Unit I. Geography: Its Nature and Perspectives

This unit will establish a definition of geography. We will discuss a brief history of the discipline and examine some of the frameworks that have been established to help study the discipline. We will discuss some of the main concepts and define some of the basic vocabulary used in geography. We will also begin to develop a sense of place as we review map skills.

> *AP Human Geography emphasizes the importance of geography as a field of inquiry and introduces students to the concept of spatial organization. Knowing the location of places, people, and events is a gateway to understanding complex environmental relationships and interconnections among places and across landscapes.*
>
> *Geographic concepts emphasized throughout the course are location, space, place,scale of analysis, pattern, regionalization, and globalization. These concepts are basic to understanding spatial interaction and spatial behavior, the dynamics of human population growth and migration, patterns of culture, political control of territory, areas of agriculture production, the changing location of industry and economic development strategies, and evolving human settlement patterns, particularly urbanization. Students learn how to use and interpret maps and spatial data, apply mathematical formulas, and interpret models in order to better understand the world from a spatial perspective.*
>
> *The course enables students to consider the regional organization of various phenomena and encourages geographic analysis in order to understand processes in a changing world. For example, geographic perspectives on the impact of human activities on the environment, from local to global scales, include effects on land, water, atmosphere, population, biodiversity, and climate. These human ecological examples are inherent throughout the course, especially in topics dealing with population growth, agricultural and industrial practices, and rapid urbanization. A significant outcome of the course is developing students' awareness of geographic methods and the relevance of geospatial technologies to a variety of situations (e.g., everyday life, planning and public policy, professional decision making, problem solving at scales from local to global).*
>
> [Course Description: Human Geography, 2015, The College Board, Advanced Placement Program.]

ENDURING UNDERSTANDING

A. Geography, as a field of inquiry, looks at the world from a spatial perspective.

B. Geography offers a set of concepts, skills, and tools that facilitate critical thinking and problem solving.

C. Geographical skills provide a foundation for analyzing world patterns and processes.

D. Geospatial technologies increase the capability for gathering and analyzing geographic information with applications to everyday life.

E. Field experiences continue to be important means of gathering geographic information and data.

LEARNING OBJECTIVES

- Explain the importance of geography as a field of study
- Explain major geographical concepts underlying the geographic perspective.
- Use landscape analysis to examine the human organization of space.
- Use spatial thinking to analyze the human organization of space.
- Use and interpret maps.

- Use and interpret maps.
- Apply mathematical formulas and graphs to interpret geographic concepts.
- Use and interpret geographic models.
- Use concepts such as space, place, and region to examine geographic issues.
- Interpret patterns and processes at different scales.
- Define region as a concept, identify world regions, and understand regionalization processes.
- Explain and evaluate the regionalization process.
- Analyze changing interconnections among places.
- Use and interpret geospatial data.
- Use quantitative and qualitative geographic data.

ESSENTIAL KNOWLEDGE

- Geographic information provides context for understanding spatial relationships and human–environment interaction.
- Geographical concepts include location, place, scale, space, pattern, nature and society, networks, flows, regionalization, and globalization.
- Landscape analysis (e.g., field observations, photographic interpretations) provides a context for understanding the location of people, places, regions, and events; human–environment relationships; and interconnections between and among places and regions.
- People apply spatial concepts to interpret and understand population and migration; cultural patterns and processes; political organization of space; agriculture, food production, and rural land use; industrialization and economic development; and cities and urban land use.
- Maps are used to represent and identify spatial patterns and processes at different scales.
- Types of maps include reference maps (e.g., physical and political maps) and thematic maps (e.g., choropleth, dot, graduated symbol, isoline, cartogram).
- All map projections (e.g., Mercator, polar) inevitably distort spatial relationships (e.g., shape, area, distance, direction).
- Mathematical formulas and graphs are used to analyze rates of natural increase in population, population doubling time, rank-size rule for cities, and distance-decay functions.
- Geographers use models as generalizations to think systematically about topics such as land use (e.g., von Thünen model, Latin American city model), industrial location (e.g., Weber model), and the distribution of settlements (e.g., Christaller's central place theory).
- Geographical issues include problems related to human–environmental interactions (e.g., sustainable agriculture); conflict and cooperation among countries (e.g., European Union); and planning and public-policy decision making (e.g., pronatalist policies).
- Patterns and processes at different scales reveal variations in and different interpretations of data (e.g., age–sex pyramids, population density).
- Regions are defined on the basis of one or more unifying characteristics (e.g., corn belt) or on patterns of activity (e.g., hinterlands of ports).

- World regions are defined for this course by the maps in the course curriculum section of the AP Human Geography Course Description.
- World regions may overlap (e.g., Southeast Asia and Asia) and often have transitional boundaries (e.g., North Africa and Sub-Saharan Africa).
- Regional thinking is applied at local, national, and global scales.
- Regionalism refers to a group's perceived identification with a particular region at any scale (e.g., Quebec).
- Interconnections among places include exchanges of natural resources, agricultural commodities, finished products, services, people, information, money, and pollutants.
- Geospatial technologies include geographic information systems (GIS), satellite navigation systems (e.g., global positioning system), remote sensing, and online mapping and visualization.
- Geospatial data (e.g., census data, satellite imagery) is used at all scales for personal (e.g., navigation), business (e.g., marketing), and governmental (e.g., environmental planning) purposes.
- Data may be gathered in the field by organizations (e.g., census data) or by individuals (e.g., interviews, surveys, photography, informal observations).
- Quantitative and qualitative geographic data are used in economic, environmental, political, and social decision making.

BASIC VOCABULARY AND CONCEPTS

Map - maps are the tool most uniquely identified with geography; the ability to use and interpret maps is an essential geographic skill. [Distortion]
Map scale - distance on a map relative to distance on Earth [graphic, ration, verbal]
Scale - relative size
Space time compression
Model - a simplified abstraction of reality, structured to clarify causal relationships]: geographers use models to explain patterns, make informed decisions, and predict future behaviors
Spatial / Space- of or pertaining to space on or near Earth's surface
Space time compression
Spatial interaction [accessibility, connectivity, network, distance decay, friction of distance, time-space compression]
Absolute (Location, Direction, Distance) [site and situation]
Relative (Location, Direction, Distance)

Diffusion
- Hearth
- Hierarchical
- Relocation
- Stimulus

Density
- Arithmetic
- Physiological

Distribution
Dispersion/concentration
- dispersed/scattered
- clustered/agglomerated

Pattern
- Linear
- Centralized
- Random

- Region
  - formal/uniform
  - functional/nodal
  - perceptual/vernacular
- Grid
  - North and South Poles
  - Latitude
  - Parallel
  - Equator
  - Longitude
  - Meridian
  - Prime meridian
  - International Date Line
  - Greenwich Mean Time (GMT)
- Map types
  - Thematic
  - Statistical
  - Cartogram
  - Dot
  - Choropleth
  - Isoline
  - Mental
  - Contour
- Projection
  - Mercator
  - Peters
  - Robinson
- Remote sensing
  - Geographic Information System (GIS)
  - Global Positioning System (GPS)
- Carl Sauer
  - Regional Studies [AKA: cultural landscape, cultural attributes]
- Census
- Environmental determinism
- Possibilism
- Globalization
- Regionalization
- Hydrosphere
- Resource
  - Nonrenewable Resource
  - Renewable Resource
  - Recycle
- Pattern
  - Linear
  - Clustered/centralized
  - Random
- Place
- Polder
- Preservation
- Sustainability
- Eratosthenes

STUDY QUESTIONS

1. What are basic concepts human geographers use to study people and their cultures?
2. What is a system? Distinguish between a human and physical system.
3. Explain why maps are considered the language of geography. List some of the many ways they are used.
4. What is a mental or a cognitive map? Why are they important? How are they developed and improved?
5. Why are theoretical models important to human geographers? How do they relate to real life situations?
6. Define region. What types of regions are there? Give an example of each
7. Explain these two analogs—
   A. Place is to geography what time is to history.
   B. A region is to a geographer what a personality type is to a psychiatrist or an era to an historian.
8. Why are maps, charts, tables, pictures and other graphics so important in the study of geography?
9. How are field studies used as tools for geographic inquiry and investigation?
10. What is toponymy? Explain why understanding toponymy reveals a great deal about what people do and value in a particular place and location.

11. Explain the various types of diffusion—expansion diffusion (including contagious diffusion, hierarchical diffusion and stimulus diffusion) and relocation diffusion (including migrant diffusion).
12. When studying movements of people, materials and ideas or information on Earth, there are three concepts which were discussed in class—Spatial Interaction, Regional Variation, and Spatial Distribution. Explain these three concepts, using examples if needed. Also explain how they are used to study the interaction of humans on Earth

NOTES

Definition—_____

_____

_____

Study of place—but much more than just "_____"

--"_____" places and things are the way they are

--"_____" their location means in the past, present, and future; and

--"_____" their location affects other places

Two (or Three) basic subdivisions

Physical Geography—_____.

Human Geography—_____;

How places are transformed by human activity.

Environmental Geography—is emerging as a 3rd subdivision because so many contemporary issues occur at the _____ of Physical and Human Geography.

One common thread—_____

--nearly all geographers are interested in the way places and things are _____, _____, and _____ on the surface of Earth.

There are various traditions, concepts, themes and standards in geography.

The question of ***"Where?"*** has long been a part of the development of Geography as a science. By the 18th century modern geography two opposing views emerged:

1. Our physical environment caused human behavior
   a. Endorsed by Alexander von Humbolt and Carl Ritter, German geographers.
   b. Urged human geographers to use scientific methods of inquiry to apply the laws from the natural sciences to understanding relationships between the physical environment and human actions.
   c. Concentrated on *how the physical environment* _____ *social development* (**environmental determinism**)
   d. Has evolved into the geographic approach emphasizing human-environment relationships known as **cultural ecology**
   e. Everything in the landscape is interrelated, but physical factors do not necessarily cause human activities.
   f. Modern geographers reject environmental determinism in favor of ***possibilism***.
   g. **Possibilism**: *the physical environment may* _____*some human actions but people have the ability to adjust to their environment. People can choose a course of action from many alternatives in the physical environment.*

The second school of thought developed during the 19th century in France. **Regional studies** was initiated by Paul Vidal de la Blanche and Jean Brunhes, and later adopted by some American geographers.

1. Rejected the concept that physical factors determine human actions—said everything is interrelated
2. Said *each place has its own distinctive landscape that results from a unique combination of social relationships and physical processes.*

In 1964, an article by William Pattison identified the 4 traditions of geography as:

1. An earth-science tradition
2. A culture-environment tradition (man-land)
3. A locational tradition (spatial)
4. An area-analysis tradition (area studies)

Then 5 five ways that geographers think about the world were proposed. They are

1. Thinking about space
2. Thinking about place
3. Thinking about regions
4. Thinking about scale
5. Thinking about connections

In the 1980's the Five Themes of Geography were developed by GENIP (Geography Education National Implementation Project)

1. _____ 4. _____
2. _____ 5. _____
3. _____

In 1994, a document was written called Geography for Life: The Geography National Standards 1994 and it presented what each American student should know and be able to do in geography by grades 4, 8, and 12. The eighteen standards were organized under six "essential elements." They represent the essentials and fundamental ideas of geography.

The geographically informed person knows and understands:

_____

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information.
2. How to use mental maps (a person's internalized picture of a part of Earth's surface) to organize information about people places, and environments.
3. How to analyze the spatial organization of people places, and environments on Earth's surface.

_____

4. The physical and human characteristics of places.
5. That people create regions to interpret Earth's complexity.
6. How culture and experience influence people's perceptions of places and regions.

_____

7. The physical processes that shape the patterns of Earth's surface.
8. The characteristics and distribution of ecosystems on Earth's surface.

_____

9. The characteristics, distribution and migration of human populations.
10. The characteristics, distribution and complexity of Earth's cultural mosaics.
11. The patterns and networks of economic interdependence.
12. The processes, patterns, and functions of human settlement.
13. How the forces of cooperation and conflict among people influence the division and control of Earth's surface.

14. How human actions modify the physical environment.
15. How physical systems affect human systems.
16. The changes that occur in the meaning, use, distribution, and importance of resources.

17. How to apply geography to interpret the past.
18. How to apply geography to interpret the present and plan for the future.

Although these organizational methods and frameworks are primarily use for K-12 grades we will be using some of these concepts throughout the year in order to organize the data from Human Geography.

Reading Assignment:

Read about the 5 concepts in the textbook (Chapter 1--Rubenstein)
Read about the history of Geography in the Handout on Carl Sauer

We will study the **five themes** in class.

A. Location--"Where"

Describing Locations

Using landmarks—i.e. Next to the school 

 Topological—i.e. Between the river and the forest

Distance/Direction—100 miles northwest of Houston 

 Address—1801 Harvey Mitchell Parkway South

Global Grid—at 30°N, 96°W 

 Arbitrary Map Grid—in sector 3B

1. _____--exact location—the address
   a. Geographic Grid—Latitude/Longitude
   b. Arbitrary Grid
2.
   a. How a place is related, or connected to other places
   b. The interdependence of places.
   c. Site—refers to the physical and cultural characteristics and attributes of the plac
   d. Situation—refers to the external relations of a locale.

B. Place

1. Physical Characteristics—_____

_____

_____

_____

_____

_____, etc.

2. Cultural Characteristics—_____

_____

_____

_____

_____, etc.

Power Point: ***Place*** **Assignment:** ***Sense of Place Activity***

C. Human-Environment Interaction

1. How people respond/relate to their environment
2. Explores the effects (+ and -) that occur when people change their environment
3. Not Environmental Determinism: Modern geographers reject **environmental determinism** in favor of ***possibilism***.

Possibilism: *the physical environment* _____ *but people have the ability to* _____ *their environment.*

People can choose a course of action from many alternatives in the physical environment.

4. _____: People change their lives to fit the land.
5. _____: People change the land to meet their needs.
6. _____: People depend on the natural resources.

D. Movement

1. Spatial Interaction
   a. *Definition*--movement of people, materials, and ideas or information across Earth.
   b. How?
      1) _____
      2) _____
   c. _____--spread of an idea or invention.

d. Two basic types of diffusion

1) _____—the transfer of ideas, behaviors, or articles from one place to another through the migration of those possessing the feature transported. They take their cultural traits with them. Once the people migrate those traits may continue, disappear, or change through time.

2) _____—the spread of ideas, behaviors, or articles through a culture area or from one culture to neighboring areas through contact and exchange of information

aa) Hierarchical diffusion—a form of diffusion in which the spread of an innovation can

_____

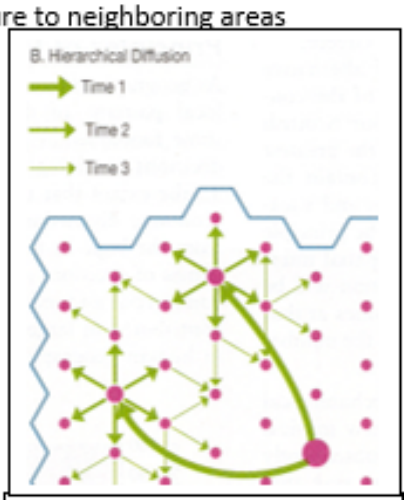
_____

_____

_____

Examples _____

_____



bb. Contagious diffusion—a form of diffusion that depends on _____

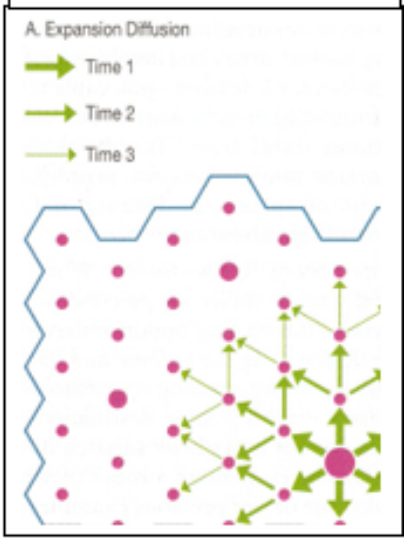
_____

_____.

The process of dispersion is centrifugal, strongly influenced by

_____, and dependent on _____

between actual and potential adopters of the innovation.



cc. Stimulus diffusion—if the innovation or idea does _____ spread, but local experimentation and eventual changes in ways of doing things occur _____ between cultures it is considered diffusion.

2. Regional Variation [Spatial Differentiation]

a. *Definition*--not all places are centrally located or are easily accessible.

b. People, materials and ideas are spread differently across space.

c. Distance Decay—_____

_____

d. Cultural and Physical Barriers—_____

_____

_____

e. _____—alternative destinations—some areas can be reached more quickly, more cheaply, and/or easier so ideas and people spread differently.

3. Spatial Distribution

a. Definition--the spread of people, elements or characteristics

b. Three aspects/parts:

1) *Density*--_____.

(How much of something is found in a given area?)

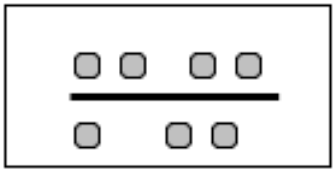
2) *Dispersion/Concentration*--_____.

(Where is it found?)

3) *Pattern*--_____

(How is it spread?) [design rather than spacing]

aa) Linear_____

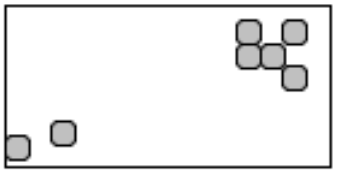


_____

_____

_____

bb) Centralized or Clustered—_____

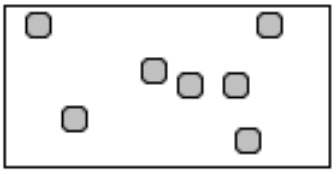


_____

_____

_____

cc) Random—_____



_____

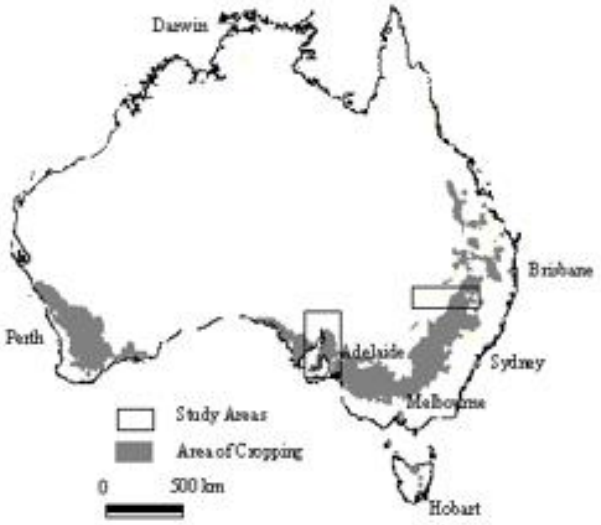
_____

_____

E. Regions

1. *Definition*: _____
2. Why?
3. Four types:

   a. _____ region—a type of region marked by a certain degree of homogeneity in one or more phenomena; also called a uniform region or homogeneous region. i.e. Canada, Texas, the Wheat Belt (you can actually calculate how many acres of land are used to grow wheat—you can "see" the region), the Corn Belt



   b. _____ region—a region defined by the particular set of activities or interactions that occur within it, also known as a nodal region [an area organized around a node or focal point] i.e. the Silicon Valley, where *The Eagle* is distributed

c. _____ or _____region—a region that only exits as a conceptualization of an idea and not as a physically demarcated entity. For example, in the United States, "the South" or "the Mid-Atlantic region" are perceptual regions.

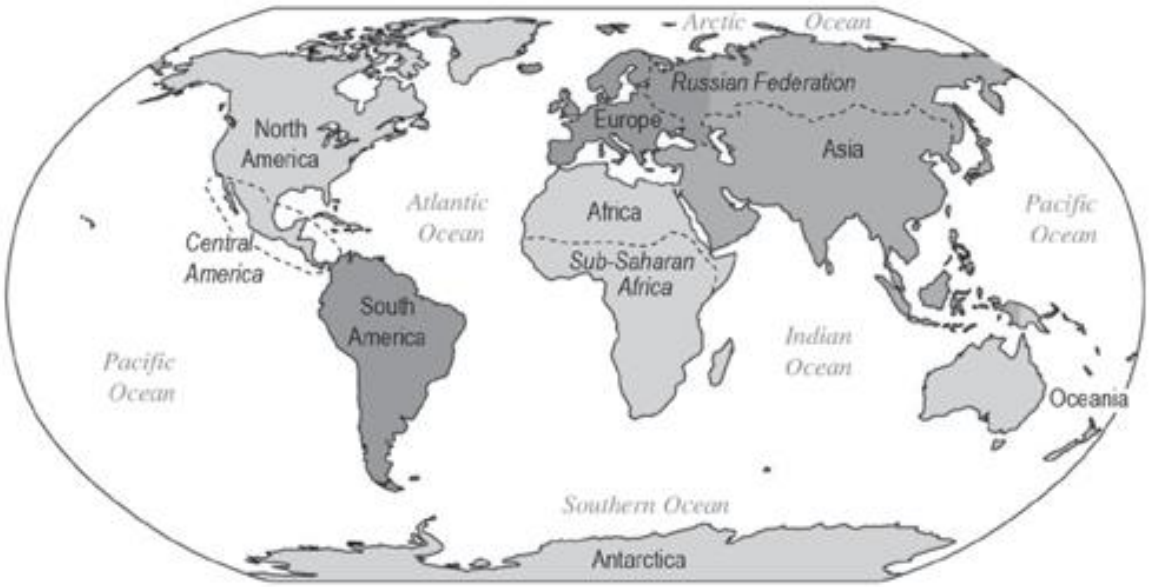
5. Study the character of a region and how a region changes over time.

World Regions Maps

The following maps present a big-picture view of world regions and then a closer look. Many of the regions overlap or have transitional zones between them.

Although some regions are based on culture, others are defined by physiographic (i.e., physical geography) features. Not all geographers agree on how each region is defined. One geographer, for example, may place Armenia and Azerbaijan in the Middle East, whereas another may place them in Central Asia, as both countries were formerly parts of the Soviet Union. Likewise, some geographers use the term Middle East, whereas others use Southwest Asia to describe the same region.

AP Human Geography: World Regions — A Big Picture View



From page 16, [Course Description: Human Geography 2015, The College Board, Advanced Placement Program.

TOOLS AND METHODS USED TO STUDY GEOGRAPHY

A. Maps

1. Globe--_____

2. Map--_____

[cartography is the science of map making]

a. _____ Maps--visual or verbal maps

b. _____ Maps

1) _____ Maps--gives general information about a place (location, size, distance, political or cultural features, physical features, etc.)

2) _____Maps--show more specific information, often on a single theme or topic. (Population, Economic Maps, Climates, Religions, Languages, etc.)

B. Main Concepts of Standard Maps

"Mental maps should have a TOAD." *and some maps need* s *or* IGs!"

"Standard maps need TOADS *or* TODALS, TODALSIGs

T=Title: What, where and when

O=Orientation: Cardinal and Intermediate Directions

D=Date: When was the map made?

A=Author: Who made the map?

L=Legend: What do the symbols mean?

S=Scale: What is the map distance?

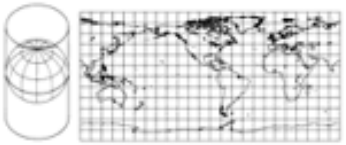
I=Index: Map address of a place.

G=Grid: Locates places on the map.

s=Source: Where is the information from?

C. Additional Information

1. Projection--_____

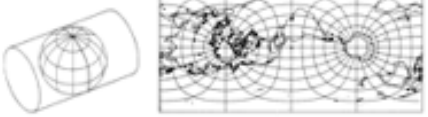


Regular "Mercator"

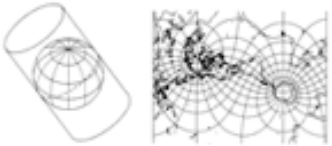
a. Three basic kinds of projections

1) Cylindrical Projection--_____

_____

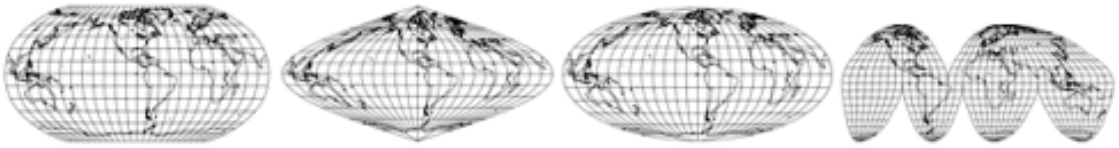


Transverse "Transverse Mercator"



Oblique "Oblique Mercator"

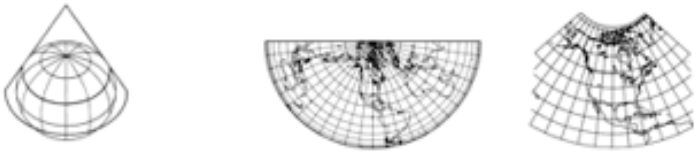
Pseudocylindrical (or False Cylindrical) projections the longitudinal meridians are curved.



Robinson Sinusoidal Mollweide Goode Homolosine

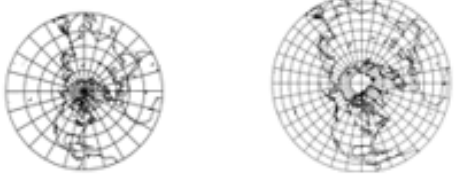
2) Conic Projection--_____

—usually just a portion of the earth.



Lambert Equal-Area Albers Equal-Area

3) Planar or Zenithal Projection--_____.



Stereographic Lambert Azimuthal Equal-Area

b. Different Projections produce different types of maps--Four basic types

1) Conformal--_____ are correct. [distance, direction, and size are distorted]

2) Equivalent or Equal-Area--_____ are correct [shapes, distances, and directions are distorted]

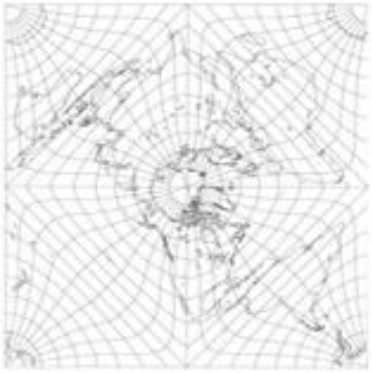
3) Equidistance--_____ are correct. [shapes, size, and directions are distorted]

4) Azimuthal--_____ are correct. [shapes, size, and distances are distorted]

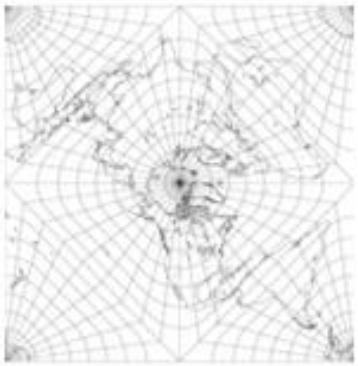
Miscellaneous Projections

Armadillo Projection

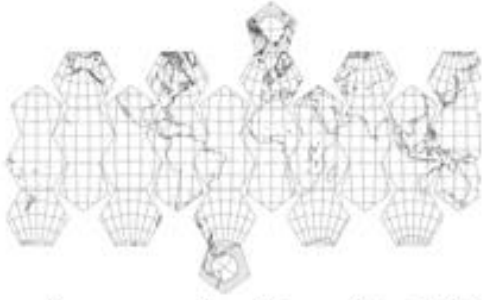
Octant World Map; Azimuthal; Leonardo da Vinci, ca. 1514



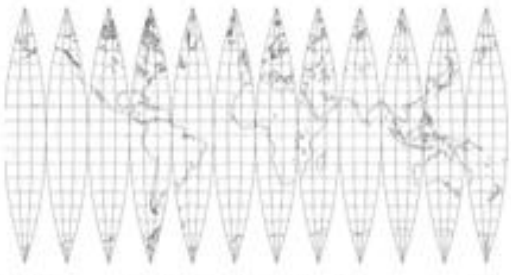
Quincuncial Equal-Area; Miscellaneous; Gringorten; 1972



Maurer No. 235; (Quincuncial); Polyconic; Zonal Equal-Area; Hans Maurer



Equal-area Truncated Icosahedron; Polyhedral Globe;



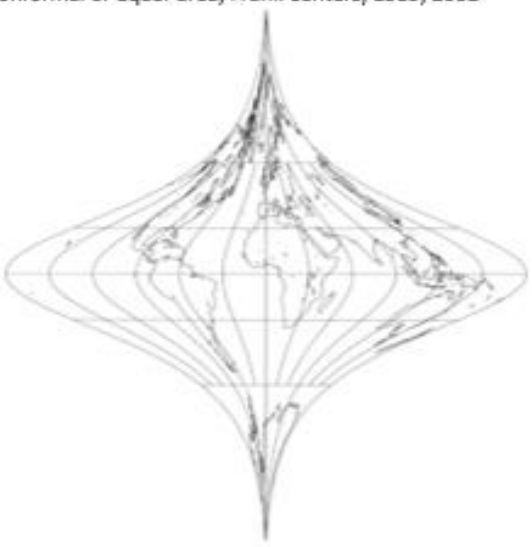
Waldseemuller's World Map; (Approximation, Nicolosi Globular in 12 Gores); Martin Waldseemuller, 1507

Conformal Tetrahedric projection; Laurence Patrick Lee, 1965

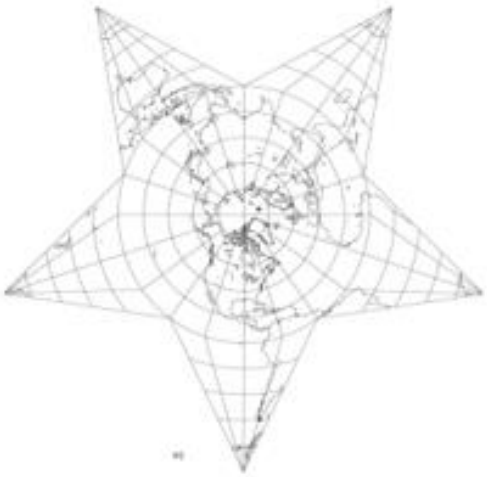
Schwarz Conformal projection; (World in a Pentagon); Miscellaneous; Conformal; H. A. Schwarz, 1869

Low-error Polyconic; (Non-constrained optimization); Neither Conformal or Equal-area; Frank Canters; 1989, 2002

Bonne projection; Pseudoconic; Equal-area; Modified Werner projection; Rigobert Bonne, 1752



Tangent Series #2; Pseudocylindrical; Equal-area; Felix Webster McBryde and Paul D. Thomas, 1949



Berghaus Star; Azimuthal; Neither Conformal or Equal-area; (Northern Hemisphere is Azimuthal Equidistant projection) Heinrich Berghaus, 1879

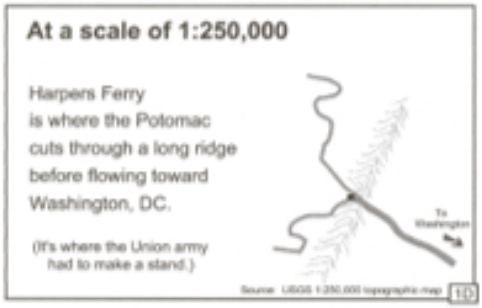
3. Scale—relationship between _____ in cartographic terms —In general terms, it refers to the size of the area studied
   a. Three types of cartographic scales
      1) _____scale 0 (miles) 1
      2) _____ scale 1inch = 1 mile
      3) _____ scale 1: 63,360

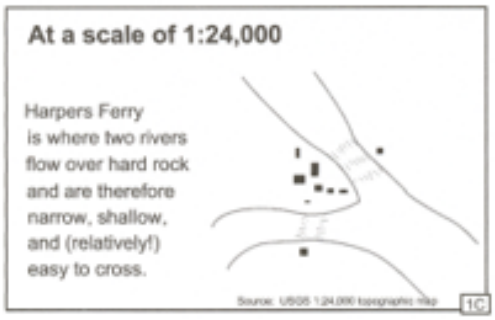
   b. _____ scale maps (shows a large area with little local detail—nation map) [less than 1:100,000] vs.

      _____ scale maps (shows a smaller area in much more detail—city map) [greater than l:l00,000]

      1) _____ Scale—shows less detail— larger area

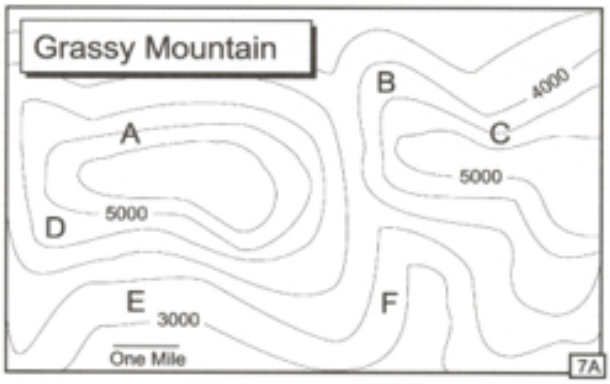
      2) _____ Scale—shows more detail such as buildings are located and the shallow areas —smaller area



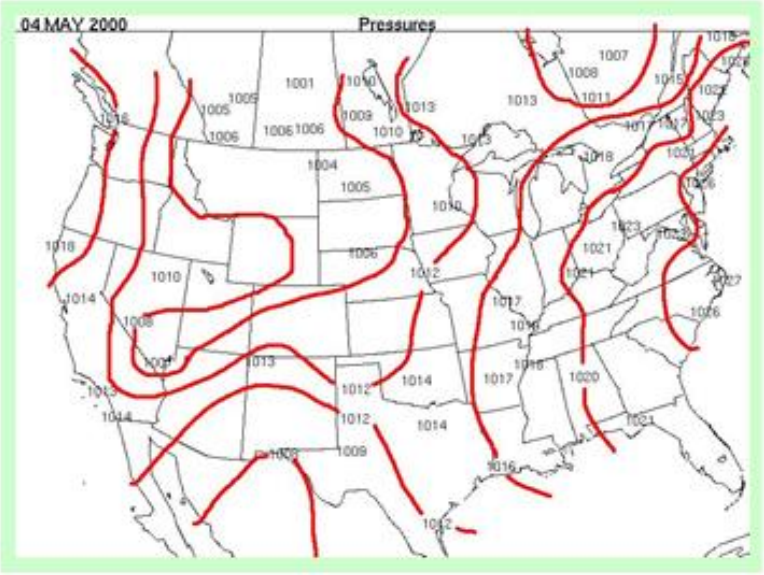


4. Specialized Maps
   a. Thematic Maps
      1) Isopleth Maps--type of map that uses isolines to _____ points (or places) of _____ value

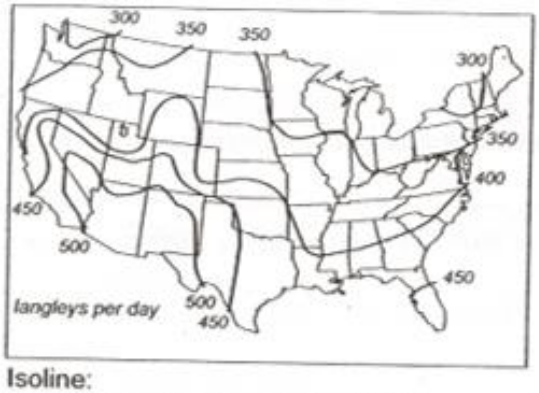
         a) Contour Maps--lines connect points with the same _____



b) Barometric Pressure Maps--Isobars connect places where the_____ are the same

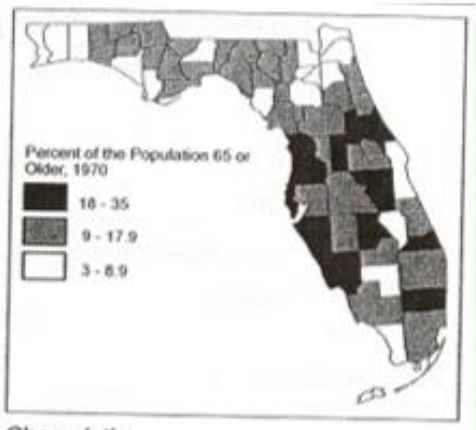


c) Temperature Maps—Isotherms connect places with the same _____



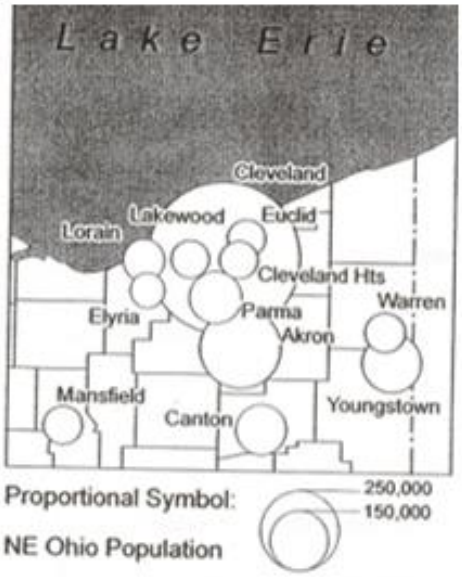
Isoline:
Average Daily Solar Radiation

2) Choropleth Maps



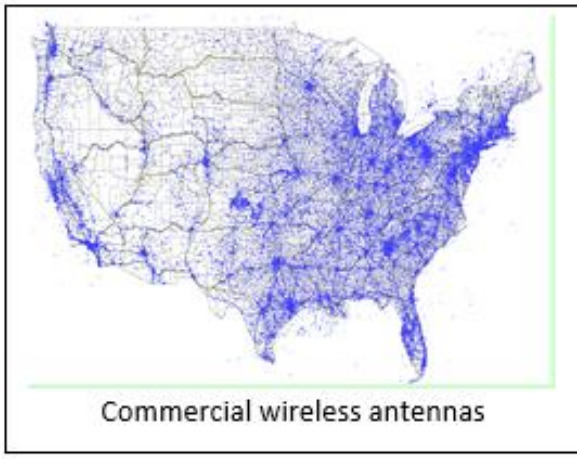
Choropleth:
Florida Senior Citizens

3) Proportional Symbol Maps



4) Dot Maps

Dot:
Wisconsin Acreage in Potatoes



Commercial wireless antennas

b. General Information Maps

1) Topographic Maps.

