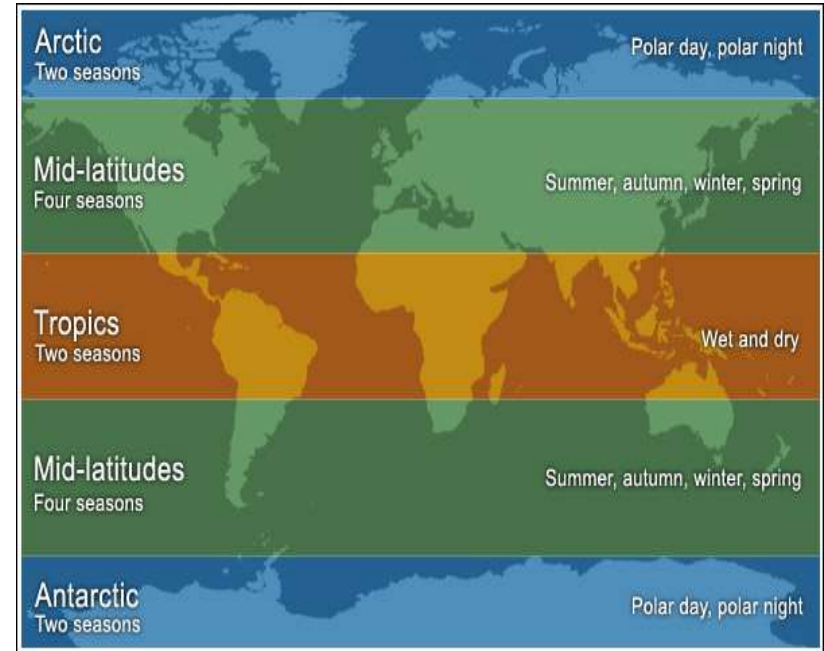
- Distance:
- Air temp drops at :

- El Nino

- Every 2-7 years, winds push warm water and heavy rains towards :

La Nina

- Reverse of El Nino, winds blow warmer water:



- Climate Change

- Temperature :

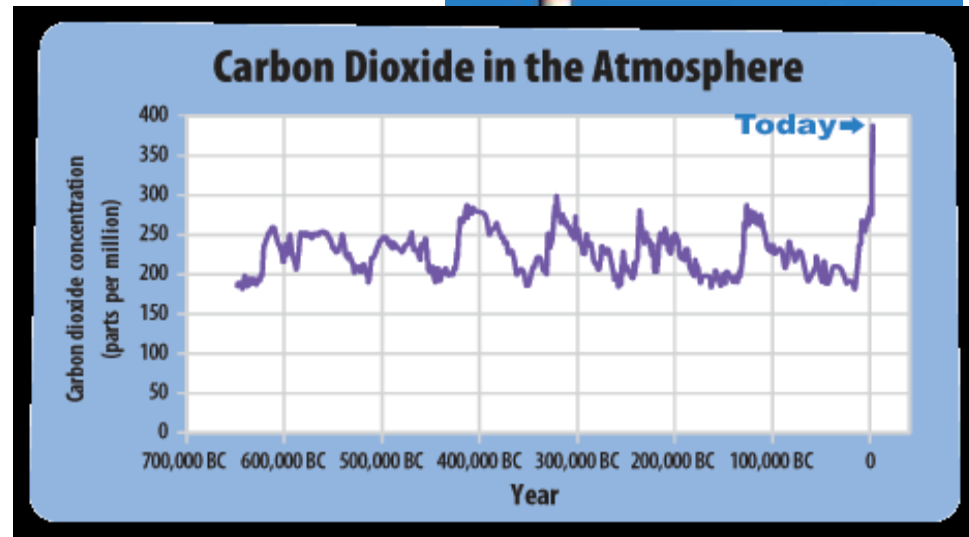
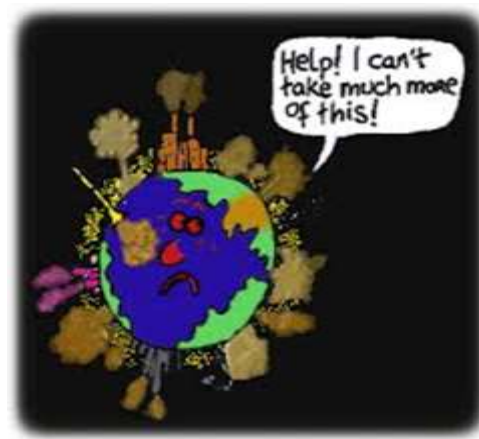
- Increase in :