2) Others

c. Contemporary Mapping

1) Remote Sensing—the accusation of data about Earth's surface from a satellite or other long distance methods

2) GIS—_____ _____ is a high performance computer system that processes geographic data.

3) GPS_____ takes signals from a serious of satellites to pinpoint the current location of a vehicle.

e. Etc.

B. Data Collection

1. Field Work
   a. Observing
   b. Gathering data
   c. Interviewing people
   d. etc.

2. Records
   a. Books/Histories/Library Research
   b. Census Records (official counts) and Summaries
   c. Land and Tax Records
   d. Air Photos
   e. etc.

C. Statistical Analysis

D. Use of Models

E. Etc.

****

"Locomotion should be slow, the slower the better, and should be often interrupted by leisurely halts to sit on vantage points and stop at question marks."

[John Leighly, ed. Land and Life. A Selection From the Writings of Carl Ortwin Sauer. Berkeley and Los Angeles: University of California Press, 1963.]

This comment was made by Carl O. Sauer, one of the major figures in human geography in the United States. What was Sauer's conception of geography? How did that differ from previous scholars' views such as Alexander von Humbolt, Carl Ritter, and Friedrich Ratzel? How does contemporary geography differ from Sauer's concept of human geography?

1) Sauer's concept
   He was interested in how humans modify physical landscapes over time. He rejected the idea of environmental determinism for possibilism (human activity is determined not by physical environments, but by choices humans make). He used the term "landscape" or "cultural landscape" in preference to "region.

2) Previous concepts
   Historically geography was seen as a descriptive regional science. Until the late 18th century it was primarily mapping and description. For the first part of the 19th century academic disciplines formally emerged at universities and regional descriptions were placed in a larger conceptual context as encouraged by Vareninus as early as 1650.

   Humbolt and Ritter dominated the first part of the 19th century. Humbolt wanted to investigate the interaction of the forces of nature (including humans). He tried to account for how things are related. Ritter also moved from description alone to description and laws. Humbolt and Ritter are credited for three reoccurring themes—

   (1) the study of humans and land,
   (2) the focus on regions, and
   (3) the concerns of spatial analysis (the use of general statements to aid the understanding of specific facts).

   They were the first in geography to combine regional descriptions and concept formulation.

   By the end of the 19th century departments of geography began to appear and an emphasis on the physical environment continued. Physical environments were described first and human activities related to the physical environment came second.

   Ratzel is sometimes regarded as the founder of human geography since his second book focused on humans using the earth, even though he is best known for another concept. Ratzel is most associated with the concept of environmental determinism. He wrote about the influence of physical geography on humans in his first book. This theme would last until the beginning of the 20th century when it lost favor to possibilism.

   Sauer in the US, Videl in France, and Schluter in Germany began to focus on the landscape (an analysis of humans and the land) in the early 1900's. This became one of the major themes of the 20th century in geography. Regional geography (regional studies) was a

second theme. And a third emphasis that developed was the concept of spatial analysis. During the 1960's a quantitative revolution occurred and influenced both the landscape and the regional approaches to geography.

3) Today human geography, even though connected to its history, has some new components. Specifically:
   A. Human geography is being distinguished from physical geography and being seen as a separate component of geography.
   B. There has been a revitalized emphasis on regional geography.
   C. There has been a revitalization of landscape geography.
   D. Spatial analysis is an ongoing component.
   E. There is an increase in applied matters.
   F. There is an increasing technical content.

TEKS Unit: Physical Geography and the Environment

Even though physical geography is not directly on the AP Human Geography College Board Exam, it is still very important that you have some basic knowledge in this area. To be able to understand what is happening in the world and the interaction between humans and the environment you need to know something about Earth. This unit will primarily examine the geomorphology, climate and resources of Earth. We will discuss some of the main concepts and define some of the basic vocabulary used in physical geography.

GOALS

The goals for this section of the course are to:

- develop an understanding of the physical characteristics of place—geomorphology, climate and resources
- describe key concepts related to physical geography
- understand how humans interact with {adapt to), change (modify), and depend on their environment
- understand the positive and negative influences on the environment
- understand how humans are trying to achieve sustainability.
- become familiar with some basic vocabulary

BASIC VOCABULARY AND CONCEPTS

GEOMORPHOLOGY
Slope
Relief
Elevation
Tectonic Forces
--Diastrophism
--Vulcanism
Gradational Forces
--Erosion
--Deposition
Fault

CLIMATE
Weather
Climate
Rotation
Revolution
Solstice
Equinox
Climate Elements
--Temperature
--Precipitation
--Air Pressure & Wind
Climate Controls
--Latitude (as a control)
--Continentality
--Elevation
--Atmospheric
Circulation
--Ocean Circulation
--Mountain Barriers
Orographic Precipitation
Low Pressure Cell
High Pressure Cell
Hadley Cell
Coriolis Effect
Windward
Leeward
Climographs

RESOURCES
Renewable
Nonrenewable
Recyclable
Soil
Organic Matter/Humus
Soil Types/Zones
Vegetation
Natural Vegetation
--Forest
--Savanna
--Grassland
--Desert
--Tundra
Prairie
Steppe
Food Crops
Industrial Crops
Minerals
Metals
Nonmetallic minerals
Atmosphere
Greenhouse Effect

HUMAN IMPACT ON THE ENVIRONMENT

Acid deposition
Acid precipitation (Acid rain)
Active Solar energy systems
Air pollution
Animate power
Aquifer
Biochemical oxygen demand (BOD)
Biodiversity
Biomass fuel
Breeder reactor
Chlorofluorocarbon (CFC)
Deforestation
Desertification
Ecosystem
Environmental stress
Fission
Fossil Fuel
Fusion
Geothermal energy
Global Environment Facility (GEF)
Green revolution
Greenhouse effect
Hydroelectric power
Inanimate power
Montreal Protocol
Nonrenewable energy
Ozone
Passive solar energy systems
Photochemical smog
Photovoltaic cell
Pollution
Potential reserve
Proven reserve
Radioactive waste
Renewable energy
Resource
Sanitary landfill
Soil Erosion
Solid Waste
Stratosphere
Sustainable agriculture
Sustainable development
Toxic Waste
Troposphere
United Nations Conference on Environment and Development (UNCED)
United Nations Conference on Human Environment
Vienna Convention for the Protection of the Ozone Layer

STUDY QUESTIONS

1. How can geography help us understand human-environmental interactions?
2. How can landscape analysis help us understand human-environment relationships?
3. How does population density impact the environment?
4. How does population density impact natural resources?
5. What is carrying capacity?
6. Give an example of a push and a pull environmental factor
7. How does sustainable development address natural resource depletion?
8. How does sustainable development address mass consumption?
9. How does sustainable development address the costs and effects of pollution?
10. How does sustainable development address the impact of climate change?
11. How does sustainable development address human issues such as human health, well-being, and social and economic equity?
12. What are some examples of sustainable development within urban areas?
13. What land use and environmental problems are associated with the growth and decline of urban communities?
14. Why are energy resources important for development?
15. Where does industry cause pollution? – global, regional, local scale
    Air pollution, Solid Waste Pollution, and Water Pollution

Throughout the textbook there are **"Sustainability And Inequality In Our Global Village"** features in each chapter that discuss current, social, economic, and environmental topics. Be sure to look at this information.

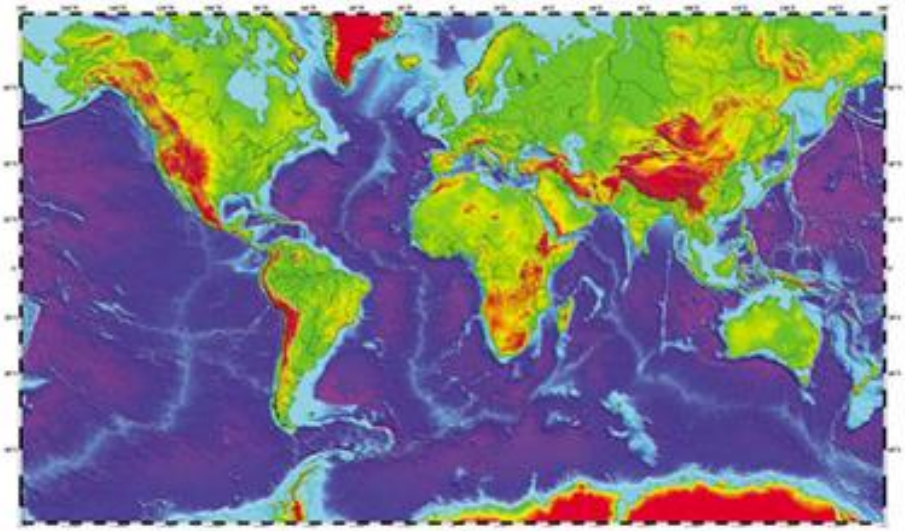
NOTES

Video—This Blue Planet

PHYSICAL GEOGRAPHY—General Information

By understanding the environment
we can understand why one place is different or the same as another.

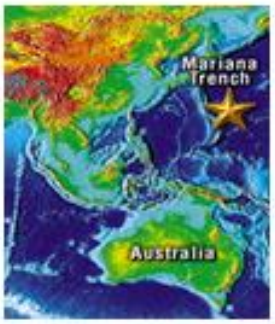
I. About _____ of the surface of Earth is water.



A. Oceans—the largest bodies of water—are salty
Rank the oceans by size, what percentage of Earth is covered by each, and what is its deepest point.

Rank	Percentage	Deepest Point
Atlantic		
Arctic		
Indian		
Pacific		

The deepest known point on Earth is at the bottom of the Mariana Trench, a depression in the floor of the western Pacific Ocean, just east of the Mariana Islands.



The Mariana Trench is 1,554 miles long and averages 44 miles wide. Within it, about 210 miles southwest of Guam, lies the deepest known point on Earth. Named the "Challenger Deep" for the British survey ship *Challenger II* that located it in 1951, this underwater gorge plunges to a depth of nearly 7 miles! It is deeper than Mt. Everest is tall. [29,035 feet.—app. 5 ½ miles]

In 1960, Jacques Piccard and Navy Lt. Donald Walsh made history when they descended in the U.S. Navy bathyscaphe *Trieste* to the bottom of the Mariana Trench. Here, the pressure from the weight of the vast ocean above is over 8 tons per square inch, or the equivalent of an average-sized woman holding 48 jumbo jets!

In 1996, the remotely operated vehicle *Kaiko*, operated by the Japan Marine Science and Technology Center, visited the Challenger Deep and recorded several marine organisms, including shrimp-like amphipods, a scale worm, a sea cucumber, and various microbes.

University of Delaware, College of Marine Studies, October 2001.

B. Sea—a large body of salt water more or less surrounded by land

1. What is the largest sea?_____
2. What is the second largest?_____

C. Lakes—bodies of fresh water surround by land.

1. Which continent has more lakes than any other continent? _____

   Why?_____
2. What is the largest body of fresh water (lake) in the world? _____
3. What is the deepest? _____
4. Are the Great Salt Lake, the Caspian Sea and the Dead Sea seas or lakes? _____

   _____

D. Streams—

_____ —

range in size from creeks or brooks to large rivers—drain water from land areas

[_____—smaller streams flowing into larger streams;

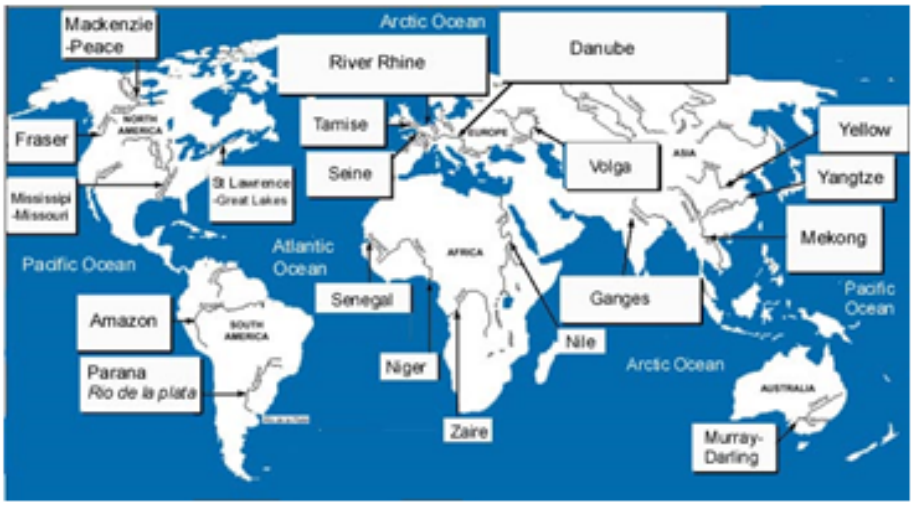
_____—where the stream empties into a larger body of water.

1. What is the longest river in the world? _____

   Which direction does it flow? _____
2. What is the second longest river (which is also the largest in terms of water flow)?

   _____Which direction does it flow? _____

   _____ of global runoff—the renewable water source that constitutes fresh water supply—comes from the Amazon Basin.



E. Groundwater—fresh water is stored under the surface of Earth in aquifers.

II. Freshwater vs. Saltwater

A. Only about _____ of Earth's water is fresh water. (Most of that is frozen.)

B. We can actually use less than _____.

C. _____ accounts for 70% of direct water consumption

III. About _____% of the surface of Earth is land.

A. Continents—largest masses of land

1. What is the rank of each continent in terms of size and population?

	Rank in Size	Rank in Population
a. Africa		
b. Antarctica		
c. Asia		
d. Australia		
e. Europe		
f. North America		
g. South America		

2. Which continent has a population of zero (0)? _____
3. Which continent is the most densely settled? _____

B. Islands—land surround by water

1. What is the largest island? _____
2. What is the second largest island? _____
3. Why isn't Australia considered an island? _____

GEOMORPHOLOGY

"Geo"--_____ *"morph"*--_____ *"ology"*--_____

I. Definition
   A. _____.
   B. Two parts:
      1. Form--_____
      2. Structure--_____.

II. Landforms--the natural shape of the land-- mountains (mts.), mt. ranges, plains, hills, plateaus, etc.
(We use these terms loosely depending on where we live and our experiences.)
   A. Geographers use slope, relief and elevation to define landforms

      1. Slope--_____.

Gradient--steepness

2. Relief--_____.

Highest point

Lowest point

3. Elevation--_____

Height above sea level

sea level

B. Using slope, relief, and elevation we can define the 4 basic kinds of landforms-- Mts., Plains, Hills, and Plateaus

IV. Landforms

A. Tectonic Landforms

1. Fault Landforms [a *fault* is _____.]

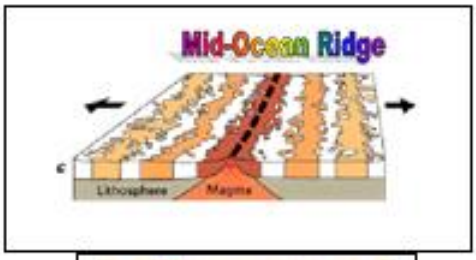
Two basic movements

a. Compressional

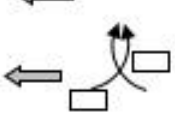
1) folding

2) thickening

3) thrust faulting

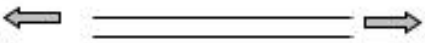


b. Tensional

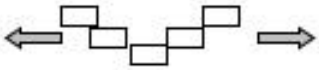


1) Rifting

2) Thinning



3) Down Dropping (Horst/Graben)



[You get different landforms depending on how fast, how long, how much tension, etc.; but basically you get mountains and valleys.]

2. Volcanic Landforms

a. Volcanoes

III. Formation of Landforms

A. Two Forces

1. Tectonic Forces—_____

Two processes

a. Diastrophism--_____

b. Vulcanism—_____

FOR THOUGHT AND DISCUSSION: How is the world different than it was in the days of Pangaea? What difference might we see today if the supercontinent had not broken up as it has?

2. Gradational Forces--_____

Two processes

a. _____ b. _____

Agents causing erosion and deposition

1) _____ 2) _____

2) _____ 3) _____

b. Calderas

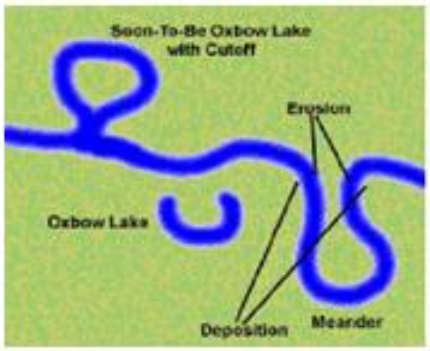
c. Cinder Cones

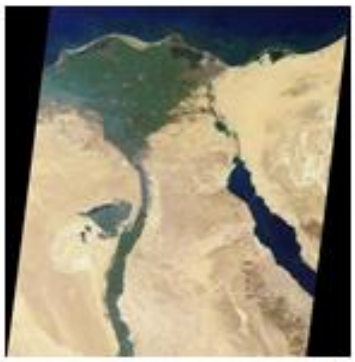
FOR THOUGHT AND DISCUSSION:

Do we live in a region of seismic activity (earthquakes) or volcanoes? What special problems do these events create?

. Gradational Landforms

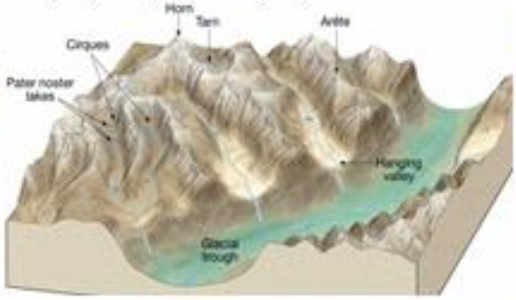
1. Made by Running Water
   a. Valleys
   b. Canyons
   c. Badlands
   d. Floodplain
   e. Oxbow Lakes
   f. Levees
   g. Deltas
   h. etc.





2. Made by Wind
   a. Dunes
   b. Loess


3. Made by Glaciers
   a. Cirque
   b. Arete
   c. Lakes--1) Tarns; 2) Finger Lakes; 3) Pater Noster Lakes
   d. Horn
   e. Glacial troughs
   f. Lateral Moraine
   g. End Moraine
   h. Fjord
   i. etc.

4. Made by Waves and Currents
   a. Beaches
   b. Sea Caves & Crevices
   c. Barrier Islands
   d. Lagoon
   e. Reefs
   f. etc.


FOR THOUGHT AND DISCUSSION:

Review a map of the world physical regions. Based on the map, what type of region do we live in? How similar is the physical terrain of our region to the description from the map? How is it different? What might explain any differences?

CLIMATE

I. Definitions

A. Weather--_____

B. Climate--_____

Before we can study about weather and climate we need to know a little about Earth movements and Earth/Sun relations.

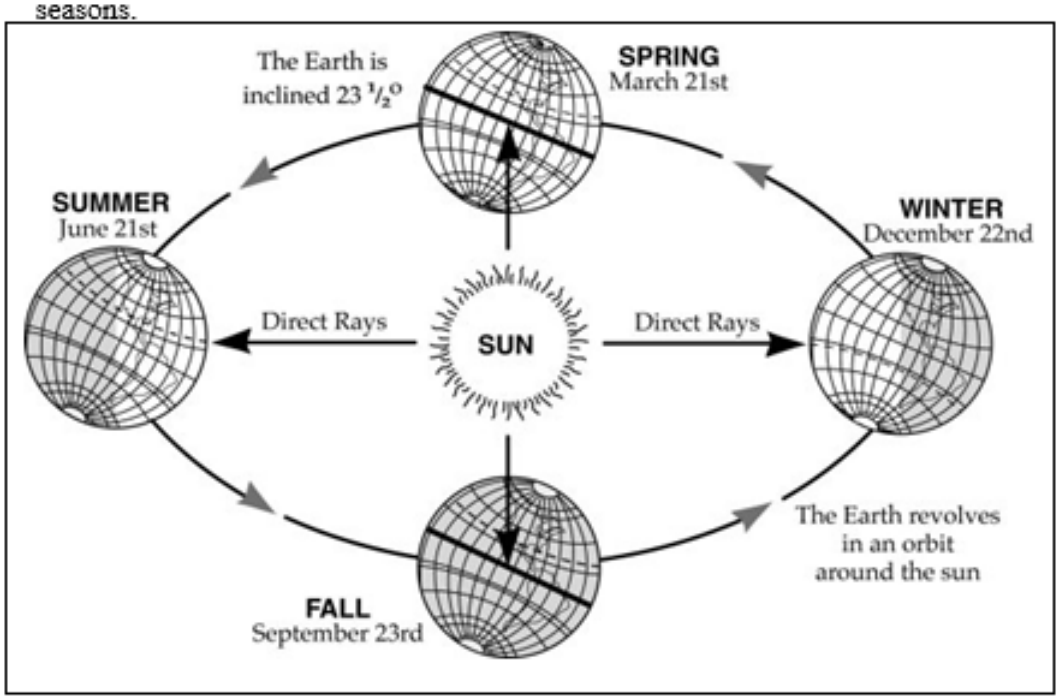
II. Earth Movements & Earth/Sun Relations

A. _____

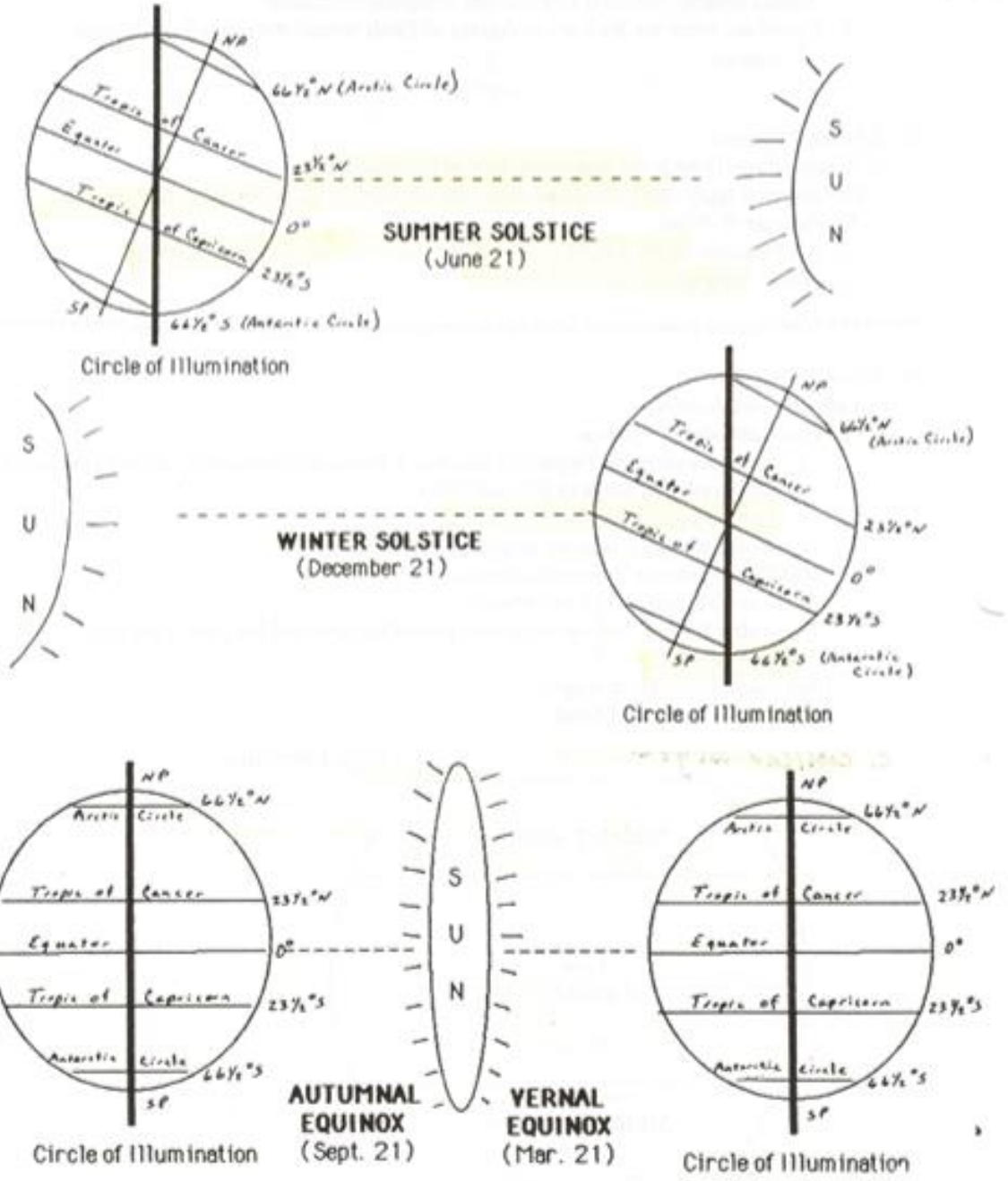
1. The earth rotates on its axis.
2. It takes 24 hours to make one complete rotation.
3. Therefore, when we look at rotation we can talk about day and night and time zones.

B. _____

1. The earth revolves around the sun.
2. It takes approx. 365 days to make one complete revolution.
3. Therefore, when we look at revolutions of Earth around the sun we can explain seasons.



EARTH/SUN RELATIONS



III. Climate Elements

A. Temperature (temp.)--_____

B. Precipitation (ppt)--_____

C. Air Pressure & Wind

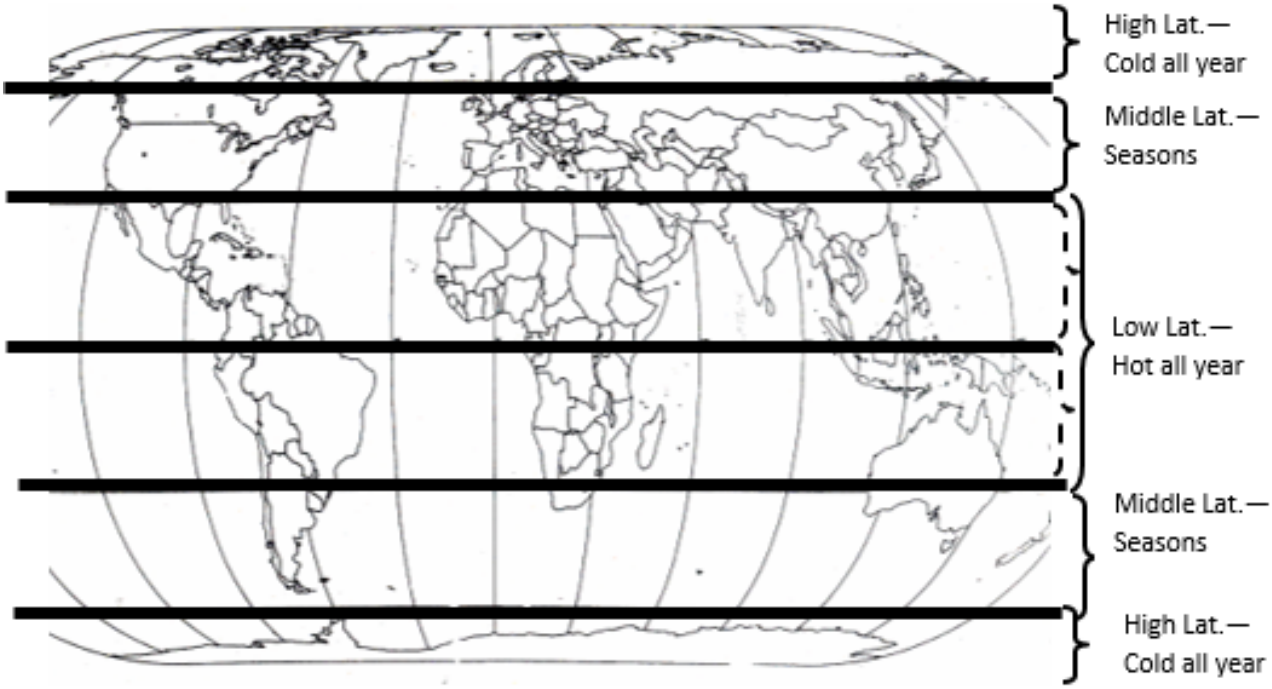
1. Air Pressure--_____

2. Wind--_____.

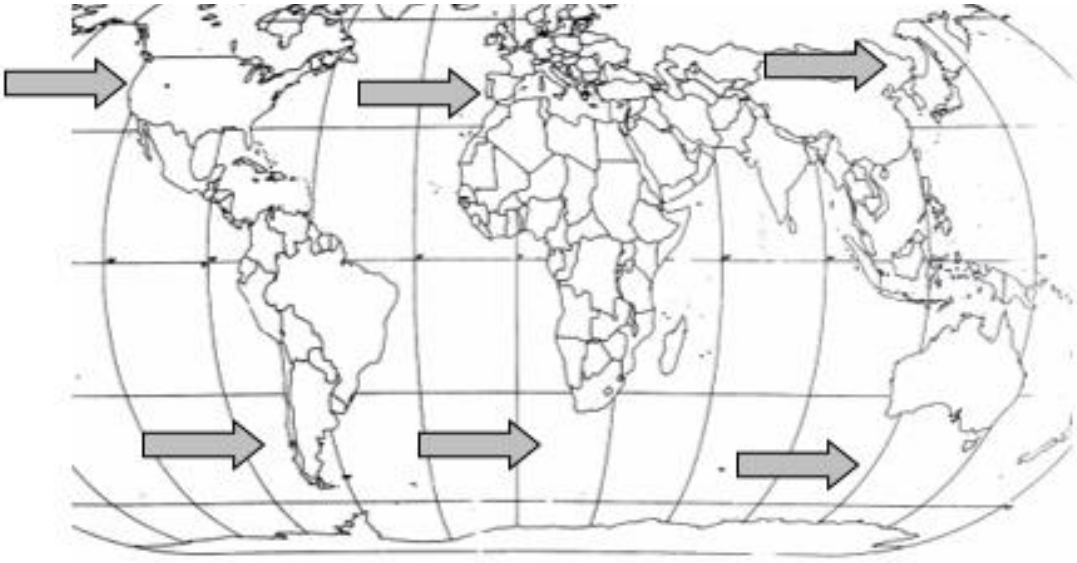
*********The climate controls act upon the elements to produce different climates. **********

IV. Climate Controls

A. Latitude
1. Low Latitudes or Tropics
   a. Area between the Tropic of Cancer and Tropic of Capricorn (it actually extends a little north and south to 30N and 30S).
   b. _____.
   c. Where the sun's rays are perpendicular
2. Middle Latitudes or Temperate Region
   a. 30 to 60 North and 30 to 60 South
   b. Neither hot nor cold--will get cold part of the year and hot part of the year.
   c. _____
3. High Latitudes or Polar Regions
   a. 60 to 90 North and South
   b. The sun is never directly overhead and with the times of darkness it gets very cold.
   c. _____



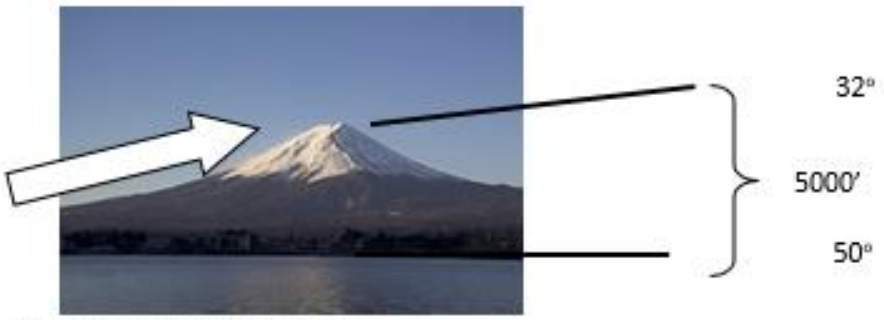
B. Continentality
1. In general, large land masses will have greater changes in temp.
2. Land will get hotter and colder depending on the temp. of the air.
3. Large bodies of water stay relatively the same temp. all year.
4. Therefore, if wind crosses over _____to get to a place it will stay _____
5. If it crosses over _____there will be _____.



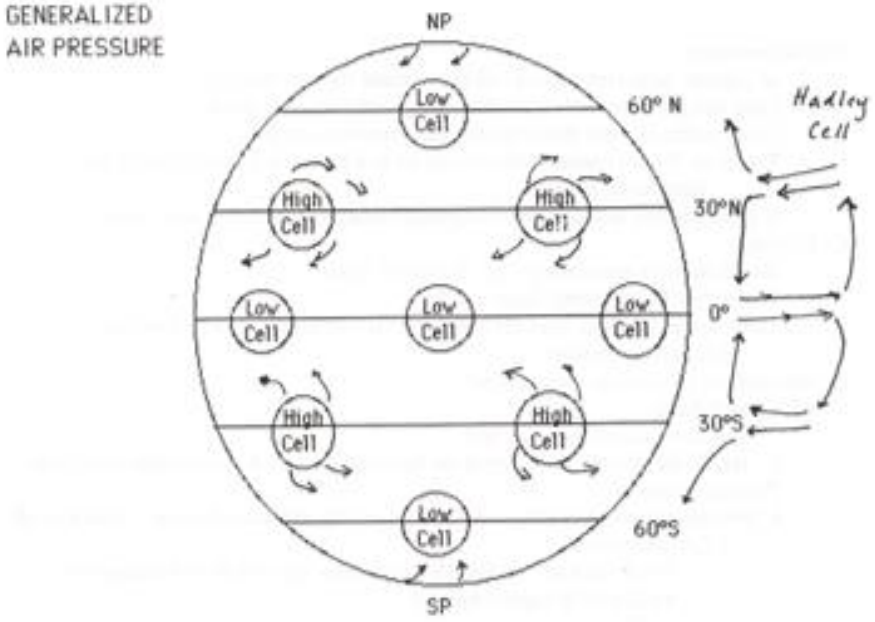
C. Elevation

1. The higher up a mountain you go--the cooler it gets.
2. For every 1000' the temp. drops 3.6 ^{0}F.
3. Therefore, in highland areas the temp. will _____

_____



C. Atmospheric Circulation



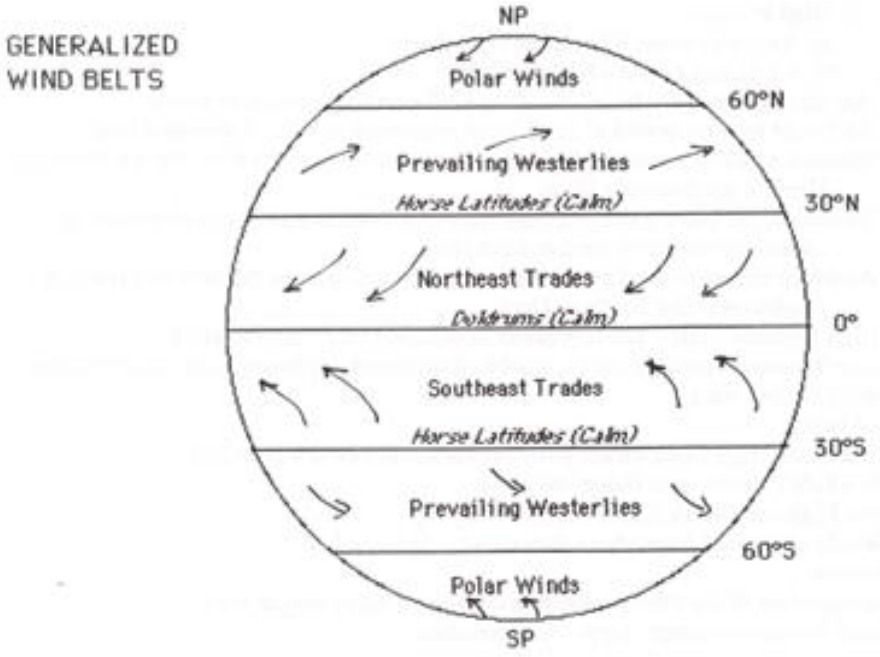
1. General Facts
   a. The Low Lat. receive more heat.
   b. Heat is transmitted to the higher lat. by ocean currents & atmospheric circulation.
2. Pressure Systems
   a. Because of uneven heating, areas of high and low pressures develop.—**Hadley Cell**
      1) Low Pressure
         a) Where the earth is relatively hot the atmosphere is heated causing the surface air to expand and rise.
         b) i.e. Heated air rises--expands and is less dense--_____Pressure.
      2) High Pressure
         a) As the air cools it becomes more dense.
         b) Air begins to sink--_____Pressure
   b. Air moves from a_____to a_____ along the surface of Earth.
   c. As the air moves parallel to Earth wind systems develop. — **Coreolis Effect**
   d. Because of Earth's rotation the winds are deflected to the left in both the Northern Hem. & the Southern Hem.
   e. Therefore, air moving out of a High Cell in the NH. is _____

      & _____in the SH.
   f. As the air moves into a Low Cell it is _____ in the NH

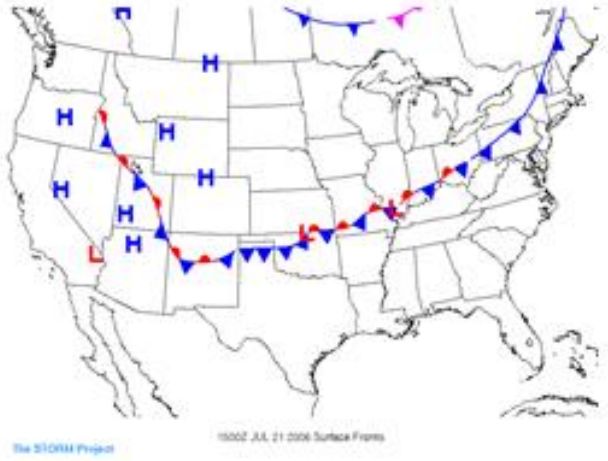
      & _____ in the SH.
   g. High Pressure Cells – _____

      Low Pressure--_____.
      (hurricanes, typhoons, cyclones, tornadoes, willy willies, etc.)

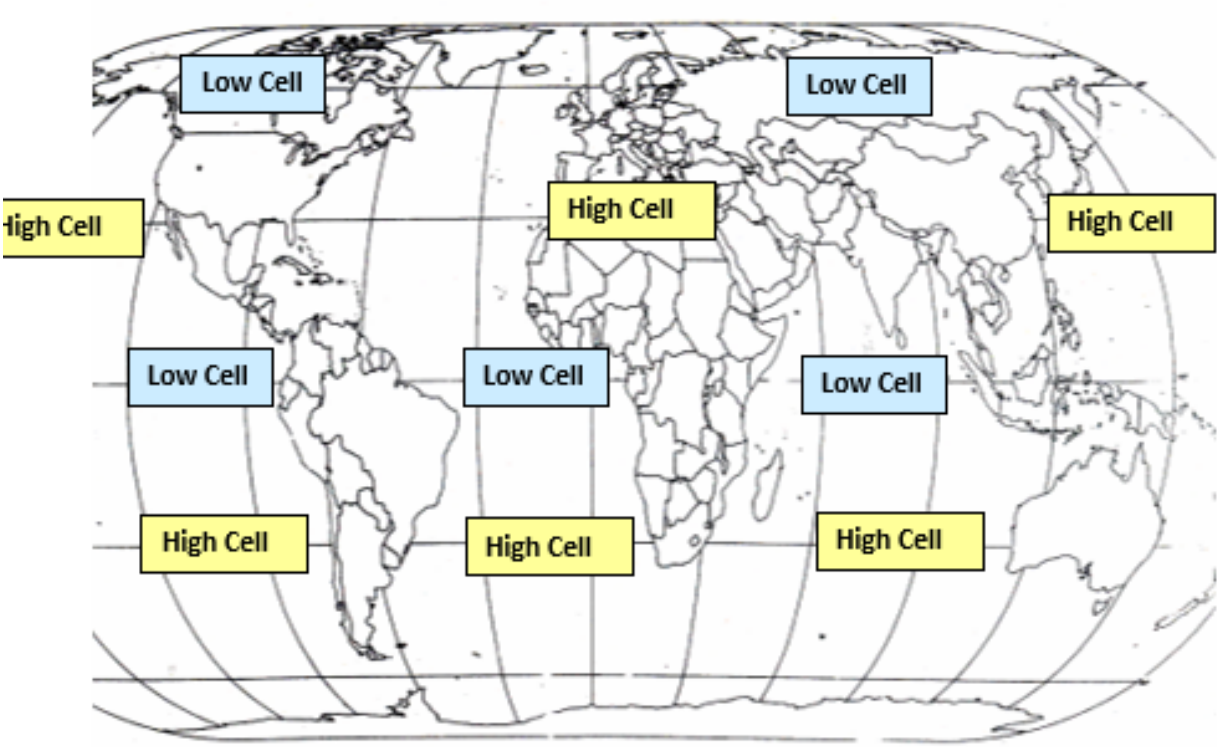
3. Wind Belts
   a. Out of the High Cells we get _____ as the air moves to a Low Cell.
   b. In a Low cell the air is rising--_____.
   c. In a High cell the air is sinking--_____.
   d. Winds are named _____



4. Air Masses
   a. Independent of the wind systems, masses of air move into an area.
   b. Each has its own temp. & ppt. characteristics.
      1) Warm Masses, Cold Fronts, etc.
      2) Marine vs. Continental Air Masses.
   c. *Fronts* are places where a mass of warm air meets a mass of cold air. When they meet--clouds and ppts. occur. Usually clear afterwards.



High Cell—_____ Low Cell—_____



FOR THOUGHT AND DISCUSSION:

Where are the deserts of the world?

What is it like along the equator?

Why isn't there a desert in the southeastern area of the United State? China?

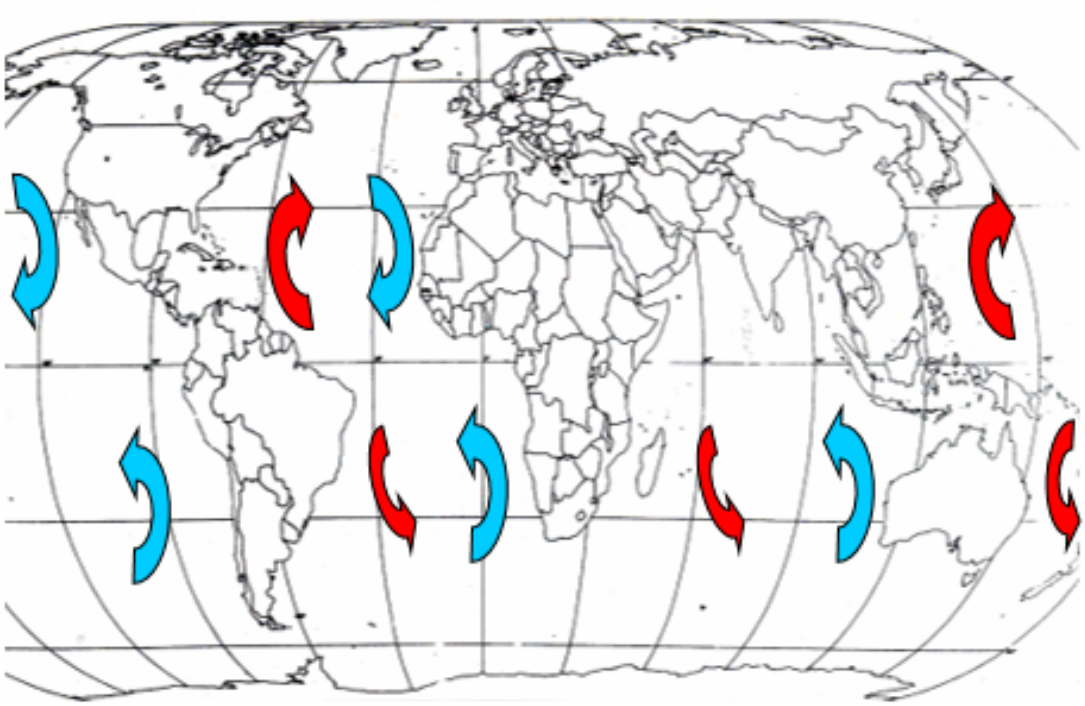
E. Ocean Circulation

1. Ocean currents help move the heat from the equator to the poles.
2. Ocean Currents are _____ in the N. hemisphere and _____ ___ in the S. hemisphere.

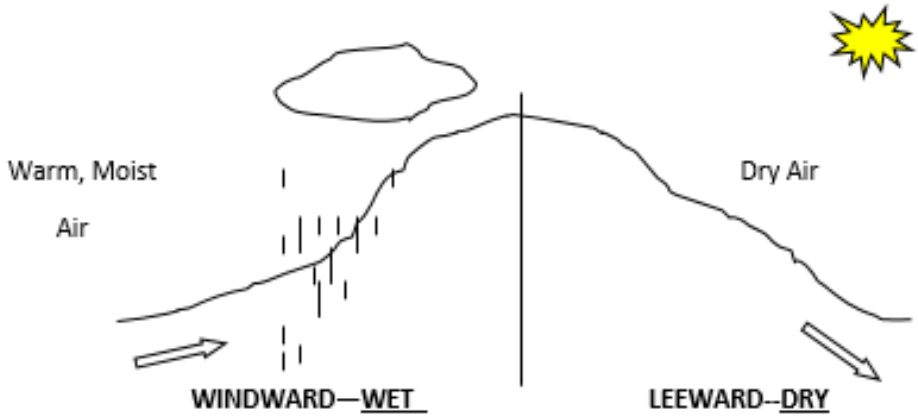
OCEAN CIRCULATION
EUROPE
AFRICA
ATLANTIC OCEAN
NORTH AMERICA
SOUTH AMERICA
PACIFIC OCEAN
ASIA
AUSTRALIA
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

3. Each current is considered a warm, hot, cool or cold current depending on where it is.
4. In general,
   a. *Warm currents:* along the equator
   b. _____*currents:* W side of ocean--E side of continents
   c. *Cool currents:* near Arctic and Antarctic circles
   d. _____*currents:* E side of ocean--W side of continents
5. Moisture is _____ picked up from a cold current. It will be picked up from a hot current.

Hot Current—*Wet* **Cold Current—*Dry***

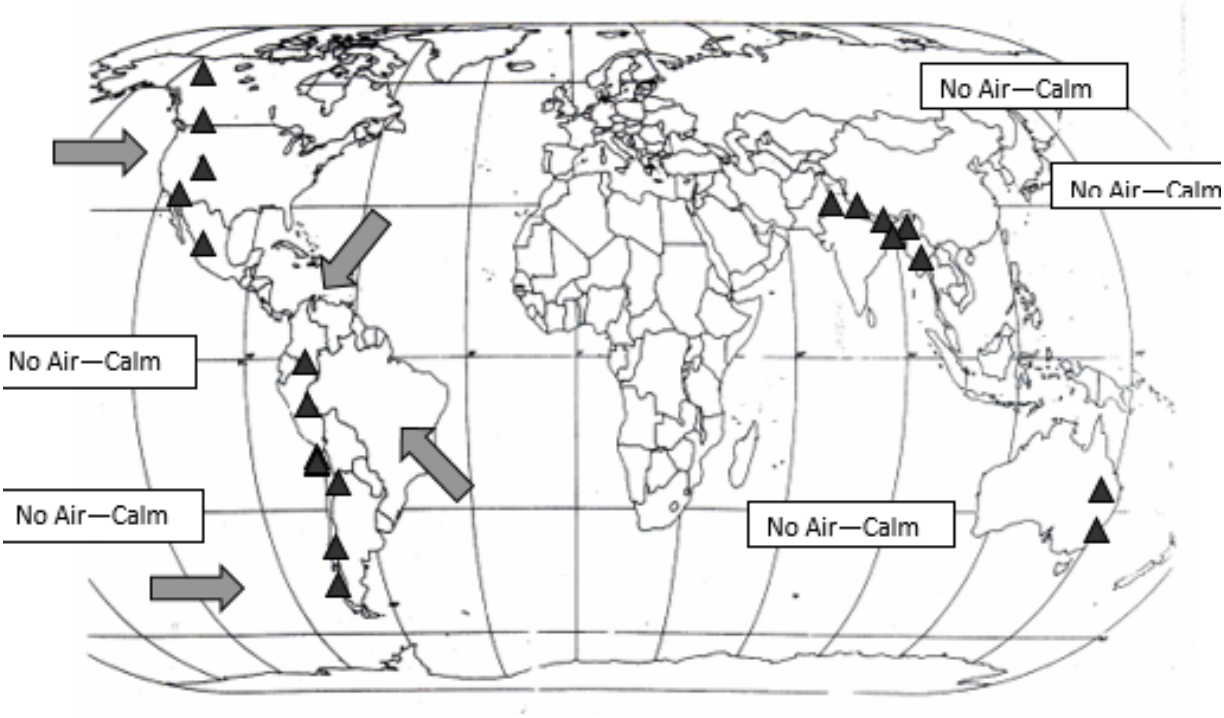


F. Mountain Barriers
   1. Barriers will block the winds and funnel them in different areas
      a. Rocky Mts. funnel the winds through the Great Plains and block south California
      b. The Alps block cold air from the north keeping N. Italy warm
   2. **Orographic** ppt.



a. _____ can result on the _____ side (Atacama Desert)

b. _____ on the _____ side (Washington & Oregon--windward of the Cascade Mts.)



V. Climate Maps—ASSIGNMENT

VI. Climographs

A. Graphic way of representing climates

1. Monthly averages of temperature is shown by a _____ graph
2. Monthly averages of precipitation is shown by a _____ graph

B. *See Handouts* and ASSIGNMENT

FOR THOUGHT AND DISCUSSION:

How might global warming or another ice age affect North America? How would any such climatic changes be different given the increased human population of this region? How might you or your descendants be affected by global warming or other similar changes?

RESOURCES

I. Definitions

A. Resources--_____.

1. Resources of Earth --trees, soil, minerals, fossil fuels, water, etc.
2. Human Resources

B. Renewable Resources--_____.

C. Nonrenewable Resources--_____.

D. Recyclable Resources--_____ (both renewable and nonrenewable)

II. Physical Resources

A. Land Resources

1. Soil--_____.

a. Needed to grow plants.

b. Composition

1) Organic matter (living or dead plants and animals) and inorganic matter(minerals)

2) Three layers

a) Top layer--Humus (organic material)

b) Second layer--Humus material washed down and mixed with mineral particles.

c) Third layer--Parent Material (rock)

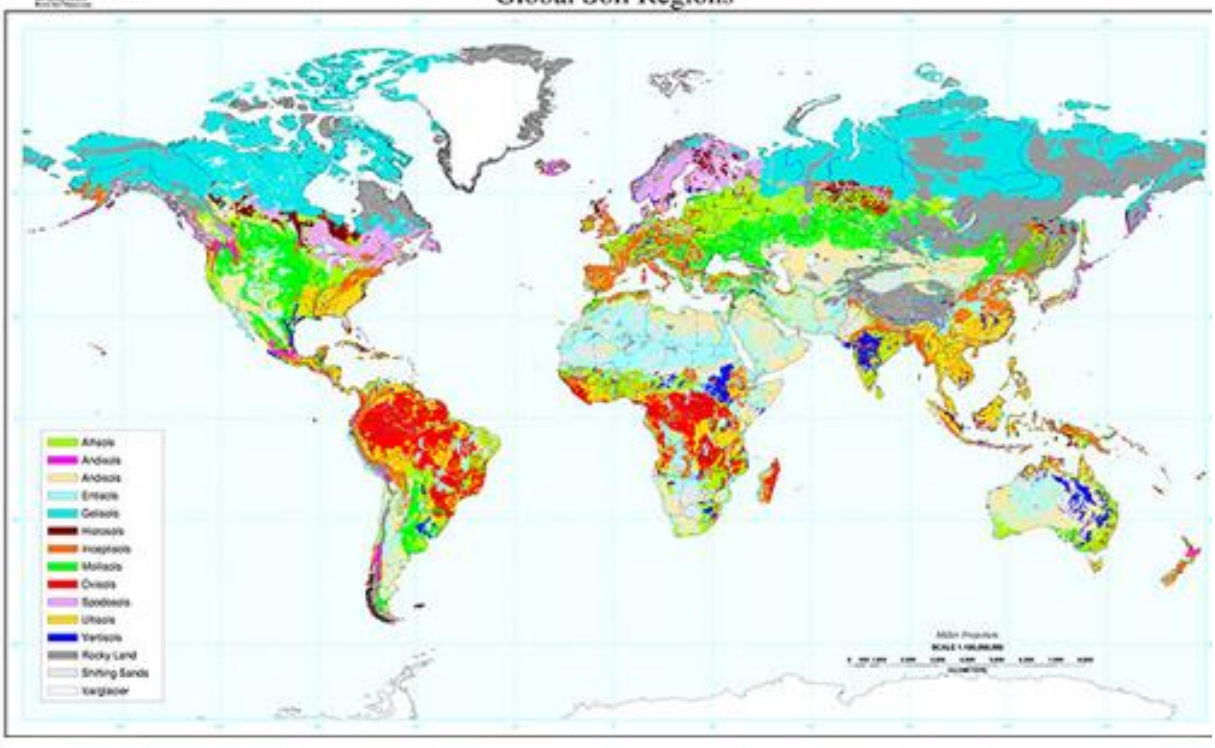
c. Each layer helps to determine what kind of soil is produced.

(Sometimes the soil has little or no humus. Sometimes areas have no soil at all, only bare rock.)

d. Soil Types

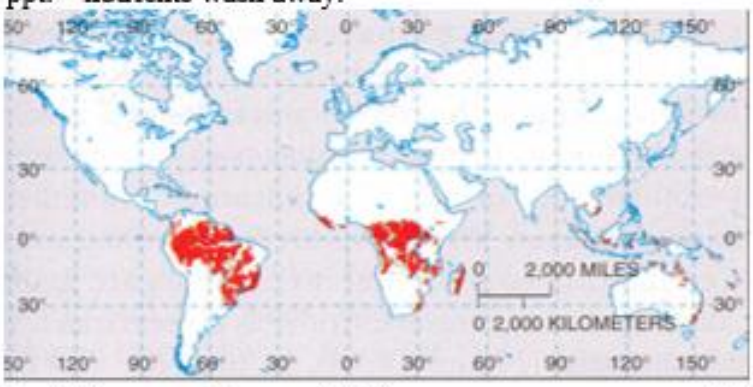
1) Different types of soil are found over large areas or <u>zones</u>.

Global Soil Regions

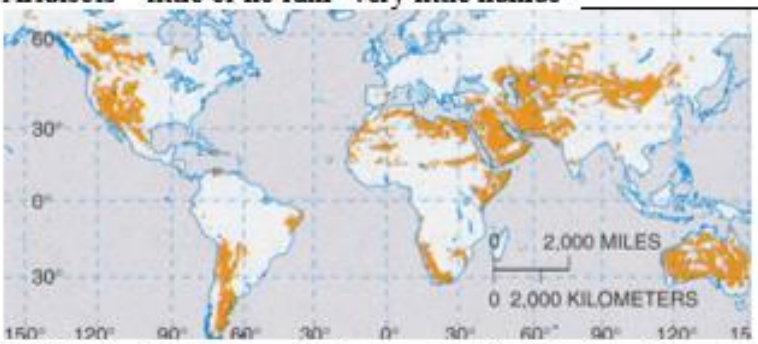


2) There are **12 major zones**--although locally there are minor divisions

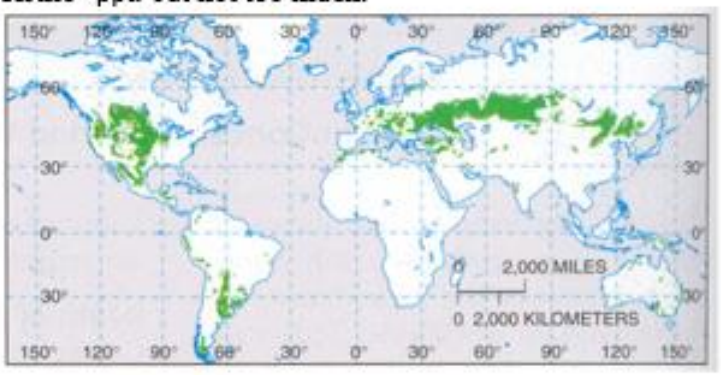
a) Oxisols –_____ fertility--found where it is warm /hot with a lot of ppt.—nutrients wash away.



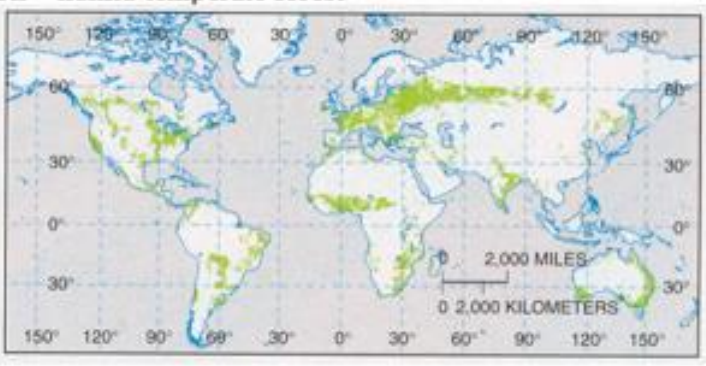
b) Aridisols—little or no rain--very little humus--_____ fertility.



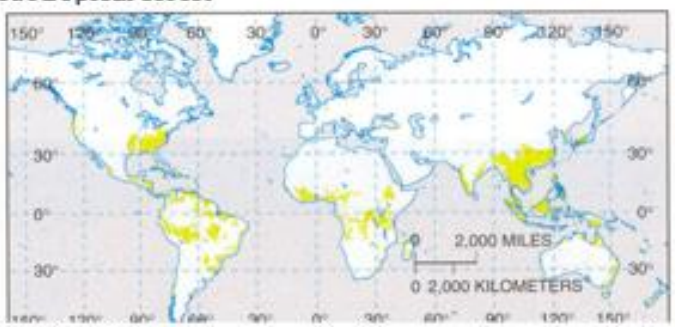
c) Mollisols-- Chernozem Soil—grassland soil--a lot of humus--_____ fertile--ppt. but not too much.



d) Alfisols—_____ fertility—moderately weathered forest soil—humid temperate forest



e) Utisols—_____ fertility—highly weathered forest soils, subtropical forest

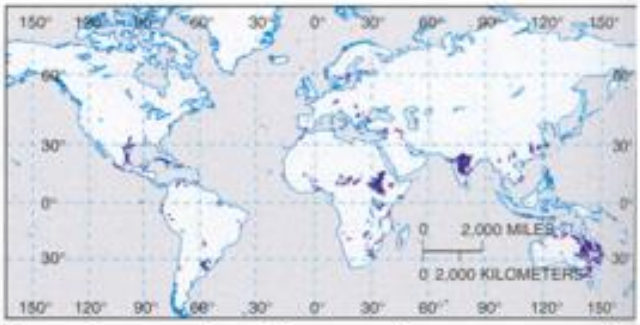


f) Spodosols—_____ fertility—northern conifer forest soils, cool humid forest

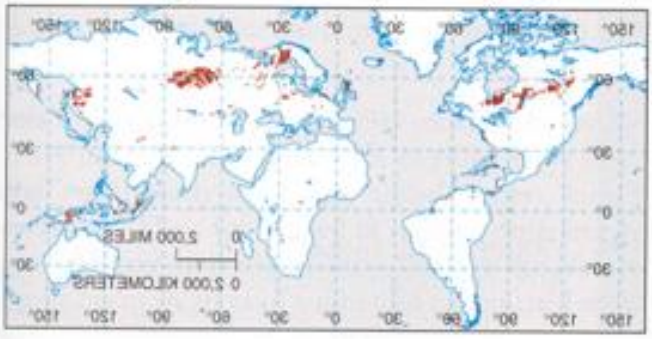
g) Entisols—_____ fertility, poor agricultural soil—not climate dependent—soil formation is very slow—low humus material

h) Inceptisols—_____ fertility—weakly developed soils, in humid regions

i) Vertisols—_____ fertility—clay soils, subtropics, tropics—low humus content

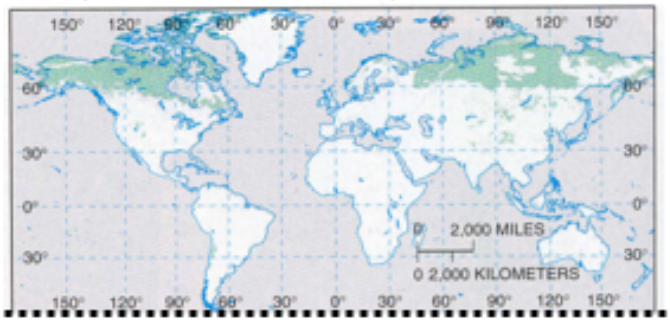


j) Histosols—organic soils—wet places—peat, muck, bog



k) Andisols—_____ fertile—areas affected by frequent volcanic activity

l) Gelisols—_____ fertility—high latitudes in the Northern Hemisphere—above tree line—permafrost

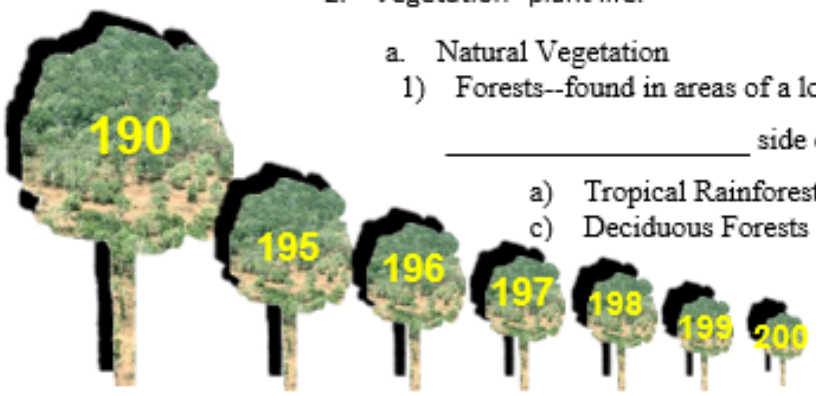


Soil Is Slipping Through Our Fingers

- The U.S. General Accounting Office estimates that from _____mil-lion acres of prime farmland are lost each year in the United States through mismanagement or conversion to nonagricultural uses. About half of all cropland in the United States and Canada is experiencing excessive rates of soil erosion—these countries are two of the few that monitor loss of topsoil.
- The Canada estimates that the organic content of cultivated prairie soils has declined by as much as _____compared with non-cultivated native soils.
- A 1995 study completed at Cornell University concluded that soil erosion is a major environmental threat to the sustainability and productive capacity of agriculture worldwide.
- Since 1950, as much as _____ of the world's farmable land has been lost to soil erosion, and the rate continues at 5 to 6 million hectares (about 12 to 15 million acres) per year 560 million hectares, 1380 million acres, to date (World Resources Institute and UNEP, 1997).
- The causes for degraded soils, in order of severity, include: overgrazing, vegetation removal, agricultural activities, overexploitation, and industrial and bioindustrial use (UNEP, 1997).
- The world's human population is growing at the rate of _____ million people a month (net increase), increasing the demand for food and agricultural productivity.

Robert W. Christopherson, Geosystems, An Introduction to Physical Geography, New Jersey: Pearson Prentice Hall, 2005, p 565.

2. Vegetation--plant life.



a. Natural Vegetation

1) Forests--found in areas of a lot of ppt.--_____ Cells, _____ side of mts., etc.

a) Tropical Rainforests
b) Subtropical Forests
c) Deciduous Forests
d) Needleleaf or Evergreen Forests

Amount of land in forest (Hectares per

- Forests cover almost _____ of the earth's land surface; the global area of forest systems has been reduced by one half over the past three centuries.
- Worldwide, the total forest area in 2005 is just under 4 billion hectares; the rate of deforestation is about _____ million hectares per year. The net change in forest area in the period 2000-2005 is estimated at -7.3 million hectares/year.
- Tropical forest are home to about 50% of all plant and animal species on the planet
- Approximately _____ billion tons of wood is harvested for fuel annually worldwide.
- Forest are among the most notable storehouses for biological diversity on the land—they house over two-thirds of known terrestrial species; they also harbor the largest share of threatened species.

UNEP, One Planet, Many People, Atlas of Our Changing Environment, 2005-2006

FOR THOUGHT AND DISCUSSION:

The Amazon rainforest is an important global resource that is being exploited primarily for local benefit. Given the common interest in preserving this valuable resource, what can we do (as individuals, and through our governments) to relieve some of the pressure against the value of the world of the Amazonian rainforest?

2) Savanna--_____--between forests & grasslands in moisture requirements
   a) covered _____ of Earth's surface prior to human intervention.
   b) has mostly been modified by _____.

3) Grassland--grasses, less ppt. requirement than savannas.
   a) Prairie--tall grasses b) Steppe--short grasses

(This is where the wheat & grain crops are grown--called the "_____"--Great Plains, Pampas, Steppe, Australia, etc.--primarily Chernozem Soil.)

- One fifth of the Earth's land surface is grassland—a biome found on every continent except Antarctica
- Grassland biomes can be found in the middle latitudes, in the interiors of the continents.
- Most of the world's natural grasslands have been converted to wheat or corn fields.

UNEP, One Planet, Many People, Atlas of Our Changing Environment, 2005-2006

4) Deserts—very sparse, very little vegetation but there is some—driest region [Cresol Bush, Cactus (only in N.A.), Joshua Tree, Rabbit Bush, etc.] — _____ type of vegetation.
   a) cover more than _____ of the land area of Earth.

b) The deserts are expanding in a process called _____
11) poor agricultural practices (over grazing and poor agricultural practices)
22) improper soil-moisture management
33) erosion
44) salinization
55) deforestation
66) global climate change

5) Tundra--_____--very cold--ground is usually frozen.

- The Earth's tundra and polar regions are the world's least populated regions.
- Arctic Tundra is in the Northern hemisphere, while Alpine Tundra is found on mountains throughout the world

UNEP, One Planet, Many People, Atlas of Our Changing Environment, 2005-2006

b. Planted Vegetation
1) Two types of crops
a) _____Crops--grains, fruit, vegetables, nuts, tea, coffee, etc.
b) _____ Crops--trees (lumber, paper), cotton (cloth),
jute (rope), rubber, hay (feed), flowers (perfume, ornamental uses), etc.

- Cultivated systems, including croplands, shifting cultivation, confined livestock production and freshwater aquaculture cover approximately _____ of total land area.
- In the last two decades, the major areas of cropland expansion were located in Southeast Asia, parts of South Asia, the Great Lakes region of eastern Africa, the Amazon Basin, and the U.S. Great Plains.
- The major decreases of cropland occurred in the southeastern United States; eastern China and parts of Brazil and Argentina.
- According to FAO estimates, 1,500 million hectares (3,706 million acres) of the world's land is currently being used for growing corps.
- Of all human activities, agriculture consumes the greatest amount of water, accounting for _ _____ of all water withdrawals worldwide.

UNEP, One Planet, Many People, Atlas of Our Changing Environment, 2005-2006

2) People have changed the natural environment.
a) cut down the forests--deforestation.
b) plowed the grasslands.
c) introduced new plants.
d) overused--desertification, etc.
e) fertilizers have been added.
f) over planted, over grazed, over cleared, etc.
examples--Dust Bowl, Ethiopia, Australia, Somalia, Indonesia, etc.--more in the next unit

c. Vegetation is a _____ resource, but it often takes a long time to grow back (ex. the Redwood takes centuries to grow back.)