- Average rising temperatures

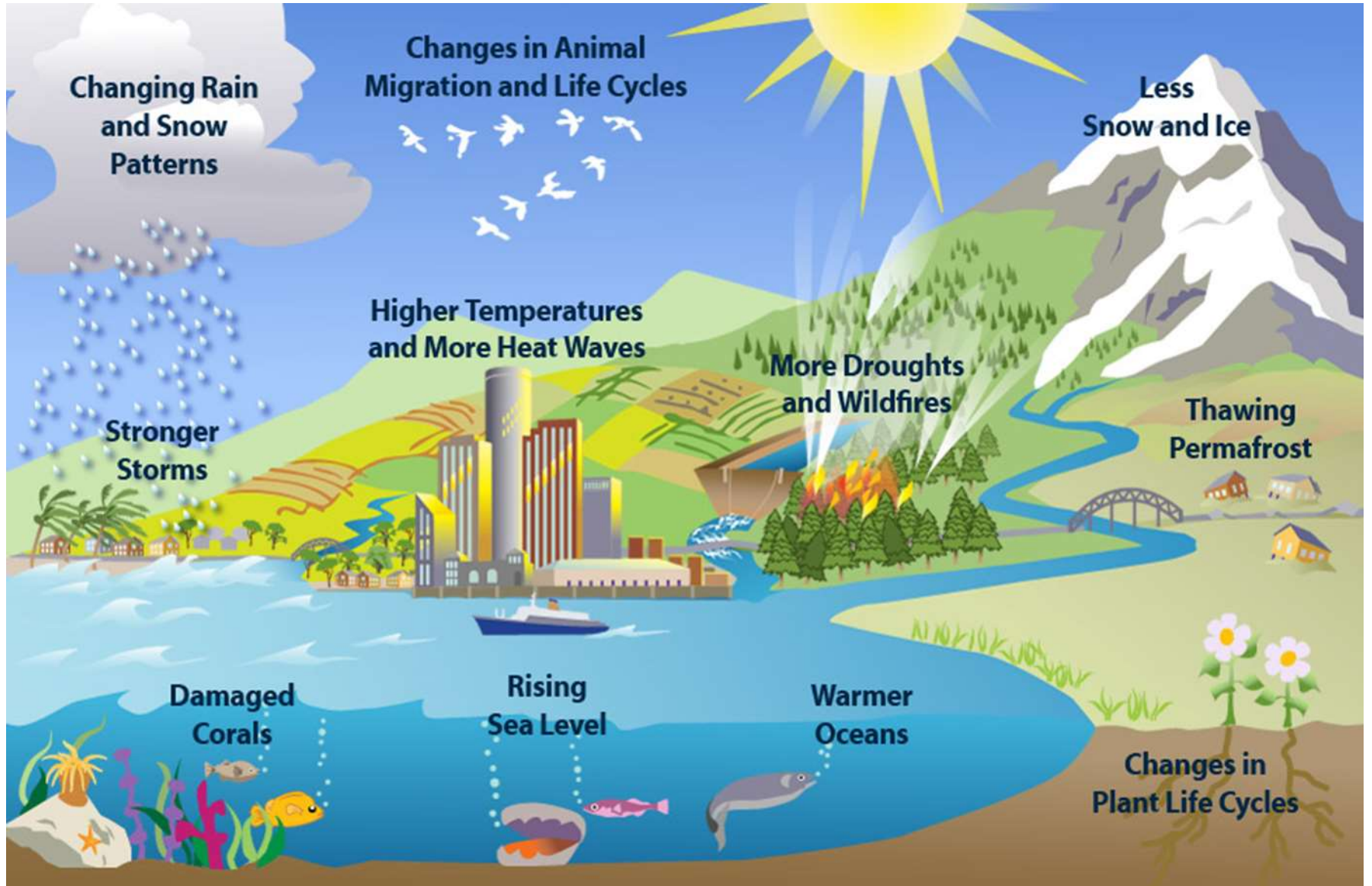
- Temps increased by:

- Predicted to rise :

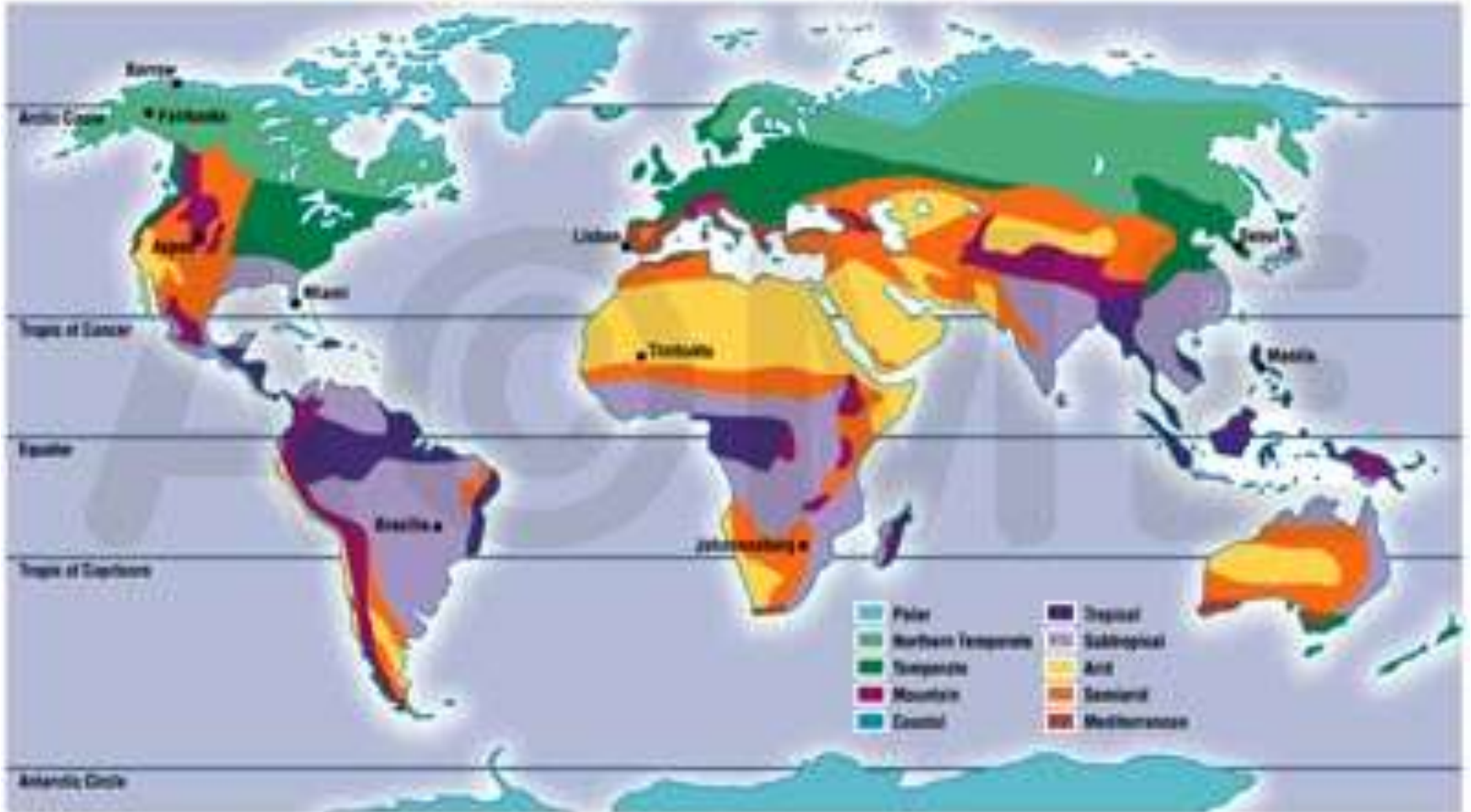
- Greenhouse effect



http://www.huffingtonpost.com/2013/08/08/starved-polar-bear-found-dead-norway-climate-change_n_3720236.html



Global Climate Regions



World Vegetation Regions