3. Minerals--a natural res. taken out of the land, such as precious stones, metal ores, & fossil fuels.
   a. Not grown--found in ores (the hard rock minerals are found in) and must be mined.
   b. Are not renewable.
   c. Metals vs. Nonmetallic Minerals
      1) Metals--solid, shiny and can conduct electric currents
         a) Plentiful metals--iron, aluminum, manganese, titanium, magnesium, etc.
         b) Scarce metals--Copper, lead, zinc, tin, tungsten, chromium, gold, silver, platinum, uranium, etc.
      2) Nonmetals--minerals which do not have the characteristics of metals.
         a) Minerals for chemicals, fertilizers, and special uses--sodium chloride (salt), phosphates, nitrates, sulfur, precious stones (diamonds, rubies)
         b) Building materials--clay, sand, gravel, gypsum, etc.
         c) Fossil Fuels--coal, petroleum and natural gas [not technically minerals -- produced from organic materials--included since it takes millions of years to produce and they are mined.]

4. Land resources
   .a. Iron Ore & Steel--NE US
   b. Petroleum--Texas, Alaska, Saudi Arabia, etc.
   c. Farmland
   d. Gold & Silver--California, Nevada, Colorado, Australia, Brazil,
   e. Diamonds--South Africa
   f. Emeralds—Colombia
   g. etc.






FOR THOUGHT AND DISCUSSION:

Wildlife tourism is suggested as a way to provide economic opportunities while also protecting the environment. What are the advantages of this strategy? Can you think of other strategies to protect the fragile environments and endangered animals of Africa (and other developing regions), while fostering economic growth?

B. Air Resources
   1. Atmosphere--_____.
   2. Air is made up of gases.
      a. Nitrogen—most plentiful
      b. Oxygen
      c. Argon
      d. Carbon Dioxide
   3. The atmosphere also creates a "_____" effect.
      a. Good Points--it keeps out harmful light rays and retains moisture and warmth near the surface of Earth.
      b. Bad Points--Some scientists believe with the additional pollution in the atmosphere the "greenhouse" is keeping in too much heat and the earth is getting hotter.

C. Water Resources
   1. All forms of life need water.
   2. Water also influences the climate and vegetation.
   3. It also influences settlement patterns.

FOR THOUGHT AND DISCUSSION:

What water problems exist in our region? Has our region experienced water shortages or flooding? Do you know where the water you use comes from? If you don't know, find out.

FOR THOUGHT AND DISCUSSION:

The allocation of water resources is a problem around the world. The Nile River flows through many different countries (states). If people from upstream take too much, those who live downstream may be left with little or nothing. Refer to a map of the region while you think and discuss this question. Through with countries does the Nile pass? What is the direction of the flow of the Nile? What ideas can you suggest for allocating the water from the Nile among all the many potential users? What agreements actually exist to allocate water from the Nile? What is happening to the delta?

HUMANS AND THEIR ENVIRONMENT

Unit II. Population and Migration

We will discuss some of the main concepts and define some of the basic vocabulary associated with population. Topics discussed will include: world, regional, and national population trends and growth, the demographic transition model influence on past patterns and future trends, and population distribution. Migration will also be discussed at a variety of scales. Migratory patterns through time will be included along with push and pull factors, voluntary and involuntary migrations.

> *Understanding the ways in which human population is organized geographically helps students make sense of cultural patterns, political organization of space, food production issues, economic development concerns, natural resource use and decisions, and urban systems. Therefore, many of the concepts and theories encountered in this part of the course connect with other course units. Additionally, course themes of location, space, place, scale of analysis, and pattern can be emphasized when studying basic population issues such as crude birth rate, crude death rate, total fertility rate, infant mortality rate, doubling time, and natural increase.*
>
> *Explanations of why the population is growing or declining in some places are based on patterns and trends in fertility, mortality, and migration. For example, when learning about the relevance of place context and government policies, students may analyze fertility rates and age–sex structures (shown in population pyramids) in various countries. Analyses of refugee flows, immigration, and internal migration help students understand the connections between population phenomena and other topics. For example, environmental degradation and natural hazards may prompt population redistribution at various scales, which in turn creates new pressures on the environment, culture, and political institutions.*
>
> *This part of the course also enhances students' critical understanding of population trends across space and over time as they consider models of population growth and decline, including Malthusian theory, the demographic transition, and the epidemiological (mortality) transition model. Students can then evaluate the role, strengths, and weaknesses of major population policies, which attempt to either promote or restrict population growth.*
>
> [Course Description: Human Geography, 2015,
> The College Board, Advanced Placement Program.]

ENDURING UNDERSTANDING

A. Knowledge of the geographic patterns and characteristics of human populations facilitates understanding of cultural, political, economic, and urban systems.

B. Populations grow and decline over time and space.

C. Causes and consequences of migration are influenced by cultural, demographic, economic, environmental, and political factors.

LEARNING OBJECTIVES

- Analyze the distribution of human populations at different scales.
- Use population density to explain the relationship between people and the environment.
- Explain the implications of population distributions and densities.
- Analyze population composition.
- Explain contemporary and historical trends in population growth and decline.

- Interpret and apply theories of population growth and decline
- Evaluate various national and international population policies
- Analyze reasons for changes in fertility rates in different parts of the world.
- Explain the causes and implications of an aging population.
- Explain how push and pull factors contribute to migration.
- Apply the concepts of forced and voluntary migration to historical and contemporary examples.
- Analyze major historical migrations.
- Analyze the cultural, economic, environmental, and political consequences of migration.

ESSENTIAL KNOWLEDGE

- Factors that explain patterns of population distribution vary according to the scale of analysis (i.e., local to global)
- Physical factors (e.g., climate, land forms, water bodies) and human factors (e.g., cultural, economic, historical, political) influence the distribution of population.
- The three methods for calculating population density are arithmetic, physiological, and agricultural.
- Population distribution and density influence political, economic, and social processes (e.g., redistricting, provision of services such as medical care).
- Population distribution and density impact the environment and natural resources (e.g., carrying capacity).
- Population distribution and density affect the need for infrastructure (e.g., housing) and urban services (e.g., sanitation).
- Age, sex, and ethnicity are elements of population composition that may be mapped and graphed at various scales.
- Population pyramids are used to project population growth and decline and to predict markets for goods and services.
- Demographic factors that determine population growth and decline are fertility, mortality, and migration.
- Rates of natural increase and population-doubling times are used to explain population growth and decline
- Social, cultural, political, and economic factors influence fertility, mortality, and migration rates
- The demographic transition model may be used to explain population change over time and space.

- Malthusian theory is used to analyze population change and its consequences
- The epidemiologic transition explains causes of changing death rates.
- Types of population policies include those that promote or restrict population growth (e.g., pronatalist, antinatalist).
- Changing social values and access to education, employment, health care, and contraception have reduced fertility rates in most parts of the world.
- Changing social, economic, and political roles for women have influenced the patterns of fertility, mortality, and migration.
- An aging population has social (e.g., retirement), economic (e.g., dependency ratio), and political (e.g., voting patterns) implications.
- Push and pull factors can be cultural (e.g., religious freedom), demographic (e.g., unbalanced sex ratios, overpopulation), economic (e.g., jobs), environmental (e.g., natural disasters), or political (e.g., persecution).
- Push factors are often negative (e.g., poor economic conditions, warfare), while pull factors are often perceived as positive (e.g., a better quality of life, economic opportunities).
- Forced migrations include those involving refugees, internally displaced persons, and asylum seekers.
- Voluntary migrations may be transnational, internal, chain, step, and rural to urban.
- Patterns of voluntary and forced migration may be affected by distance and physical features.
- Major historical migrations include forced migration of Africans to the Americas, immigration waves to the U.S., and emigration from Europe and Asia to colonies abroad.
- Governments institute policies to encourage or restrict migration.
- Migration has consequences (e.g., remittances; spread of languages, religions, innovations, diseases) for areas that generate or receive migrants.

BASIC VOCABULARY AND CONCEPTS

POPULATION:
Demography
Population densities
Demographic regions
Population distributions
Location and characteristics of
--major population cultures
--emerging population clusters
--sparsely populated areas
Natality
Mortality
Population explosion
Thomas Malthus
Demographic Transition model (DTM)
Zero population growth (ZPG)
Age distribution
Population pyramid
Cohort
Sex ratio
Gendered space

Standard of living
Infant mortality rate
Life Expectancy
Diffusion of fertility control
Disease diffusion
Maladaptation Locations of high and low
--Total Fertility Rate (TFR)
--Crude Birth Rate (CBR)
--Crude Death Rate (CDR)
--Natural Increase Rate (NIR)

Sustainability
Epidemiological Transition model
Demographic equation
Dependency ratio
Rate of natural increase
Doubling time
J-curve
S-curve
Ecumene
Overpopulation
Underpopulation
Carrying capacity
Arithmetic Density
Agricultural Density
Physiological Density
Population projection
Neo-Malthusian
Demographic momentum
Spatial analysis
Anti-natalist policies
Pro-natalist policies

MIGRATION:
Immigration
emigration
Push-pull factors
Voluntary
Forced—Involuntary migration
Transmigration
Refugee
Migrations patterns
-- intercontinental
-- interregional
-- rural-urban
Place utility
Activity space
Personal space
Space-time prism
Gravity model
Distance decay
Step migration
Chain migration
Intervening obstacles and opportunities
Cyclic movement
Migratory movement
Periodic movement
Transhumance
Internal migration
Ravenstein's Law
Recent Trends
Wilbur Zelinsky's Migration Transition Theory
Brain Drain
Guest Workers

STUDY QUESTIONS—POPULATION & MIGRATION

1. Explain the difference between arithmetic growth and exponential growth.
2. What have been some of the trends in population growth and distribution since the First Agricultural Revolution?
3. What impact has the Industrial Revolution had on human geography? How have populations which have had such revolutions typically responded?
4. What is the relationship between population growth and distribution to natural hazards?
5. How does distance decay and intervening opportunity affect migration patterns?
6. What is the relationship between improvements in global health and the appearance of age-sex pyramids over the last century?

7. Population pyramids are used to analyze a country's demographic characteristics and for government officials to plan for future needs.
    A) For each of the basic shapes of population pyramids (expanding, declining, and stable) discuss how the following terms/concepts are revealed in the shape of the pyramid:
        i. Birth rates.
        ii. Death rates.
        iii. Dependency ratio.
    B) For each of the basic shapes of population pyramids (expanding, declining, and stable) give an example of a country with each shape and discuss two geographic challenges they face in the future.
    C) What impact does the shape (expanding, declining, and stable) of a country's population pyramid have on migration issues? Use specific examples in your response.
8. Why do fertility rates and mortality rates differ from region to region and sometimes even within regions?
9. What tools do demographers use to study population structures?

10. Population growth rates vary around the world. Given this fact, answer the following:
    A) Define Crude Birth Rate (CBR), Crude Death Rate (CDR), Total Fertility Rate (TFR), and Natural Increase Rate (NIR).
    B) Explain why population growth rates vary between countries with different levels of development.
    C) Name one developing country that has a population growth rate comparable to the industrialized world's rates and explain how that country has accomplished this.
11. What contributions did John Snow, Thomas Malthus, and Ernst Ravenstein make to population geography?
12. What were Thomas Malthus's views on population growth? What were some of his predictions? How have neo-Malthusians broadened Malthus's theory? What are some criticisms of these theories? (give at least 3 criticisms)
13. Explain the demographic transition model. Why are some demographers suspect of its validity when applied to contemporary growth situations?
14. The demographic transition model has often been used to predict population change in regions experiencing economic development.
    A. Diagram and clearly label the classic demographic transition model.
    B. Summarize the main stages and the reasons why a society moves from one stage to another.
    C. Explain why this model might **not** be useful in predicting population change in some countries today.
    D. Some demographers argue for a Stage V. What characterizes Stage V, and what countries and/or regions are now in this stage? Why are they in this new stage?
15. What role does medical geography play within the realm of human geography?
16. Distinguish between each of these examples of human movement:
    A. voluntary and forced migrations
    B. cyclic and periodic movement
    C. immigrant and emigrant
    D. push and pull factors
17. How does fertility, mortality and migration influence the distribution of population?
18. What influences the decrease in fertility rates in various parts of the world?
19. Explain historical and current migration trends around the world.

20. Overpopulation continues to concern many government officials around the world.
    A) Define the following terms:
        i. Arithmetic density.
        ii. Physiologic density.
        iii. Agricultural density.
        iv. Overpopulation.
        v. Under-population.
    B) Name one country that is overpopulated and use the above terms to justify your response.
    C) Name one country that is under-populated and use the above terms to justify your response.
    D) Discuss two challenges of overpopulation for a developed and a developing country. Use specific examples.
21. Describe some of the pro- and anti-natalist policies practiced by nations in today's world.
22. Population growth is an on-going concern for many countries in the world today. Two such countries are India and China. Both have attempted to control their growth rates through birth control policies.
    A. What were/are some of the family planning programs attempted by India (discuss at least 3 programs)? Has India been successful? Why or why not?
    B. What is China's policy? Has China been successful? Why or why not?
23. Government policy experts from different countries look at population growth rates from a variety of perspectives. Choose one country from each list and discuss in detail their population policies and what prompted that government to take such a stance.
    A) Pro-natalist countries: Germany, France, Japan.
    B) Anti-natalist countries: China, India, Kenya.
24. How have population-control policies contributed to female infanticide and the abortion of female fetuses in India, China and other countries where tradition and economies threaten girls and women?
25. What is the role of women in various countries around the world?
26. People migrate for many different reasons
    A. List and explain the major push and pull factors in migration.
    B. Give one example within the US and Canada for each type of migration.
    C. Give one global example for each type of migration.
27. Define the two types of internal migration and then discuss the major intraregional and interregional migration patterns within the US in recent years. How do the intraregional migration trends differ in less developed countries?
28. Explain the guest worker program in Europe and the need for such program. Describe the similarities and differences between illegal immigrants to the US and guest workers in Europe.
29. Why do migrants face obstacles? Explain what an intervening obstacle is and give four examples of obstacles to human migration in the world.
30. Today the world is experiencing record rates of migration. Discuss in detail two push and pull factors for each of the following types of migration:
    A) International migration (Eastern to Western Hemisphere or Southern to Northern Hemisphere).
    B) Interregional migration (Northeast U.S. to Southeast U.S. or Central America to Mexico).
    C) Intraregional migration (rural to urban in China or urban to suburban in the U.S.).
31. Where are migrants distributed on a global scale? Where are the largest flows of migrants today? Why?
32. The Industrial Revolution, demographic transition and international migration are all connected. Answer the following questions using specific examples.
    A) What is the relationship between the Industrial Revolution and demographic transition? In other words, how did the Industrial Revolution contribute to massive population growth?

B) How did the diffusion of the Industrial Revolution influence international migration streams in the19th and early 20th centuries?

C) Give two specific examples from the last thirty years of countries in Stage II of the demographic transition and how being in that stage contributed to international migration.

33. Define chain migration.

A) Give two examples with regard to the impact chain migration has had on urban areas of the United States.

B) Give two examples with regard to the impact chain migration has had on rural areas of the United States.

34. The nature of migrants to the United States has changed dramatically over the past 150 years.

A) Identify the two regions where most migrants to the United States originated prior to 1930. Describe at least one push factor and one pull factor for migration at this time.

35. B) Identify the two regions where most migrants to the United States originated after 1930. Describe at least one push factor and one pull factor for migration at this time.

36. Both Thomas Malthus and the modern-day neo-Malthusians believe that the world will become overpopulated.

A) Describe Malthus's views on population growth and food production and his conclusions on the overpopulation of the world.

B) Describe the views of the neo-Malthusian movement. In what ways do the views of Malthus and the neo-Malthusians differ?

C) Describe Julian Simon's or any neo-Malthusian critics' views on overpopulation. How do they differ from the neo-Malthusian movement?

NOTES

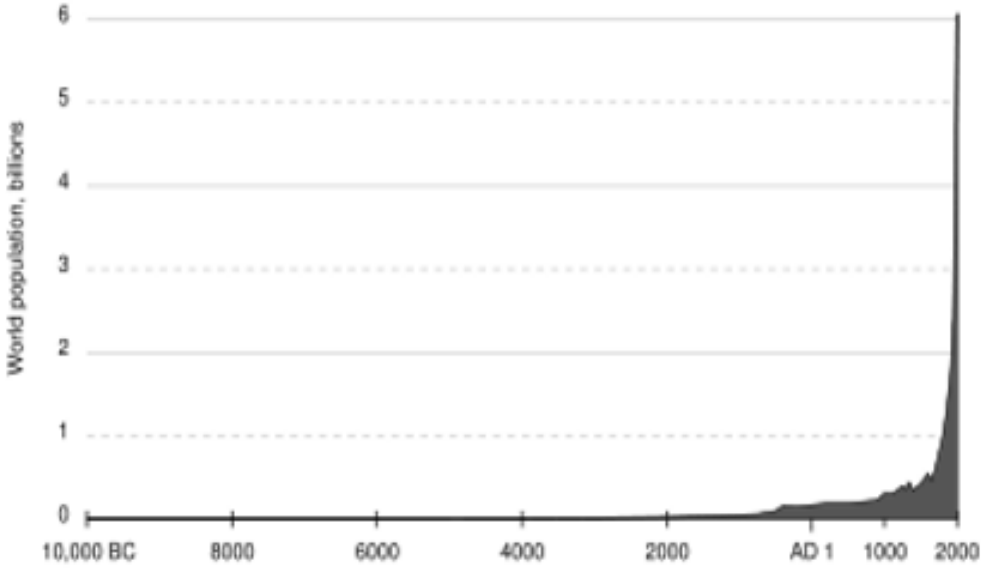
Read Chapter 2 in the textbook

I. World Population

A. *Demographers* [_____.] have est. the world pop. at different times in human history—balance between two forces—

_____

B. Growth of population over time

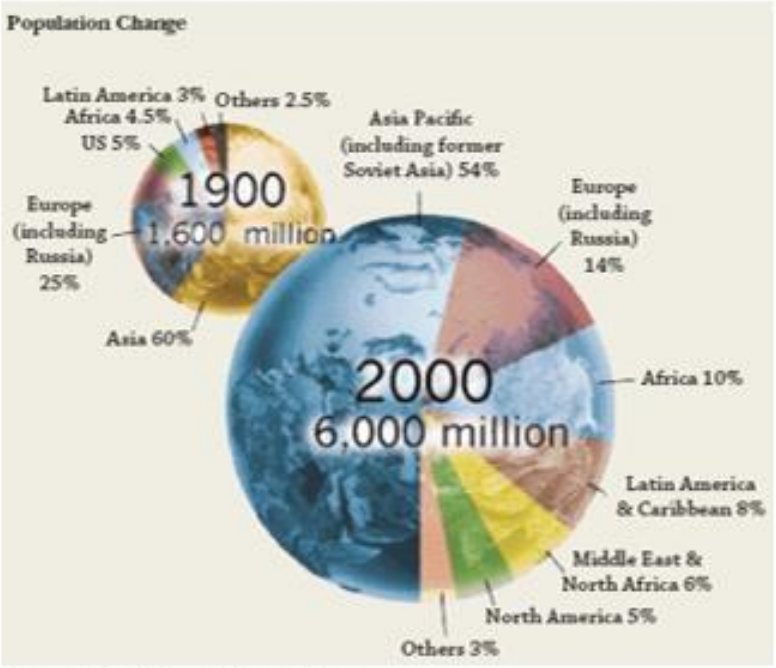


1. Until 1700's
   a. *Natural increase* [_____] was _____.
   b. *Birth rate* [the number of people _____ each year per thousand] was _____.
      1) _____
      2) _____
      3) _____
   c. The *death rate* [the number of people _____ each year per thousand] was also _____.
      1) _____
      2) _____
      3) _____
      4) _____
      5) _____
2. During the 1700's.
   a. Population began to increase.
   b. Associated with the _____
      1) _____
      2) _____
      3) _____
   c. Advances in medical sciences
      1) _____
      2) _____
      3) _____
   d. Increased trade and contact
      1) _____
      2) _____
      3) _____

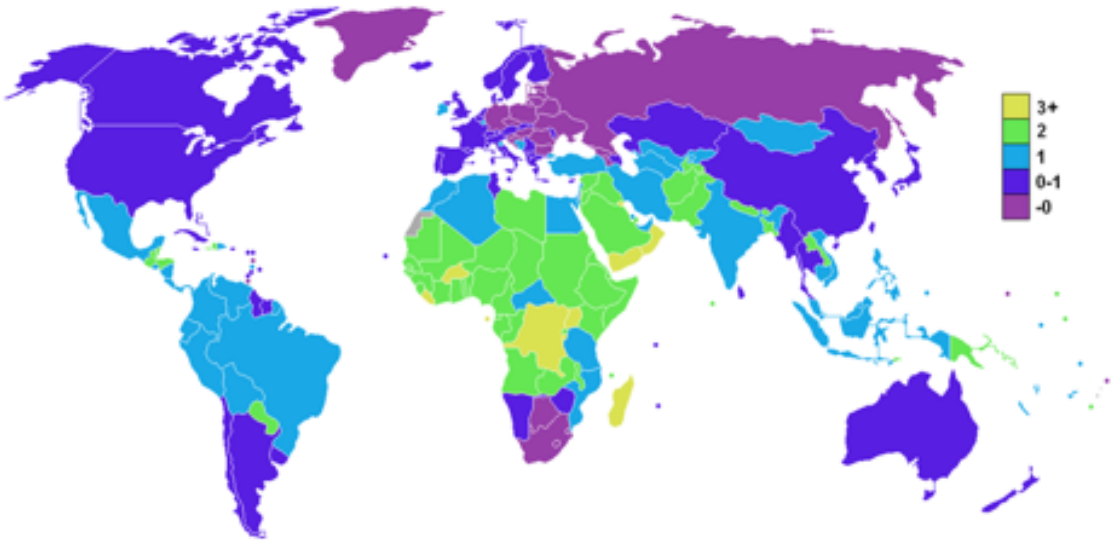
3. Between 1650 & 1850 the world population doubled.
   a. from 500 million
   b. to one billion

4. By 1960, there were 3 billion people.

5. By 1999, there were an est. 6 B .[Today—over 7.2 B]
   a. Most countries take a pop. *census* [_____].
   b. The United Nations est. the number for those that don't report an official population count.
   c. Today, increasing by about _____ per year.



C. Population increases vary—***page 51***
   1. Depends on the balance between the birth & death rates.—natural increase
   2. Can be complicated by migration—then called growth rate
      a. Why is it important to look at growth rates?—Doubling Time
         1) 3% growth rate = the pop. will double in _____years.
         2) 2% growth rate = the pop. will double in _____years.
         3) 1% growth rate = the pop. will double in _____ years
      b. Calculated by taking 70 divided by the percentage of growth



Population Growth Rate by Country, 2006

"Population Growth Rate Map." CIA World Factbook. 2 October 2006 <http://en.wikipedia.org/wiki/Image:Population_growth_rate_world.PNG

FOR THOUGHT AND DISCUSSION

The world Crude Birth Rate (CBR) is 23 per 1,000, while the Crude Death Rate (CDR) is 9 per 1,000. What does this tell you about the world's population growth rate?

3. Each country is going through different changes or Demographic Cycles
   a. Industrialization and urbanization in the last 200 years have caused a transition in world pop. growth patterns
   b. demographic transition: sequence of changes over time in vital population growth rates.
   c. Called the Demographic Transition Model

	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5 ??????	
50						3%
40						
30						2%
20						
10						1%
0						
	Low Growth	High Growth	Decreasing Growth	Low Growth		

See page 56 for this graph.

Stage 1 High Stationary_____

_____

Stage 2 Early Expanding_____

_____

Stage 3 Late Expanding_____

_____

Stage 4 Low Stationary_____

_____

Stage 5 Declining ????_____

_____

4. Levels of Development—***page 300***
   a. Developed or Industrialized Countries.—MDC's
      1) Went through the Industrial Revolution the earliest.
      2) Have low birth rate and low death rate--low growth rate
      3) Most of the European countries, U.S., Canada, Japan, etc.
      4) The per capita income [average amount of money earned by each person] is fairly high.
      5) Transportation and communication is good.
      6) Schools, health care and housing are good.
   b. Developing or Industrializing Countries
      1) High birth rate & low death rate—high growth rate.
      2) Economy is improving
      3) Changing from a farming to an industrial society.
      4) Health care and education are improving.
   c. Underdeveloped or Pre-industrial or Lesser Developed countries.—LDC's
      1) High birth rates and high death rates--low growth rate.
      2) Economics are largely based on farming and are generally poor.
      3) Health care and education are often not available.
      4) Per capita income is low.
      5) *NO LONGER USED AS A DESIGNATION—Or Is It?*
5. How does the world fit into this pattern today?
   a. No Stage 1 nations because of _____
   b. Stage 2 describes all human groups in early history; now found in countries with uncertain low levels of food production, subsistence economic systems. Less Developed Countries (LDC's) "Third World."
   c. Increasing development and associated socio-economic changes moving some into Stage 3.
   d. Stage 4-->US, Canada, Europe, Australia-NZ, Japan--the developed, industrialized nations of the world.

World Facts

- More than one-half of the world's people live below the internationally defined poverty line of less than U.S. $2 a day—including 97 percent in Uganda, 80 percent in Nicaragua, 66 percent in Pakistan, and 47 percent in China, according to data from the World Bank.
- Nearly one-third of rural residents worldwide lack access to safe drinking water.
- The use of modern contraceptives is more common among wealthier women than poor women in nearly all countries, and the gap is particularly pronounced in the poorest countries, in places as diverse as Uganda and Nepal.
- Africa's infant mortality rate is nearly 15 times that of the developed world.
- The more developed world uses over five times the energy per capita used by the less developed world. North America uses over eight times as much energy per person as does Latin America.

Population Total and Natural Increase
for the World and Major Regions: 2005

Region	Total Population (millions)	Natural Increase (annual percent)
World	6,477	1.2%
Anglo-America	329	0.6
Latin America	559	1.6
Europe	730	-0.1
Asia	3,921	1.3
Africa	906	2.3%
Oceania	33	1.0

Population Reference Bureau, 2005

REALITY CHECK!!!

If we could shrink the Earth's population to a village of precisely 100 persons with all existing human ratios remaining the same, it would look something like this:

- **There would be 57 Asians, 21 Europeans, 14 from the Western Hemisphere and 8 Africans.**
- **70 would be non-white.**
- **70 would be non-Christian.**
- **50% of the world's wealth would be in the hands of only 6 people; all 6 would be citizens of the United States.**
- **70 of us would be unable to read and write.**
- **50 would suffer from some degree of malnutrition.**
- **80 would be homeless or in substandard housing.**
- **Only 1 of us would have a college degree.**

6. Demographic transition useful in describing the world's past...applicable to the future?
   a. In some nations, death rate has dropped without economic modernization, e.g., Sri Lanka, DDT vs malaria. 1946 life expectancy 44; 1954 life expectancy 60.
   b. Resulting population growth hinders economic development--->strain.
   c. Rapid increases in population that accompanied Europe's industrialization was alleviated by migration.
   d. Not possible today. Many countries are already at high population levels, e.g., India. Population increasing at relatively low rate but it is still a huge number of people.
   e. Therefore, transition theory not accurate in predicting demographic change in LDC's
   f. Model is also assuming all countries want to industrialize.

FOR THOUGHT AND DISCUSSION

Which was the cause and which was the effect in the Demographic Transition? Did declining birth rates encourage urbanization and industrialization, or did industrialization and urbanization cause birth rates to decline? Provide evidence to support your view.

D. Population Pyramids.—***page 54***

1. In order to understand the rate of growth in a population you must know something about its _____.
2. Also look at the ages of the people in a country & the number of males & females to predict _____.
3. Countries that have a high percentage of young people will _____ (ex. Mexico, Korea, and India).
4. A population with a high percentage of females will likely _____.
5. Population pyramids can show the effects of past events.
   a. Wars
   b. Famines
6. Can also predict problems associated with _____.
   a. economic restructuring to respond to changes in demand
   b. dependency
   c. social, psychological, political problems
7. Can also reflect unusual situations

a. _____ e. _____

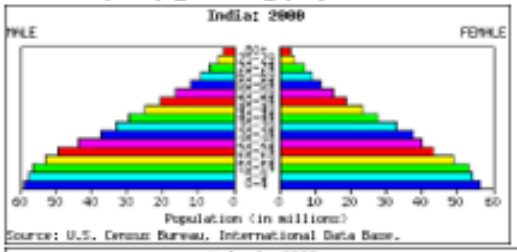
b. _____ f. _____

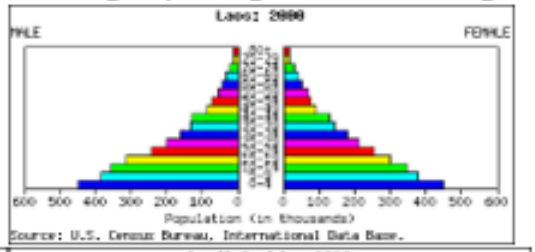
c. _____ g. _____

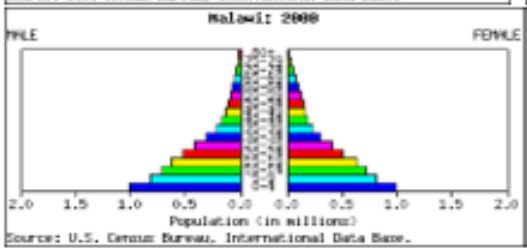
d. _____ h. _____etc.

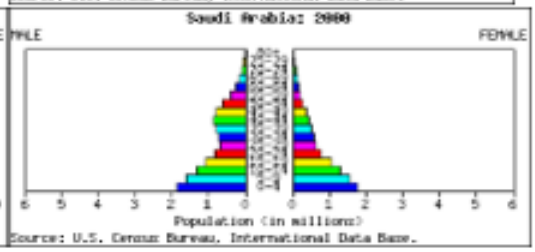
POPULATION PYRAMIDS

Rapidly growing populations—each cohort group is larger than the last age bracket.

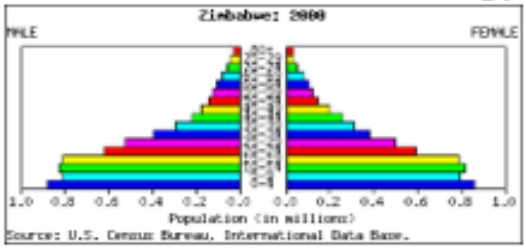


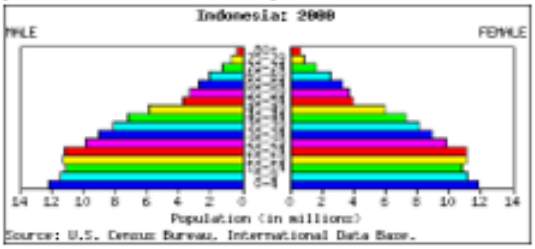




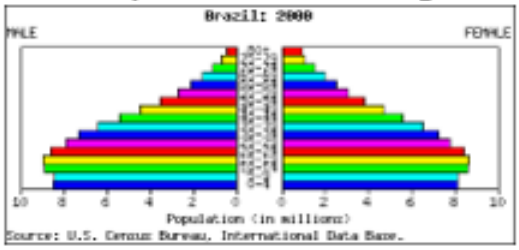


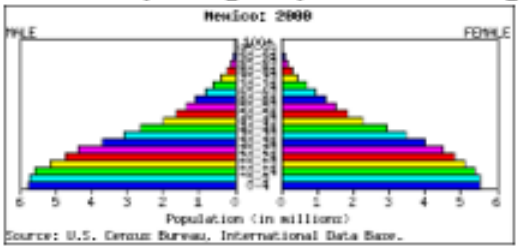
Growing populations—but slowly.





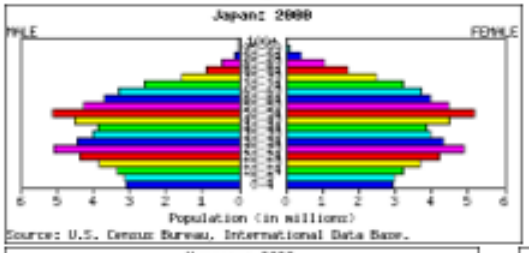
Populations that have begun to stabilize—repeating the previous cohort group.

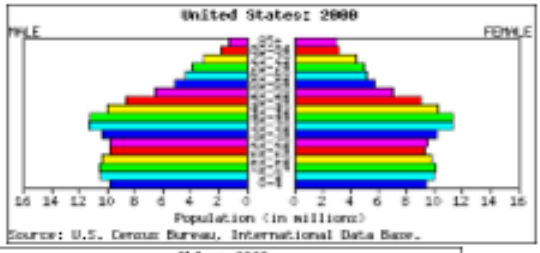


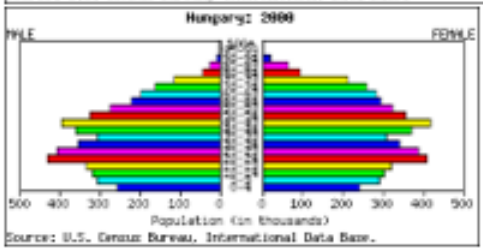


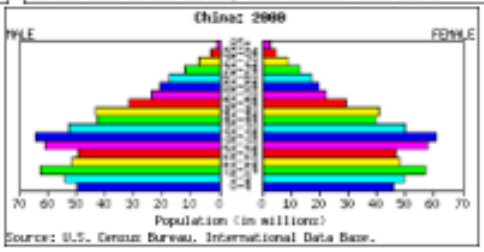
Declining populations—the base age bracket is smaller than the previous cohort group.

(Notice that the top age bracket is older for the more stabilized populations and declining populations.)

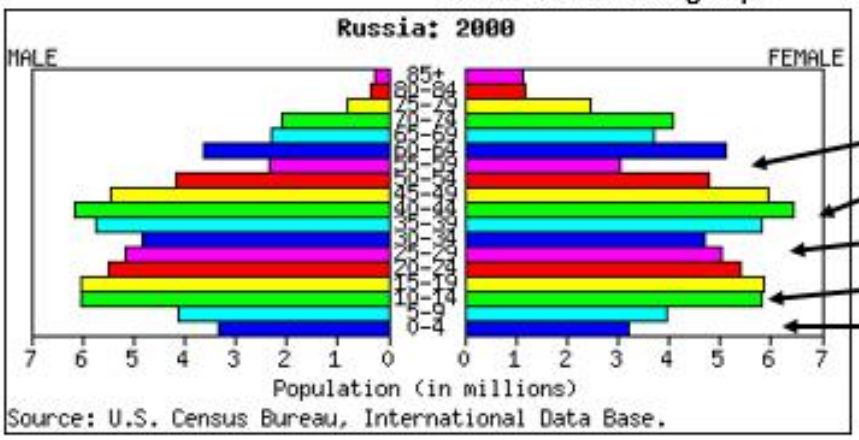








Look at events through history and their impact on the population. Also, look at trends. What was happening during the period of time in that Country? Also which cohort group are the children of a certain group?



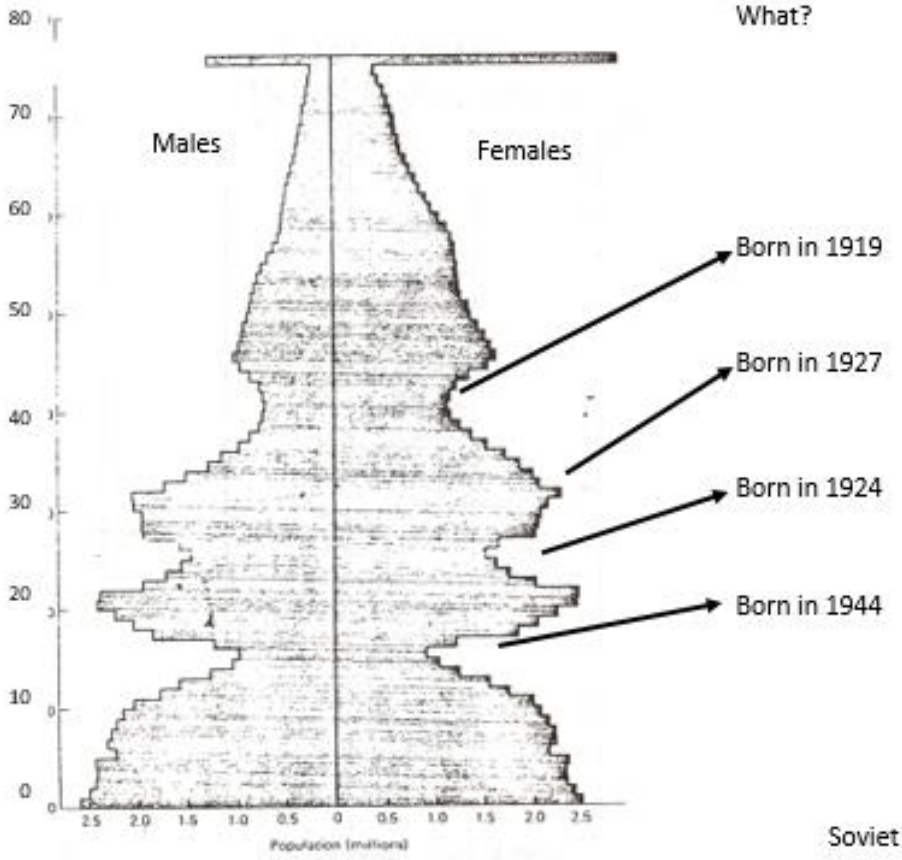
Born in 1941-1945

Born in 1956-1960

Born in 1966-1970

Born in 1980-1990

Born in 1996-2000



What?

Born in 1919

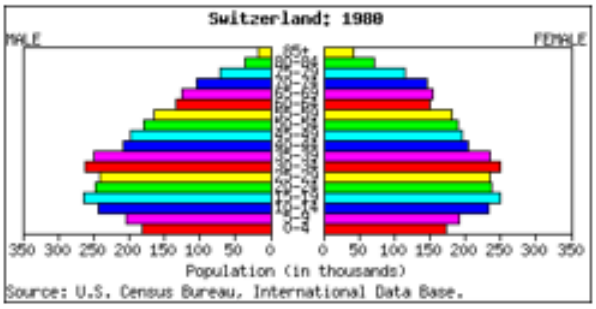
Born in 1927

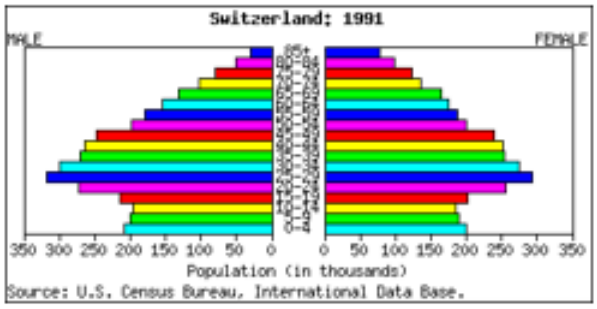
Born in 1924

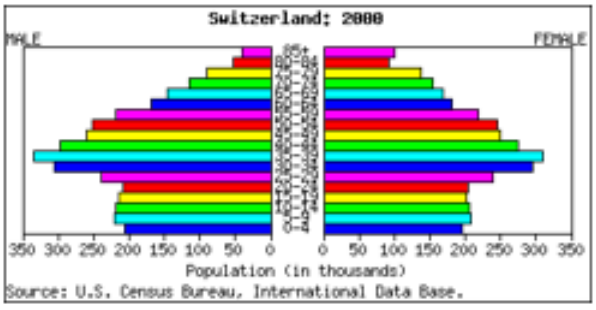
Born in 1944

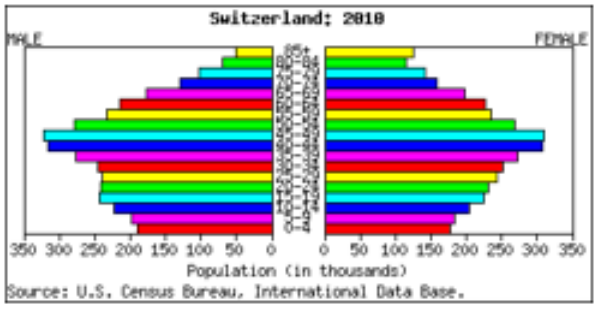
Soviet Union, 1959

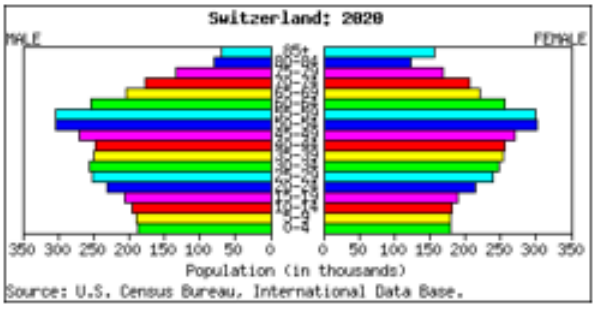
You can also look at changes through time and predict the future
(IF you assume that conditions will stay the same.)

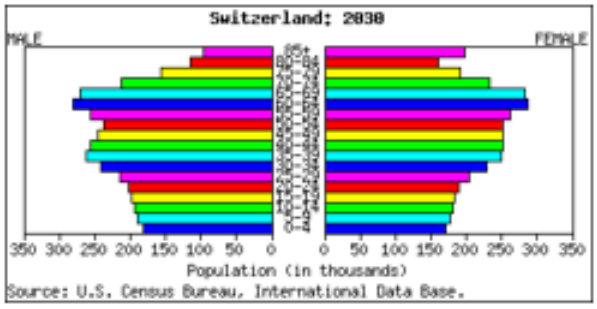


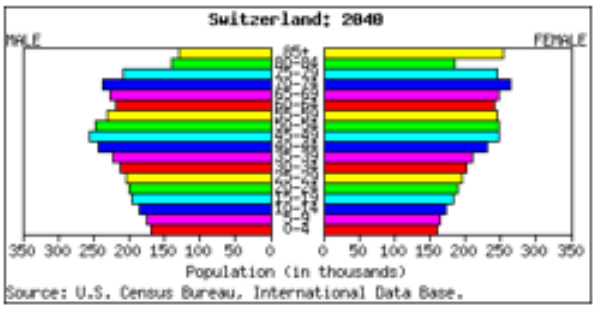


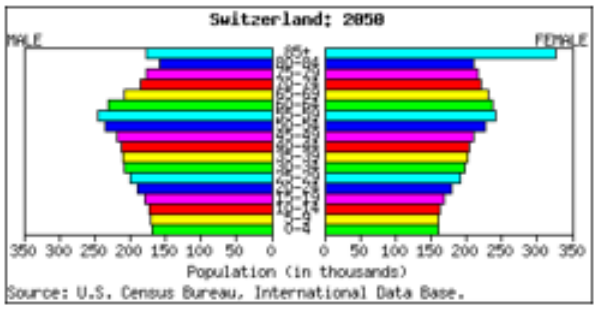




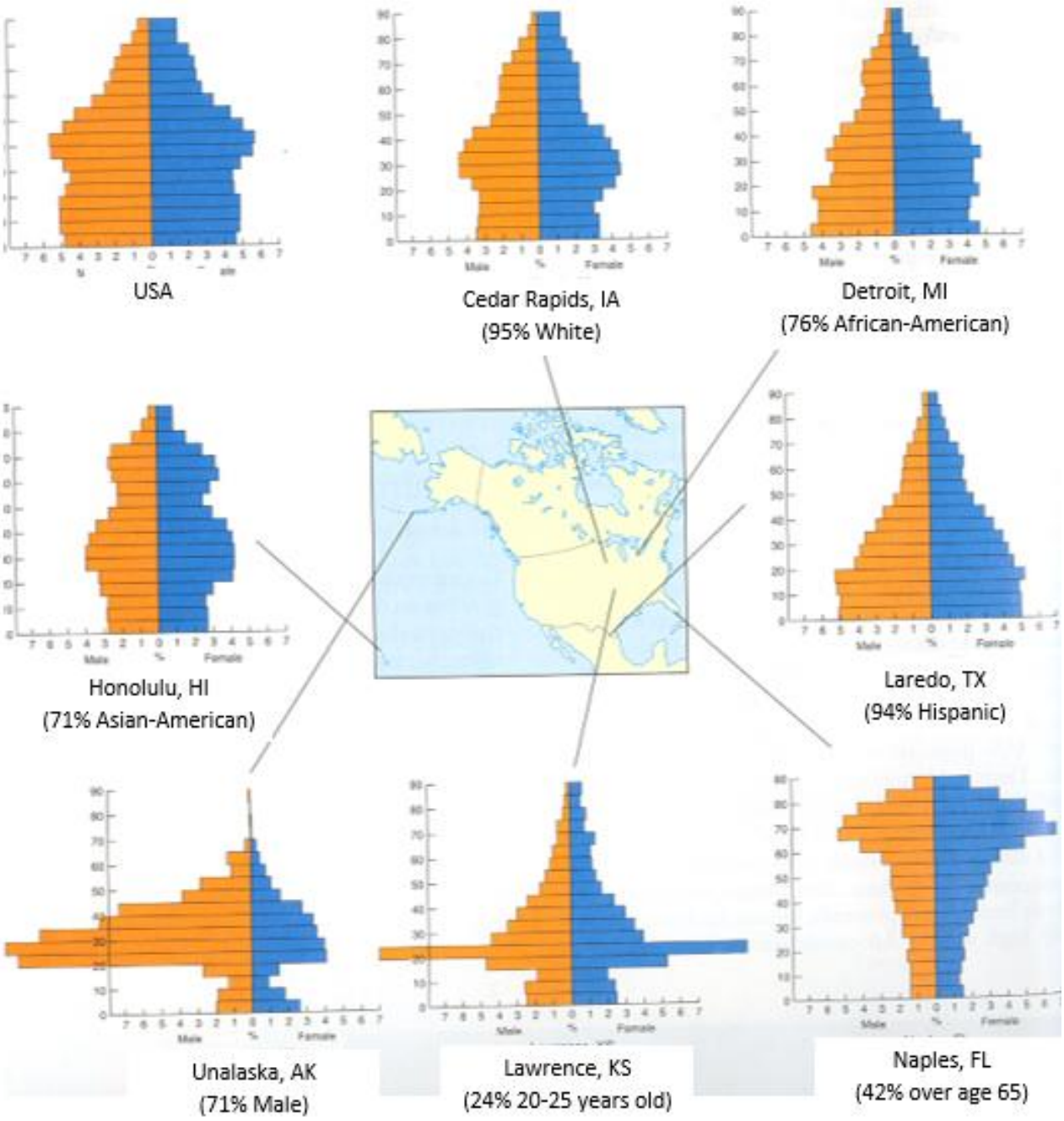








Community characteristics can also be shown.



E. Growth vs. Carrying Capacity

1. Will continued growth lead to global starvation, war over resources, and a lower quality of life?
2. Thomas Malthus claimed that the population would grow faster than the supply of food.
   a. population grows geometrically (exponentially)
   b. food sources increase arithmetically (linearly)
   c. Malthus predicted the following relationships between people and food in the future:

Today: 1 person, 1 unit of food
25 yrs from now: 2 peole, 2 units of food
50 years from now: 4 people, 3 units of food
75 years from now: 8 people, 4 units of food
100 years from now: 16 people, 5 units of food

Read pp. 60-61 about Neo-Malthusians and what the critics to these theories had to say.

F. World Health Threats

1. Epidemiology—a branch of medical science concerned with incidence, distribution, and control of diseases that affect large numbers of people. It relies heavily on geographic concepts such as scale and connection, because measures to control and prevent an epidemic derive from understanding its distinctive distribution and method of diffusion.
2. Epidemiologic Transition (pp. 64-68)
   a. Stage 1—Stage of _____
      1) Infectious and parasitic diseases were the main causes of human death
      2) Many deaths also occurred due to accidents and attacks by animals and humans
      3) Black Plague (or Bubonic Plague)
         a) Began in Central Asia in present day Kyrgyzstan
         b) Spread with the Tatar army and then Italian traders as they fled the army
         c) Spread from coastal towns to inland towns to rural areas
         d) half of Europe's population was wiped out between 1347-1350
         e) 5 other epidemics occurred by the end of the 14th century
   b. Stage 2—Stage of _____ (a disease that occurs over a wide geographic area and affects a very high proportion of the population)
      1) With the Industrial Revolution and improved living conditions infectious diseases began to decline but not equally
      2) Poor people in crowded industrial cities still had high death rates
      3) Cholera was one of the diseases that had a big impact on the urban poor during the 17th Century.
         a) resulted from the contamination of the drinking water by sewage runoff.
         b) cholera was eradicated by the end of the late 19th Century, however reappeared in rapidly growing cities in LDC's a century later.

c. Stage 3—State of _____

1) There is a decrease in infectious diseases and an increase in chronic disorders associated with aging.

a) cardiovascular diseases such as heart attackers

b) cancer

d. Stage 4—Stage of _____

1) degenerative diseases linger

2) life expectancy is extended and the degenerative diseases occur at an older age

a) medical advances—medicines and medical treatment

b) better health decisions—better diets, reduced use of tobacco and alcohol and exercise.

e. Stage 5—Reemergence of _____.
(possible stage or a temporary setback??)

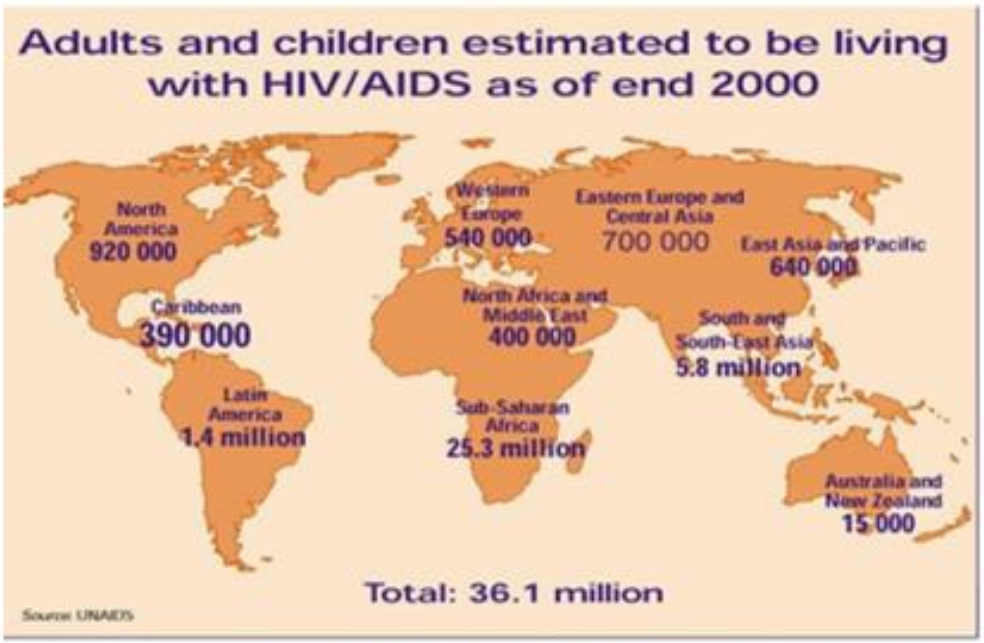
1) Three possible reasons

a) _____ –infectious diseases have evolved and changed in response resistance to drugs and insecticides. Malaria is an example

b) _____—long expensive treatments are economic burdens in LDC's for disease such as Tuberculosis.

c) _____—people carry diseases with them and expose others such as severe acute respiratory syndrome (SARS)

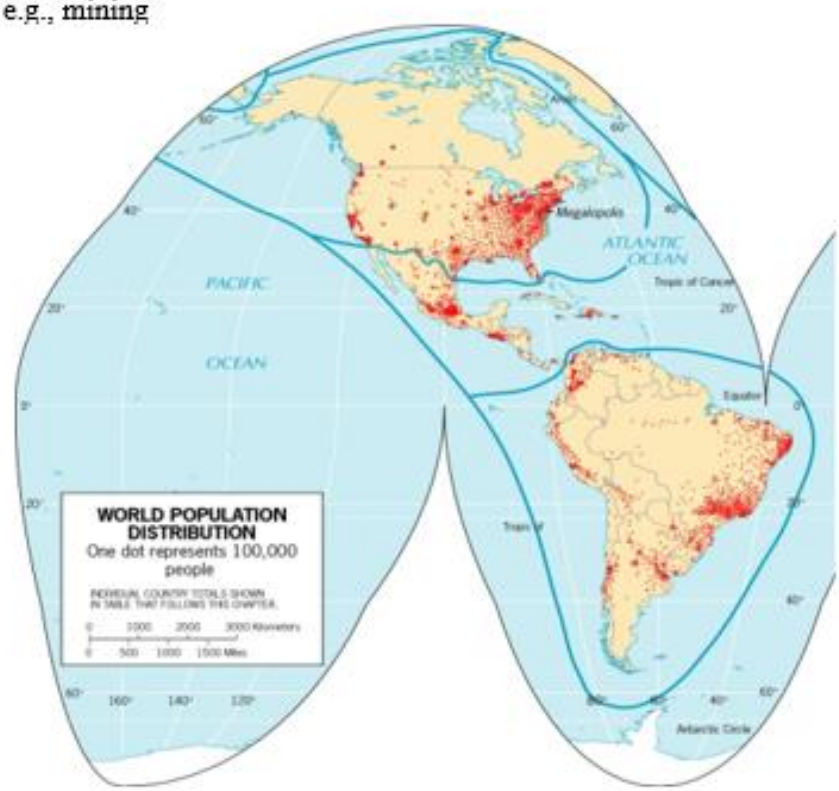
2) AIDS (look at the statistics on page 68-69)

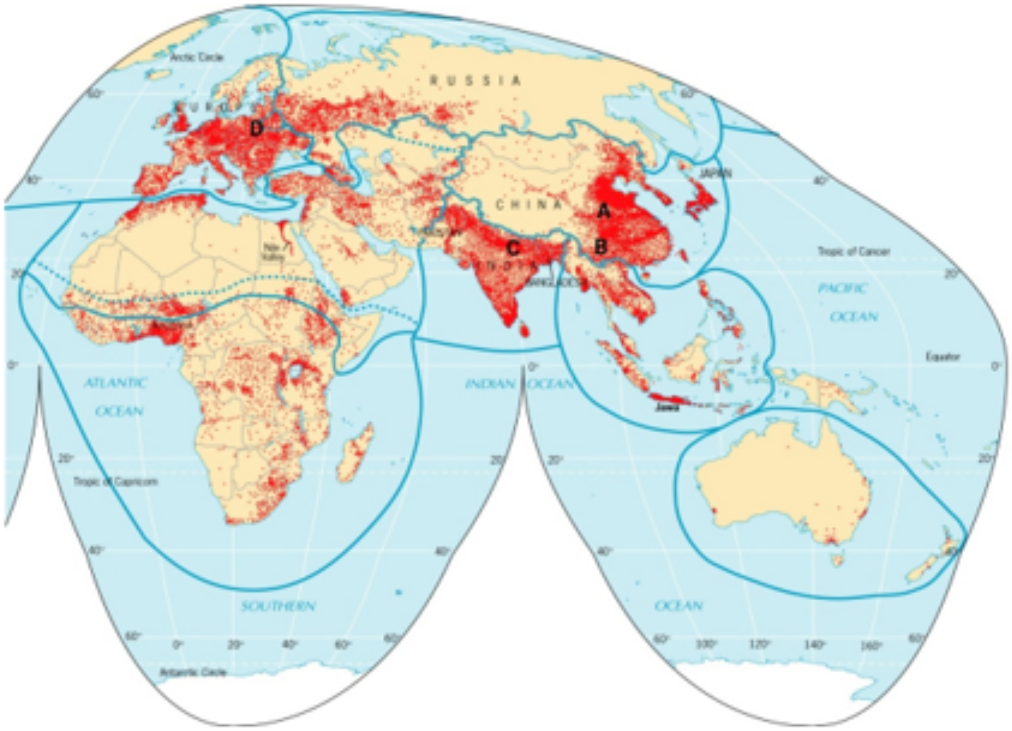


United Nations Department for Economic and Social Affairs
Population Division, www.un.org, October 9, 2006

G. Where People Live.—World Population Distribution—***page 46***

1. People are not evenly spread over the world.
   a. Some areas are heavily populated and some are very thinly settled (or uninhabited).
   b. habitable vs. uninhabitable; arable vs. non-arable
   c. We usually use the term *pop. Density* {[_____ _____] when looking at world pop.
      1) Arithmetic Density—_____
      2) Physiological Density—_____ _____—helps to determine the capacity of the land to yield enough food for the needs of the people.
      3) Agricultural Density—_____ _____. —helps explain how two countries with the same Physiological Density can produce significantly different amounts of food because of different economic conditions.
   d. Some continents are more densely settled--ex. Europe & parts of Asia.
   e. River valleys and coast lines are more densely settled.
   f. The interior (middle) part of continents are usually less densely settled.
   g. Harsh environments such as deserts or severely cold areas are less densely populated.
   h. Mountainous areas are less densely settled.
   i. Exception: where people have developed an alternative way to make a living, e.g., mining





2. Why are people not evenly spaced?
   a. People live where they can _____.
   b. Reason people live in certain areas.
      1) Good _____
      2) Good _____
      3) Good _____
      4) Good _____
   c. Reasons why people do <u>not</u> settle in other areas. (are uninhabited)
      1) Too _____--(ex. Sahara Desert)
      2) Too _____--(ex. Antarctica)
      3) Few _____--(ex. Patagonia Plateau)
      4) _____--Accessibility--(ex. Amazon Basin, Himalayas)

FOR THOUGHT AND DISCUSSION

China has instituted a strict policy to control its population. The policy has been a success in terms of achieving its stated goal of reducing population growth rates. However, this progress has come at enormous cost. What have been the advantages and disadvantages of China's one-child policy? On balance, is it a good idea? Drawing from what you learned about the Demographic Transition, could you think of other strategies China might employ to address its population problem?

[some negative consequences…some extreme measures some people have taken to ensure a baby boy are: 1) gender-selective abortion; 2) kidnapping a baby boy; 3) abandonment of baby girls; 4) female infanticide….all have resulted in an imbalance between the number of girls and boys]

FOR THOUGHT AND DISCUSSION

Family planning varies from country to country. In South Asia, India and Bangladesh have implemented programs that have had some success although their natural increase rates are still high. In India, they have had policies in place for 40 years. Their rates have dropped from 6% in the 1950's to approximately 3.2% in the early 2000's and 1.38% today. They have attempted several programs including education for women, sterilization, and birth control. Bangladesh dropped its natural increase from 6.3% in 1975 to 3.3% in the mid-90's to 2.09% today. The government has implemented a woman-to-woman information sharing strategy that is proving to be effective. Also, 50% of the married women use oral contraceptives. Their rates are still high in comparison to China's whose rate has dropped to 0.59%. Why has China's policies been so successful in comparison to India's? Might some of these family planning strategies be transferable to other countries (either from China, India or Bangladesh)? Why or why not?

Read Chapter 3 in the textbook

II. Movement of People.—Migration

A. Three main types of movements.

1. _____ movement--every day movements to and from work, school, stores, etc.
2. _____ movement--move for a certain period of time & then return, ie., students to college, military, migrant workers.
3. _____ movement –permanent relocation.

   a. _____—move from one home to another.
   b. _____-- movement into an area.
   c _____--movement out of an area (exit an area).

B. Migration has had a significant effect on world geography.

1. It has contributed to the evolution and development of separate cultures.
2. It has contributed to the diffusion of cultures by interchange and communication.
3. It has contributed to the complex mix of people and cultures found in different regions of the world today.

C. Reasons people migrate.

1. _____ migrations--there are **push** and **pull** factors.
   a. Can be categorized into three categories:
      1) _____
      2) _____
      3) _____

b. _____ factors-

1) _____
2) _____
3) _____
4) _____
5) _____
6) _____
7) _____
8) _____
9) _____
10) Etc.

c. _____ factors--attract people to move to an area.

1) _____
2) _____
3) _____
4) _____
5) _____
6) _____
7) _____
8) _____
9) _____
10) Etc.

c. Two other related concepts are **distance decay** and **intervening opportunity**.

1) Movers seek to minimize the friction of distance.
2) Migrants tend to chose the closer location rather than the farther if both are equal in other ways.
3) Information about distant areas is less complete and satisfying than awareness of near locations.

2. _____ migrations--person/people have absolutely NO choice.

a. _____
b. _____
c. _____

3. _____ migration-- Imposed on migrants by circumstances. —An imposed migration is one that is not entirely forced but which conditions make highly advisable.

D. Another way migrations can be classified is to divide them into **5 types**.

1. _____ Migration: in response to environmental conditions; usually undertaken by people at low levels of development.
2. _____Migration: compulsory transfer of a group of people, usually by a government.
3. _____ Migration: similar to Forced Migration but it differs in that migrants retain some ability to decide whether to move or not.
4. _____ Migration: individual movements for economic betterment.
5. _____ Migration: large numbers, entire communities, moving en masse without being fully informed on an individual basis of what to expect.
6. Each type can then be classified as either conservative or innovative.
   a. An innovative move is one in which _____
   b. A conservative move preserves _____
7. Classify these migrations by TYPE and decide whether the move was innovative or conservative.
   a. westward migration of pioneer farmers
   b. modern Americans moving to Alaska
   c. Mormon migration to Utah
   d. Middle East nomads moving to urban areas in the Persian Gulf
   e. African slave trade
   f. flight of ancient Britons at the arrival of the Saxon invaders
   g. Trail of Tears: relocation of the Five Civilized Tribes to Oklahoma
   h. subsistence slash burn farmers in the Amazon
   i. resettling of Germans, post WWII, because of border shifts in Poland

E. Migration occurs at different scales.

1. Intercontinental Movements: from continent to continent
2. Intracontinental and Interregional Migrations: between countries and within countries
3. _____ Migration: from the countryside (rural areas) to cities (urban areas). [Began on a large scale with the Industrial Revolution in the 18th century in the advance economies of Europe and the United States when job opportunities opened up in factories in urban areas. This process is now taking place in the developing economies of the world in South America, Africa, and Asia where industrialization is just now occurring.]

j. Russians eastward across the Asian continent;
k. Mexicans northward to the US;
l. Vietnamese, Central Americans, Cubans, Haitians to the US.
m. Refugees—page 93
n. Hong Kong Chinese moving to avoid China's take over

G. Spatially there are a number of patterns of migration.

1. _____migration: a series of small, less extreme locational changes are steps. [For example, if a person moves from a farm to a small town, then to a larger town and finally a city, it is an example of step migration.]
2. _____migration is the idea that there exists an established linkage or chain from the point of origin for migrants to their destination. The process of migration is assisted by migrants who already live in the destination. They help their friends and relatives to make the migration by providing them information, money, and place to stay, perhaps a job, and emotional support. People immigrate to locations where they find connections and a measure of familiarity.
   a. Chain migration establishes migration fields, or areas that dominate a locale's in- and out-migration patterns.
   b. For example, in Chicago, many Mexican migrants are from the state of Jalisco in Mexico. Jalisco is part of Chicago's migration field.

H. Observations of migration can be summarized into Laws of _____ (Ravenstein) Here is a summary of the laws in simple language.

1. Most migrants only go a short distance.
2. Longer distance migration favors big-city destinations. Large cities are migrant magnets.
3. Most migration proceeds step by step.
4. Most migration is rural to urban.
5. Each migration flow produces a counterflow.
6. Most migrants are adults; families are less likely to make international moves.
7. Most international migrants are young males.

I. There are a number of barriers to migration—pages 96-103
   1. Migration is limited by a knowledge of opportunities in other places, i.e., information.
   2. Migration is limited by costs, both financial and emotional. It is difficult to leave one's home to try a completely new way of life.
   3. Migration is limited by political restrictions, e.g., immigration policies
   4. Migration is limited by personal characteristics, e.g., culture, age, gender, education, and economic status.
   5. Well-educated males, between the ages of 18-34 who are affluent are MOST mobile; poorly educated females who are old and poor are the LEAST mobile.

J. The global refugee problem is increasing at a faster rate than world population; it is a massive, global crisis.
   1. Africa, Europe, Southwest Asia and Southeast Asia have the largest problems caused by conflicts and environmental crises.

Be sure you can trace the movements described above on maps

4. Local Residential Shifts: suburbanization, neighborhood relocations. [This kind of movement is significant in Western nations with free housing markets. **One sixth** of the US population changes residence each year. Why? Among the reasons for residential shifts are changes in life cycle, income level (either more or less money available to spend on housing), job location, perceived safety of neighborhood, better school district, convenient location etc.--These shifts produce distinct patterns of urban social geography.]

F. Migration Trends

1. Americans (US) are perhaps the most mobile people in the world--move on the avg. every 5 years.
2. Today, in the US, the primary trend is from rural areas [_____]

   to urban areas

   [_____].

   a. Before the Industrial Revolution very few people lived in urban areas. [in _____=95% -- rural & 5% -- urban]

   b. Urbanization began with the Industrial Rev.

   c. In _____, for the first time, more people lived in urban areas in the US. [51%--Urban & 49%--Rural]

   d. In _____, _____ was Urban and _____ was Rural.

3. Examples of migrations through time include

   a. the movement of the first human groups from their point of origin (East Africa?) to their present distribution around the entire globe
   b. the movement of peoples within early civilizations for trade, seeking raw materials, making war; the momentous movement of "barbarians" like the Huns, Goths, Visigoths, and Vandals out of Central Asia and into the Roman Empire bringing about its fall;
   c. the movement of the Islamic Moors across North Africa from Arabia and northward into Europe via Spain, into Central Asia via Turkey and into the Balkans;
   d. the Vikings migrating from modern day Denmark and Norway to Iceland, and from Norway and Sweden into Russia
   e. the movement on an unprecedented scale of Europeans to North and South America; British to Africa, Australia, and New Zealand; Africans to North and South America;
   f. Indians (from what is today India/Pakistan/ Bangladesh) to East Africa, Southeast Asia, the Caribbean, Fiji--all parts of the British Empire;
   g. Chinese throughout Southeast Asia;
   h. Jews from Europe to Israel;
   i. Americans and Canadians westward across the North American continent;

Unit III. Cultural Patterns and Processes

In this section of the course we will be defining culture. We will then use these definitions of culture to explain world culture patterns, including variations in gender roles, changes in culture (independent invention and diffusion), and the diffusion of culture traits (acculturation, assimilation, syncretism). Cultural convergence and interdependence with improved global communication and transportation networks will also be discussed. And finally we will define culture regions (local to global scale).

> *Understanding the components and regional variations of cultural patterns and processes is critical to human geography. Students begin with the concepts of culture and cultural traits and learn how geographers assess the spatial and place dimensions of cultural groups as defined by language, religion, ethnicity, and gender, in the present as well as the past.*
>
> *The course explores cultural interaction at various scales, along with the adaptations, changes, and conflicts that may result. The geographies of language, religion, ethnicity, and gender are studied to identify and analyze patterns and processes of cultural differences. Students learn to distinguish between languages and dialects, ethnic religions and universalizing religions, and folk and popular cultures, as well as between ethnic political movements. These distinctions help students understand the forces that affect the geographic patterns of each culturalcharacteristic.*
>
> *Another important emphasis of the course is the way culture shapes relationships between humans and the environment. Students learn how culture is expressedin landscapes and how land use, in turn, represents cultural identity. Built environments enable the geographer to interpret cultural values, tastes, symbolism, and beliefs. For instance, when analyzing Amish communities in the Western Hemisphere, it is important to understand how their unique values and practices (e.g., lack of power lines to buildings and the use of preindustrial forms of transportation) influence the cultural landscape.*
>
> [Course Description: Human Geography, 2015,
>
> The College Board, Advanced Placement Program.]

ENDURING UNDERSTANDING

A. Concepts of culture frame the shared behaviors of a society.

B. Culture varies by place and region.

LEARNING OBJECTIVES

- Explain the concept of culture and identify cultural traits.
- Explain how geographers assess the spatial and place dimensions of cultural groups in the past/present.
- Explain how globalization is influencing cultural interactions and change.
- Explain cultural patterns and landscapes as they vary by place and region.
- Explain the diffusion of culture and cultural traits through time and space.
- Compare and contrast ethnic and universalizing religions and their geographic patterns.
- Explain how culture is expressed in landscapes and how land and resource use represents cultural identity.
- Compare and contrast popular and folk culture and the geographic patterns associated with each.

ESSENTIAL KNOWLEDGE

- Culture is comprised of the shared practices, technologies, attitudes, and behaviors transmitted by a society.
- Cultural traits are individual elements of culture and include such things as food preferences, architecture, and land use.
- Geographers use maps and the spatial perspective to analyze and assess language, religion, ethnicity, and gender.
- Communication technologies (e.g., the Internet) are reshaping and accelerating interactions among people and places and changing cultural practices (e.g., use of English, loss of indigenous languages).
- Regional patterns of language, religion, and ethnicity contribute to a sense of place, enhance place making, and shape the global cultural landscape.
- Language patterns and distributions can be represented on maps, charts, and language trees.
- Religious patterns and distributions can be represented on maps and charts.
- Ethnicity and gender reflect cultural attitudes that shape the use of space (e.g., women in the workforce, ethnic neighborhoods).
- Language, religion, ethnicity, and gender are essential to understanding landscapes symbolic of cultural identity (e.g., signs, architecture, sacred sites).
- Types of diffusion include expansion (contagious, hierarchical, stimulus) and relocation.
- Language families, languages, dialects, world religions, ethnic cultures, and gender roles diffuse from cultural hearths, resulting in interactions between local and global forces that lead to new forms of cultural expression (e.g., lingua franca).
- Colonialism, imperialism, & trade helped shape patterns & practices of culture (e.g., language, religion).
- Acculturation, assimilation, and multiculturalism are shaped by the diffusion of culture.
- Ethnic religions (e.g., Hinduism, Judaism) are generally found near the hearth or spread through relocation diffusion.
- Universalizing religions (e.g., Christianity, Islam, Buddhism) are spread through expansion and relocation diffusion.
- Cultural landscapes are amalgamations of physical features, agricultural and industrial practices, religious and linguistic characteristics, and other expressions of culture (e.g., architecture).
- Folk culture origins are usually anonymous and rooted in tradition and are often found in rural or isolated indigenous communities.
- Popular culture origins are often urban, changeable, and influenced by media.

BASIC VOCABULARY AND CONCEPTS

CONCEPTS OF CULTURE:

Acculturation
Assimilation
Cultural adaptation
Cultural core/periphery pattern
Cultural ecology
Cultural identity
Cultural landscape
Cultural realm
Culture
Culture region
- Formal – core, periphery
- Functional – node
- Vernacular (perceptual) – regional self awareness

Cultural Integration
Core, periphery, domain
Sequent occupance
Cultural Traits
Syncretism
Diffusion types
- Expansion – hierarchical, contagions, stimulus
- Relocation

Innovation adoption
Maladaptive diffusion
Cultural Transition Zones

FOLK & POPULAR CULTURE:

Adaptive strategies
Anglo-American landscape characteristics
Architectural form
Built environment
Folk culture
Folk food
Folk house
Folk songs
Folklore
Material culture
Nonmaterial culture
Popular culture
Survey systems
Traditional architecture
Cultural landscapes
Sense of place
Cultural Hearth
Role of diffusion and globalization and popular culture
Role of diffusion and globalization and folk culture
Impact on natural resources

LANGUAGE:

Creole
Dialect
Indo-European languages
Isogloss
Language
Language family
Language group
Language subfamily
Lingua franca
Linguistic diversity
Mono-/multilingual
Official language
Pidgin
Toponymy
Trade language
Distribution of languages
Role of isolation and interaction on languages
Franglais and Spanglish
Extinct languages
Linguistic cultural landscapes

RELIGION

Animism
Buddhism
Cargo cult pilgrimage
Christianity
Confucianism
Ethnic religion
Exclave/enclave
Fundamentalism
Geomancy (feng shui)
Hadj
Hinduism
Interfaith boundaries
Islam
Jainism
Judaism
Mono-/polytheism
Mormanism
Muslim pilgrimage
Muslim population
Proselytic religion
Reincarnation
Religion (groups; places)
Religious architectural styles
Landscapes of the dead
Religious conflict
Religious culture hearth
Religious toponym
Sacred space
Shamanism
Secularism
Sharia law
Shintoism
Sikhism
Sunni/Shia
Taoism
Theocracy
Universalizing
Zoroastrianism
Origin and Distribution
Religious cultural Landscapes
Religious cultural region

ETHNICITY

Acculturation
Adaptive strategy
Assimilation
Barrio
Chain migration
Cultural adaptation
Cultural shatterbelt
Ethnic cleansing
Ethnic conflict
Ethnic enclave
Ethnic group
Ethnic regions
Ethnic homeland
Ethnic landscape
Ethnic neighborhood
Ethnicity
Ethnocentrism
Ghetto
Plural society
Race
Racism
Segregation
Social distance
Distribution of ethnicities
Sequent occupance
Ethnic exclaves and Enclaves

GENDER

Dowry death
Enfranchisement
Gender
Gender gap
Infanticide
Longevity gap
Maternal mortality rate

STUDY QUESTIONS

1. Define culture. Provide some examples explaining the processes of cultural diffusion.
2. Why is the mosaic of language and religion of interest an value to the cultural geographer?
3. What are the major components that make up the definition of language?
4. What is a standard language?
5. Study a language map of Europe and explain how it is a diffusion model.
6. What are some of the theories of language diffusion? What analysis has Colin Renfrew, the British scholar, brought to the interpretation of the search for the source for a superfamily of languages?
7. What is toponomy? What does it reveal about the culture of a place?
8. Why are place names categorized?
9. Define religion. What are some of the ways religions manifest themselves within a culture?
10. Where are source areas of the world's major belief systems? Explain how they were diffused.
11. Provide examples to explain the differences between global and regional religions.
12. What is secularization? Why is it a topic of inquiry for human geographers?
13. Describe some of the cultural dimensions of some key gender issues that have geographic implications.
14. Describe how a cultural landscape can also be a symbolic landscape. Explain how such landscapes relate to popular and folk culture.
15. Provide some examples of illustrating how culture and environment interact. Assess some positive and negative aspects of that interaction.
16. What part(s) of the world are under Muslim rule? Christian? Buddhist? Hindu? Etc.? How have the various belief systems influenced those regions?
17. What conflicts are occurring (or have occurred) in the world based on religion or ethnicity?
18. What are cultural and global religions or ethnic and universalizing religions?
19. Not all people view the introduction and diffusion of popular customs as positive.
    A. What are some of the negative impacts of the diffusion of popular customs on a culture (give at least three)?
    B. Why do the leaders of some developing countries fear the loss of folk culture?

20. Relate the cultural landscape approach to the origin, diffusion, distribution and impact on the environment of folk and popular cultures.
    A. What is one of the major differences in the origin of a popular cultural trait compared to a folk cultural trait?
    B. What is one of the major differences in the process of diffusion of popular culture compared to a folk custom?
    C. What generalization can be made about the distribution of folk and popular cultures in a region?
    D. Discuss in detail using specific examples of how folk and popular cultures differ with respect to the impact on the environment.
21. Why is language a major part of culture? Why is it a good indicator of migration?
22. Communication is very important between people of the world
    A. What language has developed as the language of international communication?
    B. Why has this language developed as a lingua franca?
    C. Why do you think this language replaced French in this role?
23. People's beliefs are a very important part of our culture.
    A. Discuss the difference between universal religions (global) and cultural (ethnic) religions.
    B. Give three examples of each and explain how they have or have not diffused.
24. Our beliefs often influence how we react to certain situations in our lives.
    A. How has religion been a source of territorial conflict among people?
    B. Discuss three current conflicts occurring in the world today. Be sure to identify the religions and groups involved in each conflict as part of your discussion.
25. Many people feel that globalization threatens folk cultures around the world. For the following categories describe how and why globalization can have a negative impact on a specific folk culture.
    A) gender roles.
    B) loss of traditional values.
    C) language.
    D) environment.
25. Discuss the role relocation and expansion diffusion have played with respect to the geography of religion for the following regions:
    A) North America and Christianity.
    B) Asia and Buddhism.
    C) North Africa, Southwest, Central, South, and Southeast Asia and Islam.
26. English is the most widely spoken language in the world. Explain how isolation and interaction influence the pronunciation, spelling, and usage of English. Give specific examples.
27. Discuss and give two specific examples of how popular culture impacts the cultural landscape for each of the following categories:
    A) a mega city in a developing country.
    B) a modern suburb in the United States.
    C) an urban area in Japan.
28. Discuss the origin, diffusion, and impact on the cultural landscape for one of the following:
    A) folk housing styles in the United States.
    B) Buddhism in Asia.
    C) English in South Asia

NOTES

Spatial aspects of human cultures are part of the regional differences which are part of human geography.

I. Primary questions

- _____ ?
- _____ ?
- _____ ?

II. Definitions

A. Terms

1. **Culture-**_____
2. **Anthropology--**_____
3. **Archaeology—**_____
4. **Cultural traits—**_____.
5. **Core—**_____.
6. **Cultural Region—**_____.
7. **Cultural Diffusion—**_____.
8. **Cultural Hearth—**_____

9. **Acculturation—**_____
10. **Enculturation—**_____
11. **Cultural Assimilation—**_____
12. **Structural Assimilation—**_____
13. **Prejudice--**_____
14. **Bias--**_____
15. **Stereotype--**_____
16. **Ethnocentric--**(***ethno***=_____; ***centric***=_____)

_____

17. **Xenophobia**--(***xeno***=_____; ***phobia***=_____)

_____ 

18. **Region**—_____

19. **Formal Region**—_____

20. **Functional Region**—_____

21. **Perceptual Region**—_____

_____ **vernacular region.**

B. Facts
   1. what culture is NOT
   2. what culture IS
   3. Culture is learned.
      a. We learn from

      b. Race is **NOT** culture.

III. Ways t organize ideas on culture:

A. Four Parts of Culture
   1. B _____
   2. I _____
   3. L _____
   4. T

B. ABC's of Culture
   1. **A**_____
   2. **B**_____
   3. **C**_____
   4. **D**_____
   5. **E**_____
   6. **F**_____
   7. **G**_____
   8. **H**_____
   9. **I**_____
   10. **J**_____
   11. **K**_____
   12. **L**

C. Three subsystems
   1. mentifacts (ideological subsystem)
      a. _____
      b. _____
   2. sociofacts (sociological subsystem)
      a. _____
      b. _____
      c. _____
   3. artifacts (technological subsystem)
      a. _____
      b. _____

D. Mentifacts and World View
   1. American world view:
      a. _____
      b. _____
      c. _____
   2. Chinese world view:
      a. _____
      b. _____
      c. _____
   3. Geographic expressions of different world views
      a. _____
      b. _____
      c. _____
      d. _____
      e. _____

IV. Cultural Landscape

"...forms imposed on the physical landscape by the activities of (hu)mans." Carl Sauer

A. Human made landscape created by _____

B. Visual manifestation of culture and its interaction with the environment

C. _____: each group that occupies and dominates an environment leaves its imprint

D. Description of places AND the processes which produce each place.

E. How Do Cultures Develop? General vs Specific Development

1. General Evolution of Cultures

   a. Culture Hearths--ancient and modern

   b. Different theories of development

2. Specific Evolution of Cultures--development of a culture as it adapts to a new environment

F. **Cultures are changing.**

1. _____ within a society.—independent invention—innovation

   ideas created within a social group itself

2. _____ from outside a society.

   a. _____--process by which innovation is transmitted across space (spatial interaction)

      1) _____diffusion

         a)—can be _____ when spreads uniformly throughout an area

         b)—can be _____ through established structure, e.g., urban centers

      2) _____ diffusion

      3) _____ diffusion

   b. Diffusion or independent invention?

      1) pyramids, Egypt and Central America
      2) agriculture

Cultural Change and Convergence

- acculturation
- assimilation
- ethnocentrism

3. Factors that affect diffusion…

a. _____ d. _____

b. _____ e. _____

c. _____ f. _____

g. _____

1) _____

2) _____

3) _____

FOLK AND POPULAR CULTURE—Material Culture **Read Chapter 4**

I.. Two basic categories that differ according to scale

A. Folk Culture—_____

B. Popular Culture—_____

II. Origins

A. Folk Cultures——_____

_____

Example Folk Music—Folk songs are usually composed _____ and transmitted _____. They are often derived from events in daily life. Folk songs tell a story about daily activities such as _____, _____ or mysterious events such as _____ and _____. Folk customs may have multiple origins for example Country Music has _____ hearths

Popular Cultures——_____

_____

Example Popular Music—Popular music is written by specific individuals for _____ of people.

III. Diffusion

A. Folk Cultures—_____ Example—Amish

B. Popular Culture—typically follows _____ from hearths to major cities and then down through the use of _____

Example—Sports

IV. Location?

A. Folk Culture—develop in _____

B. Physical Environment Influences and Social Influences
   1. Food Preferences & Taboos
   2. Folk Housing
      a. Building Materials
      b. Form & Orientation
   3. US Folk House Forms –pp. 124-125

C. Popular Culture—widely distributed
   1. Popular Housing styles
   2. Clothing styles
   3. Food customs

D. TV's Role

V. Problems and Conflicts
   A. Threat to Folk Culture
      1. Loss of Traditional Values
      2. Change in Gender Rules
      3. Threat of "western" ideas

   B. Environmental Impact of Popular Culture

NOTES ON LANGUAGE ***Read Chapter 5***

Can culture exist without language? Why or why not?

A. Definition: _____
(written, verbal, or gestures)

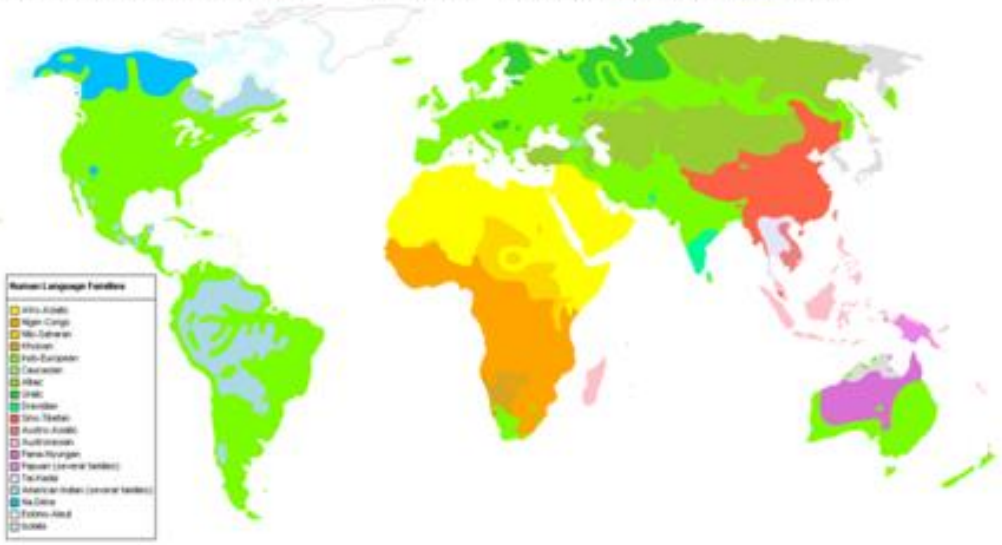
B. Constantly changing.

C. Linguist [_____] divide language into three levels.
   1. _____
   2. _____
   3. _____ (regional variants of a standard language) [may be accent differences and /or vocabulary differences. The use of different words for things can be mapped. The areal extent of a particular word can be mapped. The limits are known as "_____" (flock vs. herd)]

D. There are between _____ languages in use today. Top 14 languages spoken by _____ of world population; bottom 500 languages divided among no more than 1 million people in remote regions of Asia, Africa, South America, and Australia. As many as _____ languages in prehistoric times.

E. Classify standard languages—Taxonomy of languages:

1. _____ (are related and share a common origin) [example--_____ Language Family]
2. _____ [example--_____]
3. _____ [example--_____]
4. _____ [example--_____]
5. dialects and regional variations [example—New England vs. the South]



Look at pp 146-147

page 144-145

F. Good indicator of human migrations.

1. _____.
2. Can trace migrations such as the Indo-European Family.
   a. **originated** _____.
   b. originally spread _____
   c. then spread to _____

G. Distribution of languages [clue to the past history of culture groups, their migration, contact/isolation, former distribution, etc. Spatial signals]

1. The Indo-European family includes the _____ of any family. It includes subfamilies and individual languages stretching form Europe and Russia into South Asia
2. The Sino-Tibetan family has the second greatest number of speakers after the Indo-European family.
3. The Sino-Tibetan region is much more compact. Mandarin Chinese is the single _____ official language in the world
4. Arabic is the principal Hamito-Semitic language and is associated with the diffusion of _____ in north Africa and southwest Asia. The diffusion of Malayo-Polynesian across the great expanse of the Pacific Islands is also noteworthy.
5. Individual languages develop in relatively isolated cultures over long periods of time. Diffusion of language is often _____, as in the case of Malayo-Polynesian, or _____, as in the case of Latin in Europe or Indo-European languages in the Americas.

H. ALSO a barrier

I. Languages are constantly changing but at different rates
   1. Languages differentiate over time. The greater the time lapse, the more individual languages become, e.g., Latin and Romance languages
   2. regions with languages that are somewhat different but closely related: recent migration—regions with languages of common roots yet strongly different: modification over long time
   3. Cultural patterns are not static in time or space: language use and spatial distribution changing because of demographic changes and aggressive spread of second languages

J. Usually, you will find more than one language spoken in a country.

1. **Multilingualism**--_____.
2. **Monolingualism**--_____.
3. Bilingualism—_____.
4. Nations can be classified as either mono, bi, or multi lingual.

5. Where do you find multilingual nations? Common in _____ where different culture groups were forced together by foreign interests and also found in nations _____.

K. Communication & Trade

1. Speakers of different languages may create a simplified mixed language to facilitate communication. A _____ evolves from a _____, but is more fully developed

2. A _____ is an established language used by speakers of different languages to communicate regarding trade and other purposes. The lingua franca of the modern world is English. This derives from the influence of the former British Empire and the global commercial and scientific predominance of the United States in the post-World War II period. What are some others?

3. English as the global lingua franca can be disadvantageous to Americans. Our culture is understood and therefore penetrable by many, yet since we do not have to learn foreign languages to communicate, other cultures remain not understood and largely impenetrable to us

NOTES ON BELIEFS (RELIGION) **Read Chapter 6**

I. Belief Systems—What people believe influence _____ _____ etc.

II. World Religions

A. Typology based on "_____"

1. _____ Religions (aka _____ Religions)— _____

a. _____--most widely distributed--dominates in Europe, North & South America, Australia, South Africa, & Russia.

b. _____--dominates North Africa, SW Asia, & Indonesia—fastest growing

c. _____--originated in India but is now in the minority in India--strong in SE Asia, China & Japan.

2. _____Religions (aka _____ Religions) dominates one national culture

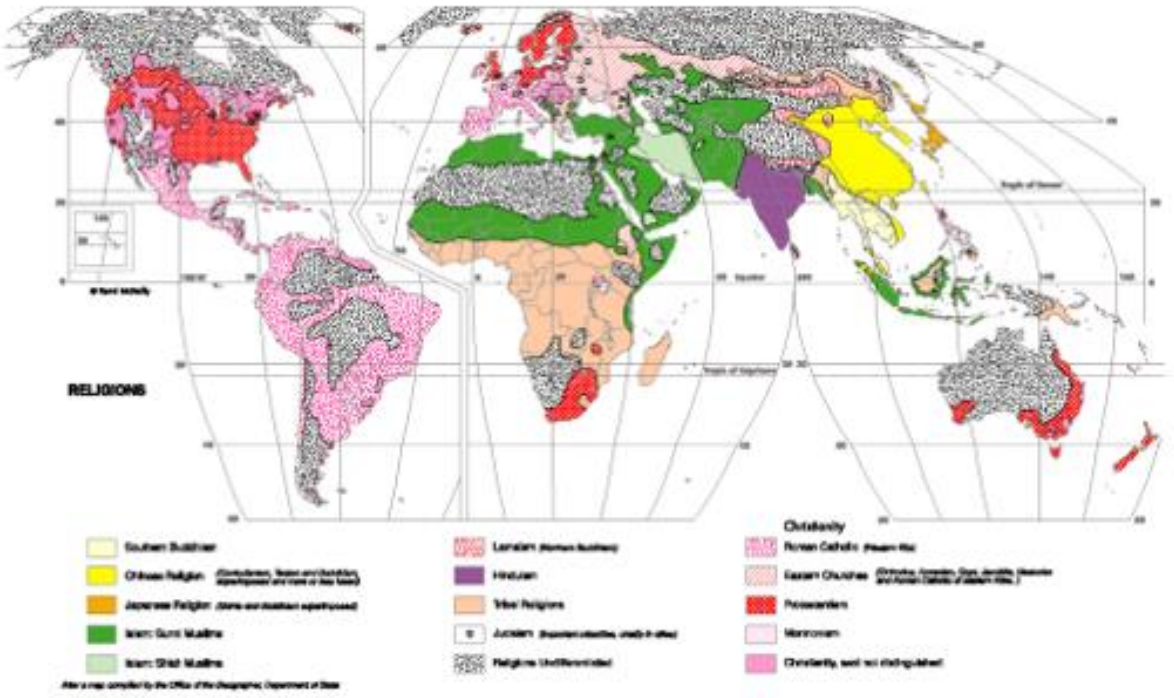
a. _____India

b. _____China

c. _____ Japan

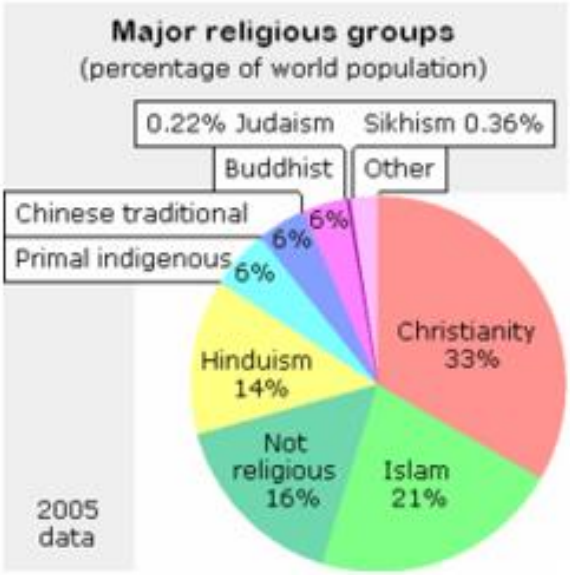
d. _____ Israel & around the world.

3. _____ Religions (aka _____ Religions) small and comparatively isolated
   a. Shamanism is a Traditional Religion but not all Traditional Religions are Shamanistic—indifference to religion or religious ideas—about 2 B people are not associated with a world religion.
   b. Today primarily practiced in
      1) Africa
      2) South America
      3) SE Asia
      4) Northern Australia
4. Secularism
   a. _____
   b. growing in number



pages 184-185

B. Can also be classified based on "Focus"
   1. Monotheistic Religions—_____
   2. Polytheistic Religions—_____
   3. Animistic Religions—_____, such as mountains, boulders, rivers and trees, possess spirits and should therefore be revered.



C. Characteristics of Religions [in chronological order and geographic location]]

1. **Hinduism**

   a. Origin
      1) Indus Valley (in what is today Pakistan)
      2) 4000 YBP
   b. Major Belief
      1) believe in many lesser gods--polytheistic
      2) believe Brahma "The All" is the overall god.
      3) believe in _____
      4) _____ (no longer "legal")
         a) The _____ caste is the highest caste
         b) Lowest caste are the "_____"
      5) _____--all life is sacred
      6) Vedas--sacred books of hymns, chants, stories, etc.
      7) 3 beliefs (_____)

The largest religious gathering on Earth. Around 70 million Hindus from around the world participated in Kumbh Mela at one of the Hindu Holy city Prayag (India).

A Holy Man prays in the Ganges River during Magh Mela

8) **Sikkism**—emerged as a compromise religion—cross between the monotheism of Islam (disapprove of the worship of idols and dislike the caste system) and the concepts of reincarnation and karma

A Sikh man at the Harimandir Sahib, known popularly as the Golden Temple, is a sacred shrine for Sikhs.

c. Diffusion

1) During colonial period Indians were transported to East and South Africa, the Caribbean, northern South America and the Pacific Islands as workers
2) Did not result in new Hindu regions—few non-Indians were converted.

d. Cultural Landscape

1) meals are religious rites—no meat, etc.
2) Pilgrimages important—Ganges River is considered important
3) Festivals and feasts
4) Temples
   a) the erection of a temple bestows merit on the builder and will be rewarded—so the landscape is dotted with countless shrines
   b) should have minimal disruption of the natural landscape
   c) should be in a "comfortable" position (possibly under a large, shady tree) and near water
   d) small offerings must be made frequently

Pura Luhur Uluwatu Temple, Bali, Indonesia

The Vishnupad Temple, Gaya

Brihadeshwara temple

Kailasa Temple in the Ellora Caves Complex

Jagannath Temple at Puri

The Gopuram of temples, in south India, are adorned with colorful icons depicting a particular story surrounding the temple's deity

2. Buddhism

a. Origin
   1) India (now Nepal)—Varanasi (formerly--Benares)
   2) 6th Century BC
   3) by Prince Siddhartha (known as Gautama by his followers) —born in Lumbini

b. Major Beliefs
   1) Became _____-- "the Enlightened One" or "the Awakened One"
   2) Spoke out against the _____ system
   3) Believed that a better way of life can be achieved through _____
   4) Believed all life is _____
   5) Believed in _____
   6) Believed that _____ could be achieved through
      a) knowledge (especially self knowledge)
      b) elimination of greed, craving, and desire
      c) complete honesty and
      d) never hurting another person or animal

   7) Numerous branches but two main branches
      a) Theravanda Buddism
         11) Sri Lanka, Myanmar, Thailand, Laos, and Cambodia
         22) salvation is _____
         33) achieved through good behaviors and religious activities
         44) includes periods of service as a monk or nun.
      b) Mahayana Buddism
         11) Vietnam, Korea, Japan and China
         22) salvation can be _____
         33) Buddha is seen as a divine savior.
         44) do not serve as monks but spend much time in personal meditation and worship
   8) Other branches
      a) Lamaism of Xizang (Tibet)—combines monastic Buddhism with the worship of local demons and deities
      b) Zen Buddhism—contemplative form that is prevalent in Japan

Young Tibetan Buddhist monks of Drepung

Rock carvings at Dazu near Chongqing, China.

c. Diffusion

1) strong in Sri Lanka, SE Asia, Nepal, Tibet, Korea (China) and Japan
2) practically extinct in India
3) revival today—continuing to expand although experiencing conflict in modern day hearth (Cambodia, Laos, Vietnam, and Thailand) and in Tibet

d. Cultural Landscape

1) The Bodhi tree is revered and protected because Buddha is believed to have received enlightenment under the tree (Bodh Gaya) in India
   a) Bodh Gaya is the object of pilgrimages
   b) the Bodhi tree has diffused as far as China and India with the people
2) Shrines include…
   a) bell-shaped structures that protect burial mounds
   b) temples that enshrine images of Buddha in his familiar cross-legged pose
   c) large monasteries and
   d) Pagoda –Buddhism's most familiar structure
      11) shaped is derived from relic (often funeral) mounds of old
      12) every fragment of its construction is a meaningful representation of Buddhist philosophy.

Pagoda in China

3. East Asia Beliefs

a. **Confucius** (551-489 BC) and his followers.

1) Constructed a blue print for Chinese civilization in almost every area-- philosophy, government, education, law, literature, religion, morality, etc.
2) Denied the divine ancestry of China's aristocratic rulers
3) Believed _____
   _____
4) Service to one's fellowman is more important than
   _____
5) Believed in harmony in _____
6) Temples were built in his honor
7) In and Out at different times in history

b. **Taoism**

1) follow the teachings of Lao-Tsu
2) Means "_____"
3) Believe in harmony _____
4) focus on the oneness between _____.
5) Balance between Yen (-) and Yang (+)
6) Proper form of political rule
7) Virtues were simplicity and spontaneity, tenderness and tranquility
8) Competition, possession, and even the pursuit of knowledge were to be avoided.
9) Evils were war, punishment, taxation, and ceremonial ostentation
10) Many began to worship Lao-Tsu as a god (he would not have approved)

White Cloud Monastery, Beijing

c. *Buddhism blended with Confucianism and Taoism to develop a "Chinese way of life"—with a reverence for the aged, ancestors, and nature and a belief in harmony. (Although officially no religion is practiced in China today)*

d. Cultural Landscape
   1) Nature is a predominant theme in art and literature
   2) Architecture balances with nature.

4. Shintoism

a. in Japan
b. _____
c. Emperor worship--believe

   _____

d. A reverence for

e. No longer the official state religion since WWII—Some practices are no longer allowed—such as the emperor's right for divine descent

The Usa Shrine is one of the most important shrines in Shintoism and is dedicated to the god Hachiman, who is the god of war and the divine protector of the Japanese islands and the Japanese people

5. Judaism

a. Origin

1) _____—Jews were one of several nomadic Semitic tribes

2) _____—capital

3) 2000 B.C.

4) do not actively seek converts

The dome of the Hurva dominated the Old City of Jerusalem skyline.

Remuh Cemetery is an old Jewish cemetery in Krakow's Kazimierz district

Western Wall by night

b. Major Beliefs

1) believe in _____

2) follow the rules of behavior based on the laws written in the _____

3) follow the teachings of _____

4) believe in the prophecy of _____ (10 commandments, etc.)

5) believe in eternal life (heaven)

6) 3 branches (Orthodox, Conservative, & Reformed)

7) 18 million adherents today

c. History

1) Moses led them from Egypt, where they had been enslaved, to Canaan

2) Split in2 branches—Israel and Judah

3) Israel was wiped out by enemies

4) Judah was conquered by the Babylonians

5) Would come back together and rebuilt their capital—_____

6) Romans took over and Jews fled—area became known as _____

a) 1 group—Ashkenazim—went north into Central Europe

b) 1 group—Sephardim—went to North Africa an into the Iberian Peninsula

c) Both were persecuted, denied citizenship, driven into ghettos, and were massacred.

7) Area became part of the _____ Empire.

8) Then the _____Empire took over—they backed the Germans during WWI.
9) Palestine became a _____ territory.
10) Zionism began—an ideology that said that the Jews should not be absorbed into other societies—they wanted their own country.
11) WWII occurred. The Holocaust occurred.
12) UK pulls out of Palestine and goes to the newly formed UN for a solution on how to form a country just for the Jews.
13) UN divides the land and forms Israel in 1948.
14) Palestine (Muslims) say no. UN says go. Palestine ceases to exist.
15) Conflict continues.

6. Christianity

a. Origin
   1) _____
   2) 2000 YBP

b. Major Beliefs
   1) believe in _____
   2) believe that _____ is the Son of God.
   3) follow the teachings of _____
   4) follow the
   5) Beginnings in the Jew's search for deliverance from Roman oppression.
   6) 3 branches
      a) Eastern or Orthodox Church--centered in _____ -- important in Greece, E. Europe, & Russia
      b) Roman Catholicism (Catholic Church)--centered in _____ -- S. Europe, Latin America, N. America, etc.
      c) Protestant Church--15th and 16th Century protesting the control of the Pope--by Martin Luther in Germany, Calvin, etc.--in N. Europe, N. America, Australia, etc.

Israel Jerusalem Church of All Nations Christianity Garden at Gethsemane

c. Diffusion

1) Dissemination through expansion and relocation diffusion.

2) Spread with _____

3) Today _____

d. Cultural Landscape
   1) cathedrals, churches and monasteries used to dominate the landscape
   2) towers, steeples and spires
   3) The Reformation, rise of secularism and the decline of organized religion has had an impact on the landscape.
      a) churches are not as large, opposing or as ornate—also still can be seen in older communities

      b) today often blend in with the local architecture styles
   4) No other faith uses as much land for burials as Christians
      a) Hindus, Buddhists and Shintoists cremate the dead (prevails in regions where living space and farmland are at a premium)
      b) Christians bury their dead, often with elaborate rituals and in park-like cemeteries.
      c) Class differences are reflected in the size of tombstones and location of graves.
   5) Place names often reflect religious influences.
   6) ***Be sure to look at the map of Major Religious Regions in the US.***

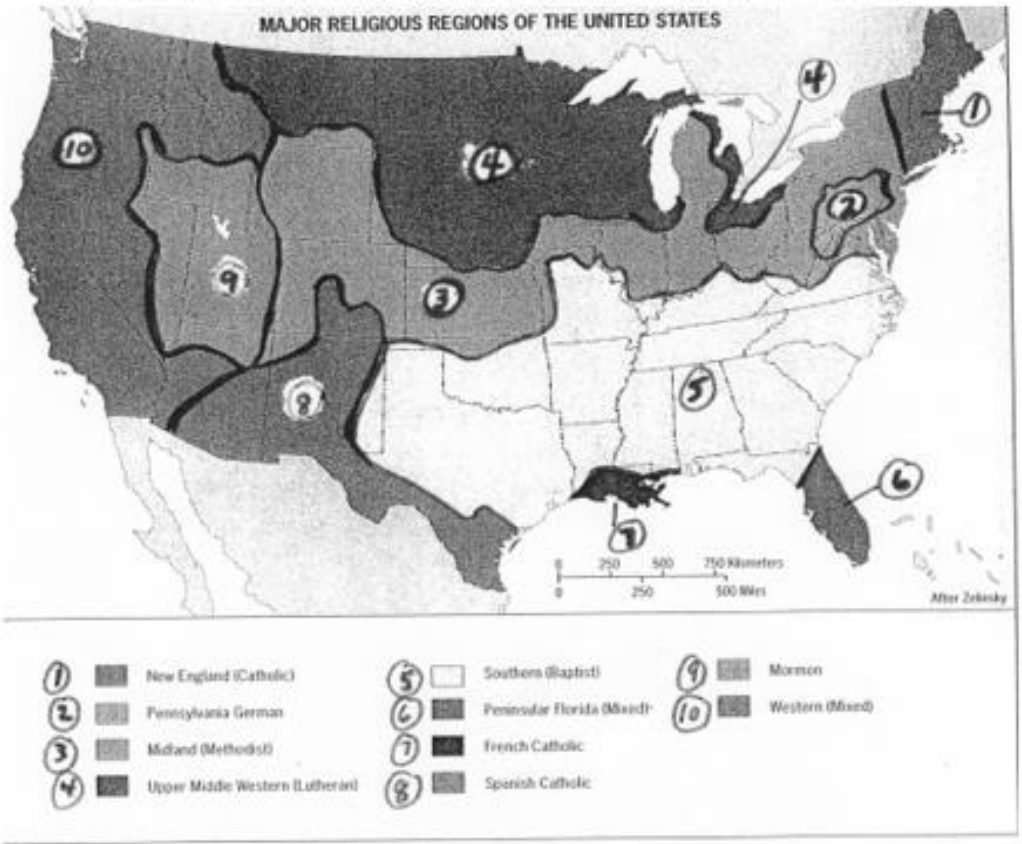


Figure 12-2 Major Religious Regions of the United States. A generalized map of religious regions in the United States shows concentrations of the major religions. *Source: Modified from W. Zelinksy, "An Approach to the Religious Geography of the United States,"* Annals of the AAG *51, 1961, p. 139.*

7. **Islam**

a. Origin

1) _____

2) _____--holy city, _____ --Arab Empire capital.
3) Importance of Jerusalem?
4) _____ major religion.
5) Over a billion adherents but over half our outside what is consider the "Islamic World"—_____has more Muslims than any other country (not percentage).

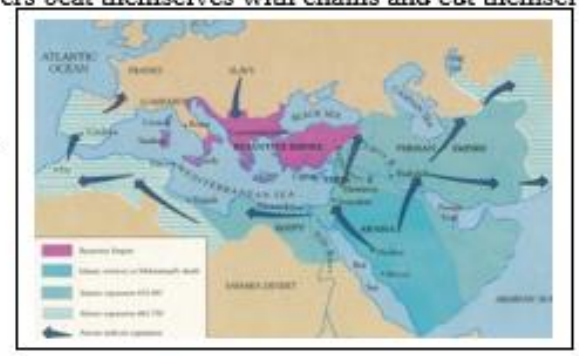
b. Major Beliefs

1) believe in --"Allah"
2) follow the teachings of the prophet--Mohammed (from Mecca)
3) _____—Muslims
4) _____ rules every part of life--laws from Allah as set out by Mohammed.
5) follow the 5 pillars of faith in the Koran.
   a) _____
   b) _____ (must face Mecca)
   c) _____—Ramadan
   d) almsgiving _____
   e) _____to Mecca

6) Alcohol, smoking, and gambling is _____
7) Polygamy is tolerated but monogamy is preferred
8) _____ were built for the Friday prayer and a social gathering place
9) Original capital—Medina but moved to Damascus and then to Baghdad
10) Excelled in mathematics, architecture and science and established institutes of higher learning in many cities
11) 2 branches--
   a) Sunni (87% of all Muslims)
      11) believe in the effectiveness of family and community in solving life's problems.
      22) Have adopted some fundamentalist movement's causes.

b) Shiite or Shiah—mainly in Iran (13% or all Muslims)
   11) Believe the *imam* is the sole source of true knowledge (*Imams* are Shiite Muslim leaders whose appointments are regarded as sanctioned by Allah—thought to be without sin and infallible and are therefore strong social and political forces.)
   22) Ceremonies are passionate and emotional
   33) Religious anniversaries are observed with intense processions during which members beat themselves with chains and cut themselves.

c. Diffusion
   1) expansion diffusion
   2) see maps



e. Cultural Landscape
   1) Mosques
   2) Architecture Styles (domes, tiles, minarets, balconies, etc.)

Key Concepts To Remember About Religion and Geography…

1. Religion has an influence on the cultural mosaic.
2. Religions affects food preferences, e.g., world distribution of cows, pigs
3. Religion affects peoples' world view (mentifacts).
4. Religion affects peoples' attitudes toward work and economic practices.
5. Religion is a strong force for cultural stability because it emphasizes continuity, tradition, and strict adherence. On the other hand, it can be a drag on needed change.
6. It plays a role in politics and government.
7. Some countries have official state religions, e.g., United Kingdom and the Church of England, Thailand and Buddhism, Italy and Roman Catholicism, Israel and Judaism, Iran and Islam.

8. Some countries officially separate church and state, e.g., the United States.
9. There are a number of places in the world where political conflicts have roots in religion.
    a. Northern Ireland (Protestants versus Roman Catholics),
    b. Sri Lanka (Buddhists versus Tamil Hindus),
    c. Middle East (Jews versus Moslems; Sunni Moslems and Shi'ite Moslems),
    d. India (1946: Moslems versus Hindus, Sikh assassination of Prime Minister Gandhi, Hindu fundamentalists assassination of Rajiv Gandhi).
10. Fundamentalism and extremism is becoming more common in the world today.
    a. Caused by reactions to cultural convergence and threats to cultural security from "modernization."
11. Religions affect how people organize and perceive space.
12. Religions are influenced by events and features in the physical environment.
    a. Natural events are incorporated into the structure of religions. Cosmogony is the relationship between human beings and nature.
13. The yearly calendar of some religions reflects the annual cycle of seasonal/climatic variation
    a. Judaism where an ancient Mediterranean agricultural calendar coincides with religious calendar. Passover = celebration of first spring harvest; Rosh Sha Shanah (New Year) coincides with time of grain planting.
    b. Judaism and Islam follow a lunar calendar (new moon = new month and a holiday).
    c. Winter solstice coincides with Christmas, a holdover from pagan and Roman celebrations of the rebirth of the sun.
    d. HOWEVER, Buddhism and Christianity's calendars are mostly set by celebrations of events in their founder's lives.
14. Features of the landscape are designated as holy.
15. There is sacred space and secular space. Two kinds of places may be endowed with holiness:
    a. distinctive physical environments, e.g. sacred mountains (Mt Fuji in Japan), sacred rivers (Ganges River), sacred rocks (Ka'ba in Mecca, holy city of Islam).
    b. objects on the landscape associated with religious origins or diffusion, e.g., shrines, places of miracles.
16. Trips to holy places are called pilgrimages, e.g., Canterbury Tales, "haj" to Mecca, visits to the Holy Land, trip to Ganges River to bathe in the holy waters.
17. Religions affect the landscape in different ways.
    a. Christian landscape: dominated by high density of churches in prominent places. Different styles vary by denomination, e.g., elaborate urban European Catholic cathedrals versus simple, plain, Protestant chapels in rural South.
    b. Mosques are space for community assembly. Organized around a central courtyard with the pulpit facing Mecca.
    c. Most Asian religions view temples as shrines, not places of worship.
18. Burial Practices vary because of environmental characteristics and religious beliefs. Climate and topography influence the choice of burial but always within the context of religious doctrine.
    a. Christians and Moslems: burial in cemeteries and other designated sites. Cemeteries usually in sandy soil; used as parks in places where open land is scarce.
    b. Hinduism and Buddhism: Cremation

ETHNCITY NOTES ***Read Chapter 7***

Unit IV. Political Organization of Space

In this unit we will study the evolution of the modern state. We will define and identify the concepts of nation vs. state vs. nation state. Both centripetal and centrifugal forces in modern nations will be discussed: the rise of nationalism vs. regionalism. Political systems at a variety of scales (local to global), the characteristics of states (shape, size, location of capital, core vs. periphery), and the types of boundaries and boundary disputes (analysis of current world crises using above concepts) will also be studied.

> *Students learn about the nature and significance of the political organization of territory at different scales. Political patterns reflect ideas of territoriality—how Earth's surface should be organized—which in turn affect a wide range of exercises of power over space and boundaries. Two major themes are the politicalgeography of the modern state and relationships between countries. Students are introduced to the different forces that shaped the evolution of the contemporary world map. These forces include the rise of nation-states, especially in Europe; the influence of colonialism and imperialism; the rise of supranational organizations; and the devolution of states.*
>
> *Students learn about the basic structure of the political map, including the inconsistencies between maps of political boundaries and maps of ethnic, cultural, economic, and environmental patterns. Additionally, students analyze forces that are changing the roles of individual countries in the modern world, such as ethnic separatism, terrorism, economic globalization, and social and environmental problems that cross international boundaries (e.g., climate change and acid rain). This part of the course also focuses on subnational and supranational political units. For example, at the scale above the state level, attention is directed to regional alliances, such as the North Atlantic Treaty Organization (NATO), the European Union, the Association of Southeast Asian Nations (ASEAN), and the North American Free Trade Agreement (NAFTA). At the scale below the state level, students learn about the ways in which electoral districts, municipalities, indigenous areas, provinces, and autonomous lands affect political, social, and economic processes.*
>
> [Course Description: Human Geography, 2015,
> The College Board Advanced Placement Program.]

ENDURING UNDERSTANDING

A. The contemporary political map has been shaped by events of the past.

B. Spatial political patterns reflect ideas of territoriality and power at a variety of scales.

C. The forces of globalization challenge contemporary political–territorial arrangements.

LEARNING OBJECTIVES

- Explain the structure of the contemporary political map.
- Explain the evolution of the contemporary political map.
- Evaluate the geopolitical forces that influence the contemporary political map.
- Explain the concepts of political power and territoriality.
- Evaluate the nature and function of international and internal boundaries.
- Analyze the spatial relationships between political systems and patterns of culture and economy.

- Compare and contrast forms of governance
- Describe patterns of local and metropolitan governance.
- Explain how political, economic, cultural, & techn elements of globalization challenge state sovereignty.
- Apply the concepts of centrifugal and centripetal forces at the national scale.

ESSENTIAL KNOWLEDGE

- Independent states are the primary building blocks of the world political map.
- Types of political entities include nations, states, nation-states, stateless nations, multinational states, multistate nations, and autonomous regions.
- The concept of the modern nation-state began in Europe.
- Colonialism and imperialism led to the spread of nationalism and influenced contemporary political boundaries.
- Independence movements and democratization have shaped the political map since the end of World War II.
- The fall of Communism ended the Cold War, led to the creation of newly independent states, and changed the world balance of power.
- Political power is expressed geographically as control over people, land, and resources (e.g., heartland, rimland, and organic theories).
- Territoriality is the connection of people, their culture, and their economic systems to the land.
- Boundaries are defined, delimited, demarcated, and administered.
- International boundaries establish the limits of sovereignty and can be the source of disputes.
- Boundaries can influence identity and promote or prevent international or internal interactions and exchanges.
- The Law of the Sea has enabled states to extend their boundaries offshore, which sometimes results in conflicts.
- Voting districts, redistricting, and gerrymandering influence the results of elections at various scales.
- Political boundaries do not always coincide with patterns of language, religion, ethnicity, nationality, and economy.
- Forms of governance include unitary states (centralized government) and federal states.
- Powers of the subdivisions of states vary according to the form of governance (e.g., the United States and Switzerland as federal states, France as a unitary state).

- State morphology (e.g., compact, elongated, perforated, fragmented, prorupted states) has economic, political, and social implications.
- Local and metropolitan forms of governance (e.g., municipalities, school districts, regional planning commissions) are subnational political units that have varying degrees of local control.
- Some forces that may lead to supranationalism include economies of scale, trade agreements, military alliances, and transnational environmental challenges.
- Supranationalism is expressed in the creation of multinational organizations (e.g., UN, NATO, EU, ASEAN, NAFTA).
- Some forces that may lead to devolution of states include physical geography, ethnic separatism, terrorism, economic and social problems, and irredentism.
- Devolution is expressed in the fragmentation of states into autonomous regions (e.g., Nunavut, Native American reservations), subnational political–territorial units (e.g., Spain, Belgium, Canada), or Balkanization (e.g., former Yugoslavia, the Caucasus).
- Advances in communication technology have facilitated devolution, supranationalism, and democratization.
- Centrifugal forces can originate in political dimensions (e.g., majority/ minority relationships, armed conflicts), economic dimensions (e.g., uneven development), or cultural dimensions (e.g., stateless nations, ethnic movements).
- Centripetal forces can originate in political dimensions (e.g., national identity), economic dimensions (e.g., equitable infrastructure development), or cultural dimensions (e.g., linguistic, religious, and ethnic similarities)

BASIC VOCABULARY AND CONCEPTS

Annexation
Antarctica
Apartheid
Balkanization
Border landscape
Boundary, disputes (definitional; functional/operational; allocational/resource; positional/locational)
Boundary, origin (antecedent; subsequent; superimposed; relic)
Boundary, process (definition; delimitation; demarcation)
Boundary, type [natural/physical; ethnographic/cultural (linguistic, religious, etc); geometric]
Buffer state
Capital
Centrifugal
Centripetal
Iron Curtain
Irredentism
Israel/Palestine
Landlocked
Law of the Sea
Lebanon
Mackinder, Halford J.
Manifest destiny
Median-line principle
Microstate
Ministate
Nation
National iconography
Nation-state
Nunavut
Raison d'être
Reapportionment
Regionalism
Religious conflict
Reunification

City-state
Colonialism
Confederation
Conference of Berlin (1884)
Core/periphery
Decolonization
Devolution
Domino theory
Economic Enterprise Zones (EEZ)
Electoral regions
Enclave/exclave
Ethnic conflict
European Union
Federal
Forward capital
Frontier
Geopolitics
Gerrymander
Global commons
Heartland (MacKinder)/Rimland Theory
Immigrant states
Imperialism
International organization
Satellite state
Self-determination
Shatter belt
Sovereignty
State
Stateless ethnic groups
Stateless nation
Suffrage
Supranationalism
Territory
Territorial disputes
Territorial morphology (compact; fragmented; elongated; prorupt; perforated)
Territoriality
Theocracy
Treaty ports
UNCLOS
Unitary
USSR collapse
Women's enfranchisement
Impact of globalization on state sovereignty

STUDY QUESTIONS

1. What is political geography?
2. Define sovereignty. How is it manifest among the member of the family of nations?
3. A. Explain territorial morphology--the difference between compact, fragmented, elongated, proptruded and perforated states.
   B. Also explain exclaves and enclaves.
4. Answer the following questions as they are used in political geography.
   A) What are the five basic shapes of states?
   B) For each basic shape, give one example.
   C) For each basic shape, give two advantages and disadvantages.
   D) Give two specific examples since World War II where the shape of a state has been a contributing factor for either internal or external conflict.
5. How does a nation's shape affect both issues of governance and the development of its foreign policy?
6. A. What is a state? A nation? A nation-state? A unitary state? A federal state? A theocracy?
   B. Give modern day examples of each type of political division.
7. Why is the traditional notion of the nation-state concept presently in transition?
8. What impact did the various Law of the Sea conferences have on territorial waters and maritime claims?
9. In what sense are boundaries at the core of the inquires conducted by political geographers? Identify types of boundaries and their function.
10. A. How may boundaries be classified?
    B. How do they create opportunities for conflict?
    C. Describe and give examples of three types of border disputes.

11. Boundary disputes
    A) Using specific examples since World War II, describe the origin, evolution, conflict, and resolution for three of the following types of border disputes:
        i. positional/locational disputes.
        ii. territorial disputes/irredentism.
        iii. resource/allocational disputes.
        iv. definitional dispute.
        v. operational disputes.
12. Boundaries have evolved over time in numerous ways.
    A) Define and give an example for the following types of boundaries:
        i. subsequent.
        ii. antecedent.
        iii. superimposed.
        iv. relict.
    B) Describe in detail how superimposed boundaries have contributed to political unrest in both Africa and Southwest Asia.
13. How are cooperation and conflict involved in influencing the distribution of social, political, and economic spaces on Earth at different scales?
14. Boundaries fall into two basic categories – geometric/cultural and physical.
    A) Define and describe three different geometric/cultural and physical boundaries.
    B) What is one advantage and disadvantage to each type of geometric/cultural boundary.
    C) Define and describe three different types of physical boundaries.
    D) What is one advantage and disadvantage for each type of physical boundary.
15. A. Explain Halford Mackinder's Heartland Theory.
    B. Explain Nicholas Spykman's Rimland Theory.
    C. Explain the Domino Theory.
16. What is the impact of multiple spatial divisions of peoples lives (school districts, congressional districts, boundaries, etc.)
17. How can developments such as new technologies and new markets act as change agents in a region?
    A. How does the *United Nations Convention on the Law of the Sea* define zones of diminishing national control?
    B. What are the consequences of the 200 nautical mile exclusive economic zone?
18. A. Distinguish between centripetal and centrifugal political forces.
    B. What are some ways national cohesion and identity are achieved?
19. How have colonialism and imperialism been both constructive and disruptive forces in the era since the Age of European Exploration in the sixteenth and seventeenth centuries?
20. How can efforts at religious conversion through missionary activities cause political and cultural conflict in an area? How does it relate to the changing nature of sovereignty?
21. What are some of the forms that supranationalism takes in the contemporary world?
22. Explain what the concept of gerrymandering. Why does it matter how boundaries are drawn around electoral districts? Theoretically is it always possible to delimit boundaries "fairly"? Support your answer.
23. Globalization continues to impact the viability of the state.
    A) What four aspects make up a state?
    B) Describe three ways globalization impacts the authority of a state. Give specific examples.
    C) Discuss two ways that states have given more sovereignty to multi-state organizations, and two ways that states have tried to curb the influence of globalization.

24.

A. Define the following concepts as they are used in political geography.
   1. Nation
   2. State
   3. Nation-State

B. For each of these concepts, name a specific late-twentieth-century example from Region A and a specific late-twentieth century example from Region B on the map above.

C. Explain how the pursuit of the nation-state ideal during recent decades has led to conflict in each of the two Regions A and B on the map above.

25. Distribution of states vs. ethnicities
Using examples after World War II, answer the following questions regarding two of the areas listed below.

Sub-Saharan Africa Southwest Asia South Asia.

A) Explain how an ethnicity evolved into a nationality.
B) Describe in detail how this evolution contributed to conflict?
C) Describe in detail the geographic components to the conflict?

26. Nations and ethnicity
Define and give an example for the following terms:
   i. ethnicity
   ii. nation
   iii. state
   iv. multi-ethnic state
   v. multi-national state
   vi. stateless nation
   vii. nation-state

27. A) How does an ethnicity evolve into nationality? Give two examples.
B) How does a nation evolve into a state? Give two examples.
C) From a geographic perspective, give at least two reasons why the Nation-State ideal not realistic today?
D) How are governments today attempting to address the multi-ethnic and/or multi-national makeup of their territories. Give two examples.

28. Discuss in detail how the revival of religious fundamentalism and/or ethnic identity has threatened the existing geographical arrangement of states for three of the following regions.

A) South Asia. D) Southwest Asia. G) Eastern Europe.
B) Southeast Asia. E) North Africa.
C) Sub-Saharan Africa. F) Southern Mexico.

Read Chapter 8

Notes

I. Definitions

A. State -- A state is _____
(The term "country" is a synonym for "state.")

A state must have the following:

- An _____
- A _____ on the Earth's surface
- A permanent _____ and
- _____ (which means independence from control of its internal affairs by other states)
- _____by the _____

B. Nation-- _____

_____

a state can have more than one nation, e.g., Canada

a single nation can be divided among two or more states, e.g. Kurds

C. Nation-State-- _____
Rare, e.g. Japan, Ireland, Denmark and Poland closest examples

D. Binational or multinational state—_____

_____

E. Stateless nation—_____
—Kurds, Basque, Macedonians, Palestinians

F. Colony—_____

G. Imperialism—_____

_____

[Colonialism is control of previously uninhabited or sparsely populated land.]

II. Study of the spatial organization and distribution of political units

A. National Political Systems

1. Earth's surface now completely divided into political units. This is a relatively recent occurrence.
   a. When the US formed in 1776 there were only some _____ empires, kingdoms, and countries in the entire world.
   b. By the beginning of WWII in 1939 there were only_____.
2. Today, there are _____ countries recognized

B. Development of the State Concept
   1. Ancient and Medieval States
      a. Civilizations developed and evolved in Mesopotamia and the Nile River Valley
      b. Various empires formed
      c. After the collapse of the Roman Empire the land was divided by estates owed by competing kings, dukes, barons and other nobles and landowners.
   2. Colonies
      a. Between 1400's and 1800's Europe colonized all over the world.
         1) _____
         2) _____
         3) _____
         God—Gold—Glory
      b. _____ had the largest colonial system
      c. _____ was second
   3. Modern State
      a. First major step was the _____ in the emergence of the European state (signed at the end of the Thirty Years' of War (1648))
         1) _____
         2) _____ and
         3) _____

      b. Today, two classifications of government evolved

         1). Democratic/Constitutional Governments

            a) Democracy—_____
            b) Democratic Republic—_____

c) Socialist Republic—_____

_____

2) Authoritarian Government

a) _____

b) _____

c) _____

d) _____

4. Antarctica is the only landmass on Earth that is not a part of a state. Even though several countries claim territory there. An agreement was made in 1959 and renewed in 1991 that gives states permission to establish research stations on Antarctica for scientific investigations, but no military activities are permitted. Antarctica not only lacks an established government but a permanent population, also. Its official population is 0.

III. Geographic Characteristics of States

A. size

1. advantages _____

2. disadvantages _____

B. shape

1. **compact** state—_____

_____ (Poland, Uruguay, etc.)

2. **prorupt** state or **protruded** state—_____

_____

(Thailand, Namibia, etc.)

3. **elongated** state—_____ (Vietnam, Norway, etc.)

4. **fragmented** state—_____

a. _____ (Indonesia, Japan, etc.)

b. _____

(Italy, Denmark, Malaysia, etc.)

c. _____ (US, Pakistan before 1971, etc.)

d. **exclaves**—_____
(India in Bangladesh, Armenia and Azerbaijan, etc.)

5. **perforated** state—_____

(South Africa surrounds Lesotho)—surrounded territory is called an _____

(opposite of an exclave) –it may be independent or a part of another country (San Marino and Vatican City in Italy.

C. Location

1. absolute—"where" _____

_____

(Canada's absolute location in the upper latitudes limits their agricultural potential.)

2. relative—

_____, etc.

3. capital location

_____

D. Boundaries

1. Mark the limits of a state's jurisdiction
2. Two types:

a. _____

b. _____

3. Can be classified according to when they were laid out

a. antecedent –_____

_____

(49th parallel boundary between the US and Canada)

b. subsequent—_____

_____

c. relict—_____

_____

(North and South Vietnam)

d. superimposed—_____

such as the border that now divides North and South Korea.

4. Boundary Disputes

   a. positional or definitional dispute—_____

      _____

      _(Argentina and Chile—water divide and highest peak not always the same) (US and Mexico—Rio Grande changes its course)

   b. territorial or locational disputes—_____.

      Often occurs, though not always, _____

      _____. If one group wants to annex another state's territory whose population is ethnically related to that state the expansionism is called _____.

   c. resources (or allocation) boundary disputes—_____

      _____ (valuable mineral resources, fertile farmland, rich fishing grounds, etc.) Iraq Vs Kuwait.

   d. functional or operational disputes—_____

      _____(immigration, movement of traditionally nomadic groups, customs regulations, land use, etc.)

IV. Projection of Power

   A. Colonialism _____

   B. Imperialism

      _____and

   C. Decolonization _____

   D. Theories of Geopolitical Power

      1. Ratzel's Organic theory. _____

         _____

         _____

         _____

         _____

         _____

         _____

2. Halford Mackinder's Heartland theory. The greatest land power would be sited in _____" _____" containing the world's largest landmass in both _____and_____. Its_____ would provide a base for world conquest, and _____was the core of that heartland. Mackinder warned "Who rules_____ commands the Heartland, who rules the Heartland commands the_____ _____, who rules the World-Island commands the_____."

3. Nicholas Spykman's Rimland theory. Agreed that _____ was the likely base for potential world domination, but argued that the _____ of the landmass, not the hearthland, were the key. The continental margins contained dense _____, abundant _____, and had _____ both to the seas and to the continental interior. "Who controls the _____ rules Eurasia, who rules Eurasia controls the destinies of the world." By the end of WWII the Heartland was equated with the _____. To prevent Soviet domination of the World-Island, US foreign policy was based on the notion of containment of the USSR within its borders by means of a string of regional alliances in the Rimland. (NATO, CENTO in West Asia and SEATO in Southeast Asia).

4. What was the domino theory? Adjacent countries are lined up like dominoes; _____. In the 1960's we used this theory to explain and justify US intervention in _____ _____, in the 1980's in _____, and in the 1990's in _____, etc.

V. Changing Nature of Sovereignty

A. State Cohesiveness

Centripetal Forces (forces that promote unity and stability)	Centrifugal Forces (forces that disrupt, destabilize, and wea
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

1. Nationalism and Regionalism
   a. **Nationalism** is a term that refers to a doctrine or political movement that holds a nation together—usually defined in terms of _____ or _____ —has the right to constitute an independent or autonomous political community based on a shared history and common destiny.
   b. **Regionalism** is a political ideology that focuses on the interests of a particular region or group of regions. Regionalism centers on increasing the region's _____, either through movements for limited form of autonomy (devolution, states' rights, decentralization) or through stronger measures for a greater degree of autonomy (sovereignty, separatism, independence). Regionalists often favor loose federations or confederations over a unitary state with a strong central government.
2. Location, shatter belts, irrendentism, etc.
   a. Location is an important geographic factor when looking at whether a state stays strong or is pulled apart.
   b. **Shatter belts** occur in regions that are located _____. Places the smaller, weaker states are under stress and they often fragment or due to their aggressive neighbors.
   c. **Irrendentism** occurs when one group wants to annex another state's territory because the population is ethnically related to that state.
3. **Supranationalism** refers to associations created by three or more states for their _____.
   (States may lose their individual identity.)

4. Devolution and separatism
    a. **Devolution** is the process where a region _____ a region demands and gets political strength and growing autonomy at the expense of the central government.

        Three forces

        1) _____ forces—Ethnonationalism—strong ethnic groups within a state wants their independence.

            i.e. French Quebec in Canada; native Inuit in Canada (resulted in the formation the territory of Nunavut); Basque in Spain; Kurds in Turkey, Iraq, Syria or Iran; Scotland in the UK; Irish Catholics in Northern Ireland in the UK; Muslims in India resulting in the formation of Pakistan and Bangladesh; former Yugoslavian state was broken up into 5 different states in the 1990's [see **Balkanization** below]
        2) _____ forces—inequalities in various regions within a state often lead to movements to divide a state.

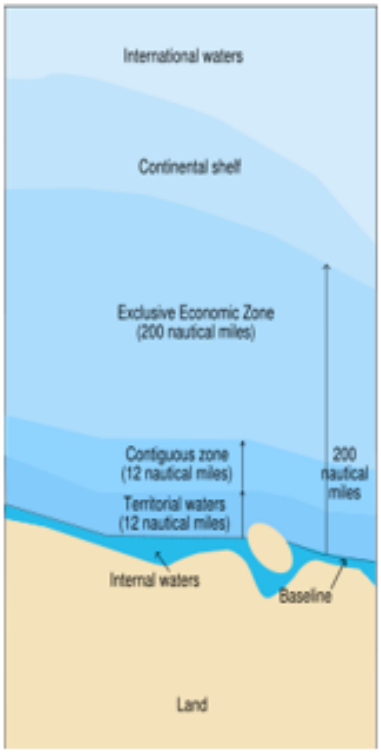
            i.e. North and South Italy; North and South Korea; Catalonia in Spain.
        3) _____—distance, remoteness, separation, and peripheral location promotes devolution.

            i.e. Tibet in China (P.R. of); two Pakistans; etc.

    b. **Balkanization** is a geopolitical term originally used to describe the process of fragmentation or division of a region or state into smaller regions or states that are often hostile or non-cooperative with each other. The term has arisen from the conflicts in the 20th century Balkans. The first balkanization was embodied in the Balkan Wars, and the term was reaffirmed in the Yugoslav wars.

B. Supranationalism—International Political Systems
    1. **United Nations** is an international organization whose stated aims are to facilitate cooperation in international law, international security, economic development, social progress and human rights issues. The United Nations was founded in 1945 to replace the League of Nations, in the hope that it would intervene in conflicts between states and thereby avoid war. There are now 193 United Nations member states. [Antarctica has no government, political control of Western Sahara is in dispute, and Taiwan is no longer considered an independent member nation. Vatican City (the Holy See is a UN observer), the Palestinian territories (Palestine, represented by the Palestine Liberation Organization, is a UN observer)

2. **Law of the Sea**—The United Nations Convention on Law of the Sea (UNCLOS) is the international agreement that defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources. The United States has signed the treaty, but the Senate has not ratified it.
(This replaces the older -- and weaker -- 'freedom of the seas' concept, dating from the 17th century: national rights were limited to a specified belt of water extending from a nation's coastlines, usually three nautical miles, according to the 'cannon shot' rule developed by the Dutch. All waters beyond national boundaries were considered international waters - free to all nations, but belonging to none of them.)
   a. _____ **waters**: Covers all water and waterways on the landward side of the baseline. The coastal state is free to set laws, regulate use, and use any resource. Foreign vessels have no right of passage within internal waters.
   b. _____ **waters**: Out to 12 nautical miles from the baseline, the coastal state is free to set laws, regulate use, and use any resource. Fishing, polluting, weapons practice, and spying are not allowed.
   c. **Contiguous zone**: Beyond the 12 nautical mile limit there was a further 12 nautical miles or 24 nautical miles from the territorial sea baselines limit, the contiguous zone, in which a state could continue to enforce laws regarding activities such as smuggling or illegal immigration.
   d. _____ **_(EEZ's)**: Extend 200 nautical miles from the baseline. Within this area, the coastal nation has sole exploitation rights over all natural resources. The EEZs were introduced to halt the increasingly heated clashes over fishing rights, although oil was also becoming important.
   e. _____: Continental shelf is defined as natural prolongation of the land territory to the continental margin's outer edge, or 200 nautical miles from the coastal state's baseline, whichever is greater. State's continental shelf may exceed 200 nautical miles until the natural prolongation ends, but it may never exceed 350 nautical miles. States have the right to harvest mineral and non-living material in the subsoil of its continental shelf, to the exclusion of others.



   f. _____ are given a right of access to and from the sea, without taxation of traffic through transit states.

An International Seabed Authority (ISA) was established to authorize seabed exploration and mining and collect and distribute the seabed mining royalty outside any state's territorial waters or EEZ.

What Are International Organizations?

A Study of Cooperation

International organizations are organizations that have developed to encourage cooperation between countries and people from around the world.

Why do these organizations exist?

Countries cooperate for many different reasons. The four main reasons are 1) for trade, 2) to exchange ideas and information, 3) for protection, and 4) to help improve the conditions of human life.

Just as many conflicts are a result of economic reasons, many countries cooperate in order to encourage trade between the member countries. By having trade agreements, they can avoid tariff wars and competition between member countries. Outcomes of trade agreements could include more open trade among members, stimulation of growth, creation of jobs and a raise in the standard of living of the people.

A second reason countries cooperate is to encourage the exchange of ideas and information. Information may include scientific and technological information, which will help improve people's lives, or it could include an exchange of cultural information such as art, music, fashion, etc.

A third reason countries cooperate is for the mutual protection of cooperating countries. Alliances often form to help make the individual countries stronger and less of a target to their enemies. If an enemy knows that there is a possibility of several countries becoming involved in the defense of a targeted country, then they are less likely to attack. Therefore many alliances are a result of mutual protection.

A final reason for cooperation is to improve the conditions of human life. International health organizations would be an example of this type of cooperation. Member countries work together to prevent world hunger, help people around the world in times of disaster, or to help people to survive the destruction of war.

Many countries have formed alliances. Those alliances may be for one or more reasons. In this unit on Cooperation we will be discussing many different international organizations which have formed.

Who are the members of international organizations?

Obviously one of the things that we are very interested in World Geography is which countries are members of the various international organizations. We are interested in studying who are allies and who are in conflict and how this influences our lives in the United States. We also want to know who our allies are. Who do we cooperate with and Where are the international organizations located? Why? Therefore we are going to study various international organizations in this unit.

International organizations

United Nations (UN)

NATO (North Atlantic Treaty Organization)

Warsaw Pact (no longer active but important to history)

League of Arab States (The Arab League)

ASEAN (Association of SE Asian Nations)

OAU (Organization of African Unity)

The Commonwealth (originally called the British Commonwealth of Nations)

(Continued on next page.)

EU (European Union, European Communities, the Common Market)
Benelux (Belgium, Netherlands and Luxembourg)
EFTA (European Free Trade Association)
OECD (Org. for Economic Cooperation & Development)
OPEC (Org. of Petroleum Exporting Countries)
Interpol (International Criminal Police Org.)
OAS (Organization of American States)
CARICOM (Caribbean Community & Common Market)
CIS (Commonwealth of Independent States)
G-7 (Group of 7)/**G-8**
NAFTA (North Atlantic Free Trade Association)
APEC (Asian Pacific Economic Cooperation)
Amnesty International
Peace Corps
French Foreign Legion
Green Peace
Medicins Sans Frontieres (Doctors without Borders)

World Organizations that work with the United Nations:
FAO (Food and Agriculture Organization)
IBRD (International Bank for Reconstruction & Development (World Bank)
ICAO (International Civil Aviation Organization)
IFAD(International Foundation for Agricultural Development)
IMF (International Monetary Fund)
ITU (International Telecommunication Union)
UNICEF (United Nations Children's Fund)
UNESCO (UN Educational, Scientific & Cultural Org.)
UPU (Universal Postal Union)
WHO (World Health Organization)
WIPO (World Intellectual Property Organization)
WTO (World Trade Organization)

Questions

Q1: When was the organization established?

Q2: What is/was its primary purpose (goals)?

Q3: What countries belong to the organization?

D. Competition and Conflict

1. Reasons

a. _____—

examples: two Chinas, ISIS, etc.

b. _____—

examples: Spratly Islands; oil in the Middle East; fishing rights, etc.

c. _____—

1) Land

2) Boundaries

3) National homelands

4) Strategic locations

examples: Palestine and Israel; Falkland Islands—British and Argentina; Kashmir—India vs. Pakistan; Suez Canal—Israel and Egypt; etc.

d. _____—

1) Ethnic

2) Beliefs

3) Race

examples: Muslims vs. Hindus in India; Gang wars in the U.S.; Jews vs. Muslims in the Middle East; Hutus vs. Tutsis in Rwanda; Fundamentalists movements; Kurds in Turkey, Syria, Iraq, and Iran etc.

ii. **Terrorism**—systematic use of violence by a group in order to intimidate a population or coerce a government into meeting their demands

a. Organized acts that spread fear

1) _____

2) _____

3) _____

4) _____

5) _____

They consider all citizens responsible for their situations so they target all people. Non-military and non- political targets are usually hit since they want to bring fear to the people.

e. Bring publicity to their goals an grievances

f. Believe in their cause –willing to die for that cause
[Terrorism has been used for a long time and is not just connected to the Middle East.]

VI. Local and Regional Political Organization, e.g., districting, fragmentation of political power

A. Land Survey Systems

1. Metes and Bounds _____

_____

_____

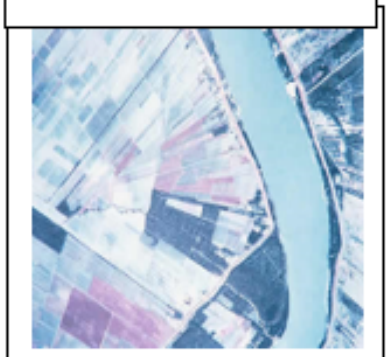
_____

2. Townships and Range _____

_____

_____

_____



3. French Long Lot _____

_____

_____

_____

B. Zoning _____

_____

C. Annexation _____

_____

D. Redistricting or reapportionment as populations shift— _____

_____

1. Tied to _____ of Topeka, Kansas—"_____" in school systems was unconstitutional so had to redraw school lines.

2. And tied to _____—"_____" ended overrepresentation of sparsely populated districts (now each district has to have about the same number of people). Think west Texas vs. east Texas

3. As people move—redistricting occurs based on census information

4. Each election district should contain

   a. _____

   b. _____

E. **gerrymandering—**

_____

_____

_____

North Carolina—Predominately African American and liberal

Texas—Produced a District for Tom DeLay

Illinois—puts two Hispanic neighborhoods together.

1. stacked—_____

2. excess vote—concentrate the votes _____ —_____

3. wasted vote—_____

X	X	X	X
O	O	X	X
O	O	O	O

X	X	X	X
O	O	X	X
O	O	O	O

X	X	X	X
O	O	X	X
O	O	O	O

X	X	X	X
O	O	X	X
O	O	O	O

X's and O's may represent

Republicans and Democrats, Liberals and Conservatives, urban and rural voters, blacks and whites, or any other distinctive groups.

UNIT V. AGRICULTURE, FOOD PRODUCTION, AND RURAL LAND USE

Students examine geographic hearths where domestication of plants and animals first occurred and study the processes by which domesticated crops and animals spread. This diffusion process helps explain why distinct regional patterns emerge in terms of diet, energy use, and the adaptation of biotechnology.

This part of the course also examines the major agricultural production regions of the world, which are categorized as commercial or subsistence operations and are characterized as extensive (e.g., shifting cultivation) or intensive (e.g., mixed crop/ livestock). Agricultural production regions are examined, as are settlement patterns and landscapes typical of each major agriculture type. Students learn about land survey systems, environmental conditions, sustainability, global food supply issues, and the cultural values that shape agricultural patterns. In addition, this unit addresses the roles of women in agriculture production, particularly in subsistence farming and market economies in the developing world.

Students learn theories and models about patterns of rural land use and associated settlements (e.g., von Thunen's land use model). They also study the impacts of large-scale agribusiness on food production and consumption. The effects of economic and cultural globalization on agriculture and the need to increase food supplies and production capacity are also addressed.

[Course Description: Human Geography, 2015,
The College Board Advanced Placement Program.]

ENDURING UNDERSTANDING

A. The development of agriculture led to widespread alteration of the natural environment.

B. Major agricultural regions reflect physical geography and economic forces.

C. Settlement patterns and rural land use are reflected in the cultural landscape.

D. Changes in food production and consumption present challenges and opportunities.

LEARNING OBJECTIVES

- Identify major centers of domestication of plants and animals and patterns of diffusion in the first (Neolithic) agricultural revolution.
- Explain the connection between physical geography and agricultural practices.
- Explain the advances and impacts of the second agricultural revolution
- Analyze the consequences of the Green Revolution on food supply and the environment.
- Identify agricultural production regions associated with major bioclimatic zones.
- Analyze the economic forces that influence agricultural practices.
- Explain the spatial organization of large- scale commercial agriculture and agribusiness.
- Explain the interdependence among regions of food production and consumption.
- Identify rural settlement patterns.
- Compare and contrast the land use zones of von Thünen's model.

- Analyze the application of von Thünen's land use model to agricultural production in the real world.
- Evaluate the environmental consequences of agricultural practices.
- Explain issues related to the changing nature of contemporary agriculture.
- Explain issues related to the location of food- production facilities.
- Explain the changing role of women in food production and consumption.

ESSENTIAL KNOWLEDGE

- Early hearths of domestication of plants and animals include Southwest Asia (e.g., the Fertile Crescent), Southeast Asia, and the Americas.
- Patterns of diffusion (e.g., Columbian Exchange) resulted in globalization of various plants and animals.
- Agricultural regions are influenced by the natural environment (e.g., climate, soils, landforms).
- Populations alter the landscape (e.g., terraces, irrigation, deforestation, draining wetlands) to increase food production.
- New technology and increased food production led to better diet, longer life, and more people available for work in factories.
- The Green Revolution began with the development of high-yield seeds (e.g., rice, wheat, maize), resulting in the increased use of chemical and mechanized farming.
- Positive consequences of the Green Revolution include increased food production and a relative reduction in hunger at the global scale.
- Negative consequences of the Green Revolution include environmental damage resulting from irrigation and chemical use (e.g., pesticides, herbicides, fertilizers) and the cost of technology and seeds.
- Plant and animal production is dependent on climatic conditions, including spatial variations in temperature and rainfall.
- Some agricultural regions are associated with particular bioclimatic zones (e.g., Mediterranean, shifting agriculture, pastoral nomadism).
- Agricultural production regions are defined by the extent to which they reflect subsistence or commercial practices, or intensive or extensive use of land.
- Intensive farming practices including market gardening, plantation agric., mixed crop/livestock systems, etc.
- Extensive farming practices include shifting cultivation, nomadic herding, ranching, etc
- Large-scale commercial agricultural operations are replacing small family farms.
- The transformation of agriculture into large-scale agribusiness has resulted in complex commodity chains linking production and consumption of agricultural products

- Technological improvements have changed the economies of scale in the agricultural sector.
- Food is part of a global supply chain; products from less developed low-latitude regions (e.g., coffee, bananas) are often consumed globally.
- Patterns of global food distrib are affected by political syst., infrastructure, and patterns of world trade.
- Identify rural settlement patterns.
- Rural settlement patterns are classified as clustered, dispersed, or linear
- Von Thünen's model helps to explain rural land use by emphasizing the importance of transportation costs associated with distance from the market.
- Von Thünen's model helps explain contemporary distribution of agric. regions (e.g., dairy, horticulture, wheat).
- Regions of specialty farming (e.g., South Florida, California's Central Valley) do not always conform to von Thünen's concentric rings.
- Environmental systems are affected by land use/land cover change (e.g., irrigation, desertification, deforestation, wetland destruction, conservation efforts).
- Agricultural innovations (e.g., biotechnology, genetically modified organisms, organic farming, aquaculture) have resulted in ongoing debates over environmental, cultural, and health impacts.
- Environmental issues related to agriculture include sustainability, soil degradation, reduction in biodiversity, overgrazing, river and aquifer depletion, animal wastes, and extensive fertilizer and pesticide use.
- Patterns of food production and consumption are influenced by food-choice issues (e.g., organic farming, value-added specialty crops, fair trade, local-food movements).
- Factors affecting the location of food-processing facilities include markets, economies of scale, transportation, government policies, etc.
- The role of women in food production has changed (e.g., food gathering, farming, managing agribusiness).
- The role of women has changed the types of food a family consumes and the way food is prepared.

BASIC VOCABULARY AND CONCEPTS

Adaptive strategies
Agrarian
Agribusiness
Agricultural hearths
Agricultural industrialization
Agricultural landscape
Agricultural location model
Globalized agriculture
Green Revolution
Growing season
Horticulture
Hunting and gathering
Intensive commercial agriculture
Intensive subsistence agriculture

Agricultural origins
Agriculture
Animal domestication
Aquaculture
Biorevolution
Biotechnology
Boserup, Ester
Collective farm
Commercial agriculture [intensive, extensive]
Commodity chains
Core/periphery
Crop rotation
Cultivation regions
Dairying
Debt-for nature swap
Desertification
Deforestation
Diffusion
Double cropping
Economic activity [primary, secondary, tertiary, quaternary, quinary]
Environmental modification [pesticides, soil erosion, desertification]
Extensive commercial agriculture
Extensive subsistence agriculture [shifting cultivation (slash-and-burn, milpa, swidden), nomadic herding/ pastoralism]
Extractive industry
Farm crisis
Farming
Feedlot
First Agricultural Revolution
Fishing
Food chain
Forestry
Genetically Modified Organisms (GMOs)
Intertillage
Livestock ranching
Market gardening
Mediterranean agriculture
Milkshed
Mineral fuels
Mining
Monoculture
Organic agriculture
Pastoral nomadism
Planned economy
Plant domestication
Plantation agriculture
Renewable/nonrenewable
Ridge tillage
Rural settlement [dispersed, nucleated, building material, village form]
Sauer, Carl O.
Second Agricultural Revolution
Seed planting
Specialization
Staple grains
Subsistence agriculture
Suitcase farm
Survey patterns [long lots, metes and bounds, township-and-range]
Sustainable agriculture
Third Agricultural Revolution [mechanization, chemical farming, food manufacturing]
"Tragedy of the commons"
Transhumance
Truck farm
Vegetative planting
Von Thunen, Johann
Impacts of markets on production areas
Role of transportation
Regions of agricultural production

STUDY QUESTIONS

1. Where were various plants and animals domesticated?
2. What role did fire and metallurgy play in hunting and gathering societies and in early agricultural communities?
3. What were the Second Agricultural Revolution, the Industrial Revolution and the Third Agricultural Revolution (Green Revolution)?
4. Choose two of the three agricultural revolutions and describe in detail the following:
   A) Where was the hearth(s) and why?
   B) What type(s) of diffusion spread the practices associated with the agricultural revolutions you chose?
   C) Discuss in detail two benefits and one drawback to the agricultural revolutions you chose.

4. A. What are the world's major agricultural production regions?
   B. Where are extensive activities (fishing, forestry, nomadic herding, ranching, shifting cultivation) and intensive activities (plantation agriculture, mixed crop/livestock systems, market gardening, horticulture, factory farms) found?
   C. How do these activities influence settlement patterns and landscapes?
6. Why are fishing and lumbering included in the study of agricultural geography?
7. Explain the location of the various Mediterranean agricultural systems. What are their main crops? What are the similarities and differences between the various regions?
8. What is subsistence agriculture? In what regions of today's world does it still prevail?
9. How have various environmental issues impacted different regions of the world?

10. Sketch von Thunen's model of agricultural land use around a market city. What assumptions did von Thunen make? What are the main factors that influence where crops (or livestock) are produced as the most cost-effective product for market?
11. The von Thunen model of rural land use is often used to analyze the distribution of different types of agriculture across the landscape.
    A) Describe the basic geographic principles of the model.
    B) How would the categories listed below alter the distribution agricultural practices, according to the von Thunen model.
       i. topographic features
       ii. modern forms of transportation
       iii. climatic and soil variations
    C) Apply von Thunen's model to either the United States or the continent of Europe, and describe in detail where the single market would be located, and the geographic distribution of the five major rings of the model.
12. Explain the impact of physical conditions on the von Thunen model of agriculture—soil quality, climate changes, mountains, rivers, etc.
13. Relate von Thunen's model to the contemporary distribution of agriculture in North America. Use a sketch map to help in your discussion.
14. Distinguish between dispersed and nucleated settlements.
15. Explain how the forms, functions, materials, and spacing of rural dwellings reveal a great deal about a region and its culture.
16. What is commercial agriculture? In what regions of today's world does it prevail?
17. The main division within agriculture exists between subsistence and commercial methods of production.
    A) Define subsistence and commercial agriculture.
    B) Describe the geographic distribution for subsistence and commercial agriculture today.
    C) Discuss in detail the striking differences between subsistence and commercial agriculture for the following categories:
       i. farm size.
       ii. use of machinery.
       iii. purpose of farming.
       iv. percentage of farmers in the labor force.
       v. relationship of farming to other businesses.
18. Assess the impact of changing agricultural practices in North America, Latin America, and Africa.
19. Describe some of the risks implicit in single crop economies.
20. Explain how the global network of farm production is more responsive to the needs of the urbanized societies of the industrialized democracies in the developed world than to more marginal societies in the developing world.

21. How is globalization changing the geography of agricultural production areas? For any four of the categories listed below describe how globalization is altering the geography of production and consumption. Give specific examples for each.
    A) changing geography of production.
    B) improvements in transportation.
    C) impact of trade agreements.
    D) growth of transnational corporations.
    E) production of cash crops.
    F) production of luxury crops.
22. Many developing countries are faced with rapidly expanding populations, which puts a strain on their agricultural production systems. Choose any three strategies listed below and discuss the viability of the method in increasing food for a country's expanding population. Give specific examples from the last twenty years.
    A) increase the amount of land in agricultural production.
    B) increase productivity of the land.
    C) increase new food sources.
    D) increase food imports.
23. Agriculture practices in Less Developed Countries (LDCs) include shifting cultivation, pastoral nomadism, intensive subsistence, and/or plantation agriculture. For each of these agricultural practices answer the questions below.
    A) What is the definition of each agricultural practice?
    B) What is the geographical distribution of each agricultural practice?
    C) Why is this type of agricultural practiced where it is?
    D) What are three characteristics for each agricultural practice?
    E) What are two future challenges for each agricultural practice?
24. In United States, the number of family owned farms is decreasing while the average size of farms is increasing. These recent trends make it more difficult for individually-owned farming operations to compete against corporate owned farms. Choose three examples below and discuss the impact each niche market has made in the United States. Give specific examples.
    A) organic agriculture.
    B) eat locally and in-season movement.
    C) sustainable agriculture.
    D) fair trade movement.

OUTLINE NOTES

I. History
   A. Around ten to twelve thousand years ago, human began to domesticate plants and animals for food.

   B. Before this first agricultural revolution, people relied on _____ to obtain food supplies.
      1. lived in small groups (usually fewer than 50 people)
      2. division of labor—_____ hunted game or fished, _____ collected berries, nuts and roots.
      3. Moved frequently

C. While there are still groups of hunters and gatherers in the world, most societies have switched to _____.

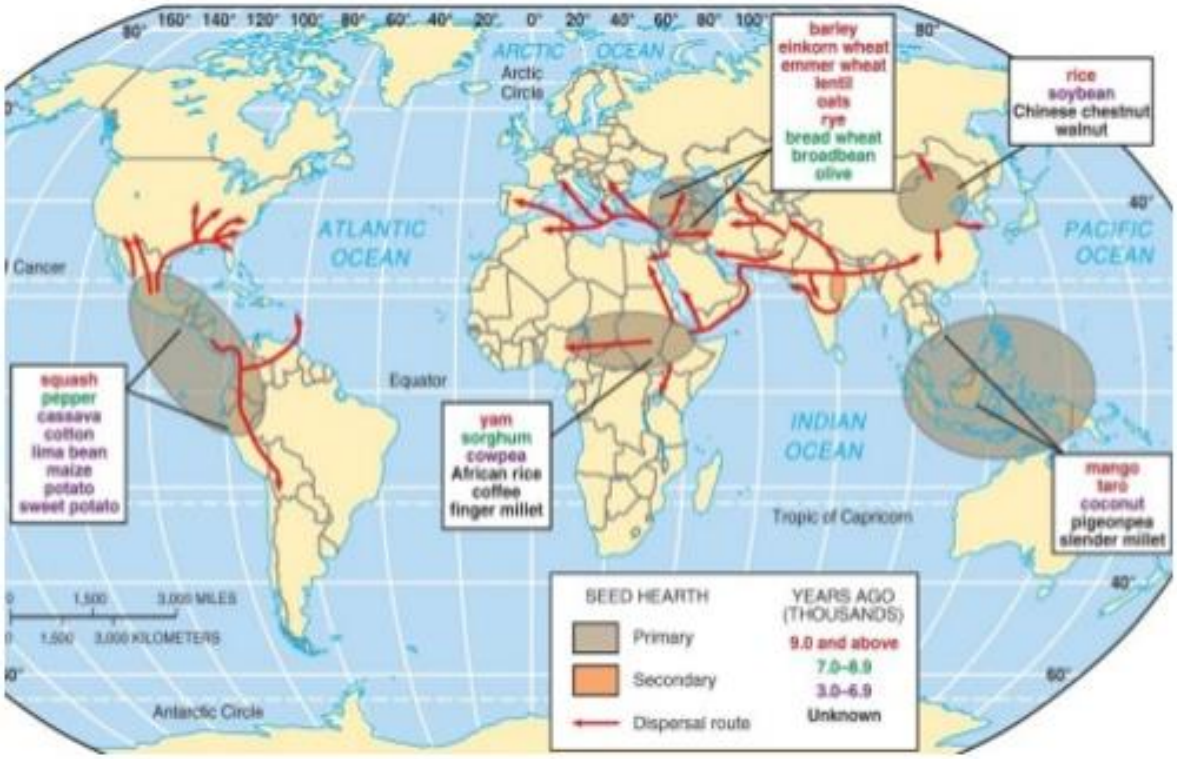
1. Today there are only about a _____ people (less than .005 % of the world's population) still _____
2. Live in _____ areas including the Arctic and the interior of Africa, Australia, and South America (examples include the African Bushmen of Namibia and Botswana and the Aborigines in Australia)

II. First Agricultural Revolution

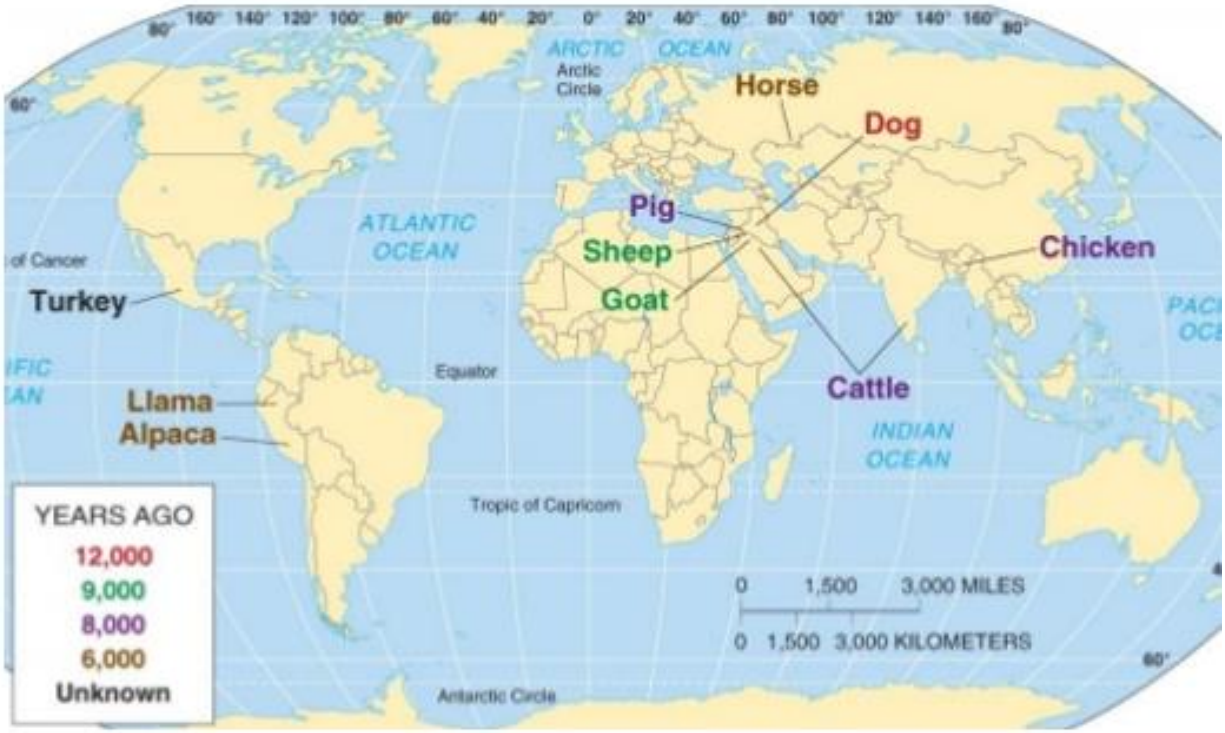
A. The beginnings of agriculture did not just occur in one place but appeared almost simultaneously around the world,

1. possibly through trial and error with different plants and animals or
2. by long term experimentation.
3. Two types of Cultivation
   a. _____—direct cloning of existing plants—cutting stems and dividing roots.

   b. _____—reproduction of plants through annual planting of seeds
4. Location of Agricultural Hearths
   a. _____ (see page 348)



b. (see page 349)



c. Diffusion

B. Between the first agricultural revolution thousands of years ago and the 17th century, agriculture remained pretty much the same.

III. Second Agricultural Revolution

A. In the seventeenth century, a second agricultural revolution took place that increased as well as which allowed more people to move to the cities as the industrial revolution got under way.

B. Tools and equipment were .

C. Methods of soil preparation, fertilization, crop care and harvesting _____.

D. The general organization of agriculture, food storage and distribution was made efficient.

E. Productivity _____

F. The Industrial Revolution helped to sustain the 2nd Agricultural Revolution

1. _____ took over work in the industrializing world

2. _____ also improved.

IV. ***[read page 360]***

A. 1970's-1980's—invention and rapid diffusion of more productive agricultural techniques

1. introduction of _____

a. "miracle _____ seed"

b. also a high yield _____plant

c. more recently they have developed a new high yield _____ plant

2. Expanded the use of _____

3. Problem:
   a. in LDC's farmers cannot afford such equipment and higher fuel costs
   b. the must find funds to subsidize the cost of seeds, fertilizers and machinery
4. The Green Revolution was successful in parts of Asia and Latin America

5. It did not have an impact on _____ and it was not widely successful in _____

V. Third Agricultural Revolution is still in progress
   A. Based on high-yielding strains of grains and crops developed in laboratories using modern techniques of _____.

   B. Genetic altering of plants are producing crops that are _____, have longer _____, are easier to _____
   C. Concerns?

VI. Today
   A. Many of the countries which were once colonies of Europe, especially those in Central America, are still heavily involved in the same types of agricultural production as they were hundreds of years ago.

   B. Farming in the twentieth century has become _____ in more developed nations with geographical technologies like GIS, GPS, and remote sensing while less developed nations continue with practices which are similar to those developed after the first agricultural revolution, thousands of years ago.

   C. About _____ of the world's population makes their living through agriculture.
   D. The proportion of the population involved in agriculture ranges from about _____ in the United States to about _____ in some parts of Asia and Africa.
   E. There are two types of agriculture, _____ and _____.
      1. There are millions of subsistence farmers in the world, those who produce _____
         a. Many subsistence farmers use the _____ or _____ agricultural method. (aka *ladang, milpa, chena,* and *kaingin*)
         b. It's a technique used by about 150 to 200 million people (approximately _____ of the world's population), and is especially prevalent in Africa, Latin America, and Southeast Asia. Primarily in _____

         c. It occupies approximately _____ of the world's land area—a higher percentage than any other type of agriculture.

         d. Declining by about _____ a year—replaced by logging, cattle ranching and cultivation of cash crops.
         e. A portion of land is cleared and burned to provide at least one and up to three years of good crops for that portion of land.
         f. Once the land can no longer be utilized, _____ is slashed and burnt for another round of crops.

g. This is not a neat or well-organized method of agricultural production by it is effective for farmers who don't know much about irrigation, soil, and fertilization. Usually not in neat rectangular fields and rows.
h. They usually grow _____.
i. The precise crops grown by each village vary by local custom and taste.
   1) _____ in SE Asia
   2) _____ (corn) and _____ (cassava) in South America
   3) _____ and _____ in Africa
   4) yams, sugarcane, plantain, and vegetables are also grown in some regions
j. Traditionally, _____.
   Each family is allocated a patch of land
k. Today, there is some private ownership of land especially in _____.

2. The second type of agriculture is commercial agriculture.
   a. where the primary purpose is _____.
   b. This takes place _____ and includes major _____ in Central America as well as _____ in the Midwestern United States. Primarily in _____.
      1) Geographers commonly identify two major "belts" of crops in the U.S.
         a) The _____ is identified as crossing the Dakotas, Nebraska, Kansas, and Oklahoma.
         b) _____, which is primarily grown to _____, reaches from southern Minnesota, across Iowa, Illinois, Indiana, and Ohio.

F. Five principal features distinguish commercial agriculture from subsistence agriculture.

1. _____
   a. Subsistence Agriculture—_____
   —if a surplus happens they may sell it but that is not their main purpose
   b. Commercial Agriculture—grow crops and raise animals primarily _____

2. _____
   a. in less developed countries—_____
   b. in developed countries—_____

3.
   a. Subsistence Agriculture—_____
   b. Commercial Agriculture—_____
   tractors, combines, corn pickers, planters, etc.] and for _____

4. _____
   a. Subsistence Agriculture—_____
   —usually only large enough _____.
   b. Commercial Agriculture—_____

5. _____

   a. Subsistence Agriculture—_____

   b. Commercial Agriculture—_____

   _____, etc.

   Today in the US _____ of labor works in food production related to agribusiness—_____

   _____ Also _____

   _____

V. Where Are Agricultural Regions in Less Developed Countries?

A. Shifting Cultivation *see VI.E.1 above*

B. Pastoral Nomadism

1. usually in _____ climates where planting crops is impossible.
2. _____, _____ and parts of_____
   (ex. Bedouins in Saudi Arabia and Masai in East Africa)
3. _____million people are pastoral nomads on about _____% of the total land area of Earth.
4. Depend _____—milk, skin and hair (clothing and tents), but rarely _____.
   a. may _____
   b. part of a nomadic group (women and children perhaps) will _____

      _____
   c. May _____, or
   d. They may _____ and _____.
5. Type of animal depends on local cultural and physical characteristics
   a. _____ in North Africa and the Middle East followed by _____
   b. _____ in Central Asia

6. Have strong sense of _____
   a. size of area and herd depends on and
   b. need large enough area to survive.
7. Some practice transhumance—_____

   _____

8. Declining
   a. partly victim of modern technology—_____

      _____
   b. _____ want the land for other uses—try to force groups to give up pastoral nomadism
      1) _____
      2) _____

C. Intensive Subsistence Agriculture

1. _____of the world's population lives in LDC's and must feed them

2. farmers must _____ to survive (parcels grow _____ as the population increases)
3. East, South, and Southeast Asia
4. Ratio of farmers to arable land is _____
5. To maximize food production—_____.
6. Livestock is _____
7. Wet Rice Dominant
   a. plant rice on dry land in a _____ and then move the seedlings to _____ to promote growth
   b. SE China, East India, and SE Asia
   c. _____
   d. In flooded fields called a sawah (we call it a paddy—but correct a paddy is really a Malay word for wet rice)
   e. Often _____—have two harvests in one year from one field
8. Wet Rice Not Dominant
   a. interior India and northern China
   b. _____ most important
   c. than _____
   d. other crops include—millet, oats, corn, kaoliang, sorghum and soybeans
   e. some crops for cash—cotton, flax, hemp and tobacco

VI. Where Are Agricultural Regions in More Developed Countries?

A. Mixed Crop and Livestock Farming

1. Most common in the US _____ and in much of Europe _____
2. Integrates _____
3. Most of the crops are fed _____ rather than being consumed directly by humans.
4. In turn animals provide _____
5. A typical mixed commercial farm devotes _____ to _____ but derives more than _____ of its income from the sale of animal products (beef, milk, eggs, etc.)
6. Balance out the work load and reduces the seasonal variation of income
7. Soil _____ is usually very important—including _____ (By not growing the same crop every year you are not extracting the same nutrients out of the soil. Also you might leave a field fallow or plant it with a legume for grazing and plowing under every 3 to 4 years.)
8. _____ is grown in the US by most mixed farmers
   a. some is _____ (corn, oil, margarine, etc.)
   b. most is _____
9. _____ are the second most important crop in the US.

B. Dairy Farming

1. Near _____ of NE US, SE Canada and NW Europe
2. _____ in NA and Western Europe, Russia, Australia and New Zealand
3. These areas produce nearly _____ supply of milk
4. Located _____ because of transportation factors and perishability
5. Ring around a city from which milk can be supplied without being spoiled is the _____

6. Improved technology has _____ —transportation, refrigeration, pasteurization
7. _____ can also be done further from the market.
   Also _____ (Wisconsin to NE US, New Zealand to UK)
8. Problems
   a. _____—milk twice a day, everyday—cannot leave it
   b. _____.

C. Grain Farming

1. _____ etc.
2. Grown mainly for _____ consumption rather than _____ such as on mixed farms
3. Commercial grain farmers sell their crops to _____, like breakfast cereals and snack food makers.
4. Wheat is the most important—most used to make _____
   a. _____
   b. _____
   c. _____

5. Regions
   a. US—_____—
      1) _____—Kansas, Colorado, Oklahoma
      2) _____—Dakotas, Montana, Saskatchewan in Canada
      3) Palouse region in Washington State
   b. Few other countries—_____
   c. Usually drier than mixed crop and livestock agricultural areas
6. _____, _____ and oriented to _____
7. Wheat is _____ —_____ account for ½ of the world's exports

D. Livestock Ranching

1. Ranching is the _____
2. Adapted to _____ lands in MDC's
3. _____ today in US is on government leased land
4. Cattle are still raised on ranches but are frequently sent to _____ for fattening near major railroad and highway routes.
5. Ranches are large—many owned by _____ companies rather than individuals today
6. Regions
   a. Rare in Europe except in _____

b. South America—Pampas of _____
c. _____—mainly sheep
d. —mainly sheep

E. Mediterranean Agriculture

1. Regions
   a. Primarily around the Mediterranean Sea
   b. _____
   c. _____
   d. Southwest part of _____
   e. Southern _____
2. Conditions
   a. _____
   b. primarily _____ (exception the Mediterranean Sea)
   c. prevailing winds provide _____
   d. _____ temperatures
   e. summers are _____
   f. land is _____
3. _____—the growing of fruits, vegetables and flowers—and _____ form the commercial base
   a. most of the world's _____
   b. _____ within the farming area
   c. in the Mediterranean Sea countries—two most important cash crops are _____
      (2/3 of wine produced in Italy, France and Spain) (other 1/3 in Mediterranean Agricultural Regions around the world) (some countries in the Middle East will not produce wine because of religion)
4. Half of the land is devoted to growing _____ (wheat for pasta and bread) except in _____
5. In California land is devoted to _____

F. Commercial Gardening and fruit farming
1. Predominant in the _____
2. Long growing season, humid climate
3. _____
4. Fruits and vegetable such as apples, asparagus, cherries, lettuce, mushrooms and tomatoes
5. Sold _____ and to _____
6. Highly efficient large scale operations
7. Rely on _____—travel with the harvests.

G. Plantation Agriculture
1. Tropics and subtropics especially in _____.
2. Often owned or operated by _____
3. Grow crops for sale in _____
4. Plantation is a large farm specializing in 1 or 2 crops such as cotton, sugarcane, coffee, rubber, tobacco, cocao, jute, bananas, tea, coconuts, an .

5. Workers are often imported
6. Crops are normally _____

VII. Why Does Agriculture Vary Among Regions?

A. _____ Factors

1. some relationship between _____
2. _____ explain some differences

B. Economic Issues for Subsistence Farmers

1. increasing populations in LDC's _____
2. land is left fallow for _____
3. new farming techniques _____
4. switching to growing crops _____—less food for _____—causing problems
5. often the export crop is _____

C. Economic Issues for Commercial Farmers

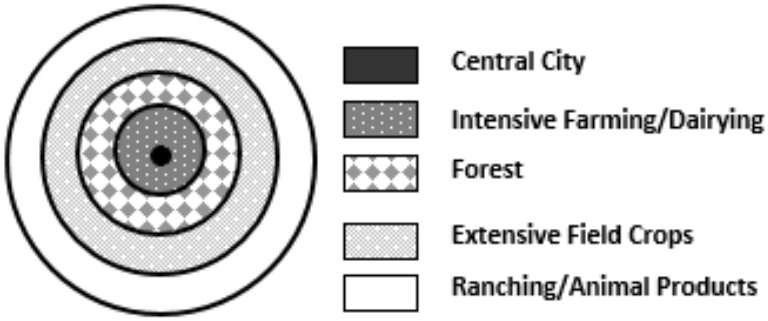
1. J.H. Von Thünen developed a model in 1826 (which wasn't translated into English until 1966) for the agricultural use of land.
2. It has been utilized by geographers since that time.
3. His theory stated that the more perishable and heavier products would be grown closer to urban areas.
4. By looking at the crops grown within metropolitan areas in the U.S., we can see that his theory still holds true.
   a. It is very common for perishable vegetables and fruits to be grown within metropolitan areas while
   b. less-perishable grain is predominantly produced in non-metropolitan counties.

The Von Thünen Model

The Von Thünen model of agricultural land use was created by farmer and amateur economist J.H. Von Thünen. His model was created before industrialization and is based on the following **limiting assumptions**:

- The city is located centrally within an "Isolated State" which is self-sufficient and has no external influences.
- The Isolated State is surrounded by an unoccupied wilderness.
- The land of the State is completely flat and has no rivers or mountains to interrupt the terrain.
- The soil quality and climate are consistent throughout the State.
- Farmers in the Isolated State transport their own goods to market via oxcart, across land, directly to the central city. Therefore, there are no roads.
- Farmers act to maximize profits.

In an Isolated State with the foregoing statements being true, Von Thünen hypothesized that the following pattern would develop:



There are **four rings** of agricultural activity surrounding the city. Dairying and intensive farming occur in the ring closest to the city (**zone 1**). Since vegetables, fruit, milk and other dairy products must get to market quickly, they would be produced close to the city (remember, we don't have refrigerated oxcarts!)

Timber and firewood would be produced for fuel and building materials in the **second zone**. Before industrialization (and coal power), wood was a very important fuel for heating and cooking. Wood is very heavy and difficult to transport so it is located as close to the city as possible.

The **third zone** consists of extensive fields crops such as grains for bread. Since grains last longer than dairy products and are much lighter than fuel, reducing transport costs, they can be located further from the city.

Ranching is located in the **final ring** surrounding the central city. Animals can be raised far from the city because they are self-transporting. Animals can walk to the central city for sale or for butchering.

Beyond the fourth ring lies the unoccupied wilderness, which is too great a distance from the central city for any type of agricultural product.

Even though the Von Thünen model was created in a time before factories, highways, and even railroads, it is still an important model in geography. The Von Thünen model is an excellent illustration of the balance between **land cost and transportation costs**. As one gets closer to a city the **price of land increases**. The farmers of the Isolated State balance the **cost of transportation, land, and profit** and produce the most cost-effective product for market. Of course, in the real world, things don't happen exactly as they would in a model.

VIII. Agriculture uses about a _____ of the land on the planet and occupies the lives of about two and a half billion people.

IX. It's important to understand where our food comes from.

X. Agriculture Issues Today

A. Economic problems in LDC's

1. Population Growth and Food

a. _____

1) intensive vs. extensive subsistence farming

2) must feed more people

b. more people have _____

—they need food but they are no longer producing food

c. Land is being _____—less time allowed to for the land to regenerate.

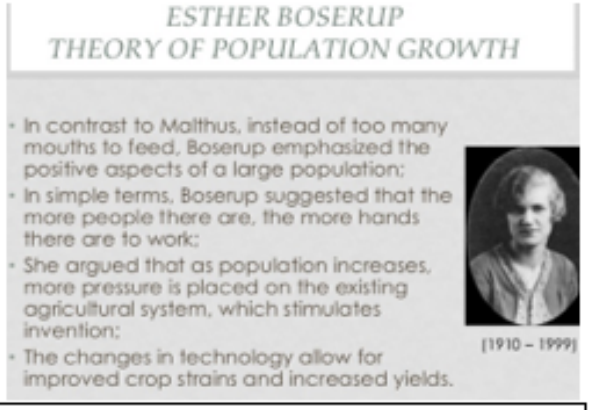
d. Ester Boserup Theory

1) An increase in population will simply stimulate scientists to come up with ideas to _____

2) "Necessity is the mother of invention."

3) Productivity has been _____ by adopting new _____:

- Reclaiming land from the sea
- Selective breeding and cross breeding
- Developing high-yield plants
- Genetic modification
- Terracing
- Hydroponics
- Greenhouses
- Irrigation
- Artificial fertilizers
- Switching to new crops (ex. soya)
- Fish farming



How many of these methods are being used in LDC's?
Can LDC's afford all of these farming techniques?

2. International Trade
   a. need for _____
   b. must produce crops for sale to _____ (money may or may not be reinvested, used for the subsistence crops, or to feed people in urban areas)—takes land that was once used to feed the people
   c. also impacts gender roles—_____ grow subsistence crops—_____ grow crops for trade—money may or may not be invested in the support of the family
3. Food Supply
   a. influenced by _____
   b. over use of land –leads to _____
   c. _____ limits the amount of money a farmer can ask for his crops to keep the people in urban areas happy (why?)
   d. _____—little incentive for farmers to produce more.
4. Drug Crops (_____)
   a. more _____ in growing drugs for _____
   b. more land _____
5. Food Prices—record high—agricultural land prices are also higher
   a. _____
   b. _____ (especially in China and India)
   c. _____ not keeping up with growing population
   d. other uses of crops such as _____

B. Economic problems in MDC's

1. _____
2. _____

C. Need to increase food supplies

1. _____
2. Need for more _____
3. Need to expand _____
4. Increasing _____

D. Sustainable Agriculture

1. _____
2. _____
3. _____

Unit VI. Industrialization and Economic Development

Students learn about the geographic elements of industrialization and economicdevelopment, including past and present patterns of industrialization, types of economic sectors, and the acquisition of comparative advantage and complementarity. Students also learn how models of economic development (e.g., Rostow's stages of economic growth and Wallerstein's world-systems theory) help to explain why the world is divided into a more developed economic core and a less developed periphery with (in some cases) a semiperiphery between them.

The analysis of contemporary patterns of industrialization and their impact on development is another important focus. Students use measures of development (e.g., gross domestic product per capita and the Human Development Index [HDI]) as tools to understand patterns of economic differences. Additional topics to be studied include Weber's industrial location theory and accounts of economic globalization, which accent time–space compression and the new international division of labor. For example, students analyze the reasons why some Asian economies achieved rapid rates of growth in the mid- to late 20th century, whereasthe economies of most countries south of the Sahara did not.

Students also examine the ways in which countries, regions, and communities must confront new patterns of economic inequality that are linked to geographies of interdependence in the world economy. Relevant topics include the global financial crisis, the shift in manufacturing to newly industrializedcountries (NICs), imbalances in consumption patterns, the roles of women in the labor force, energy use, the conservation of resources, and the impact of pollution on the environment and quality of life.

[Course Description: Human Geography, 2015,
The College Board Advanced Placement Program.]

ENDURING UNDERSTANDING

A. The Industrial Revolution, as it diffused from its hearth, facilitated improvements in standards of living.

B. Measures of development are used to understand patterns of social and economic differences at a variety of scales.

C. Development is a process that varies across space and time.

D. Sustainable development is a strategy to address resource depletion and environmental degradation.

LEARNING OBJECTIVES

- Explain the role of the Industrial Revolution in the growth and diffusion of industrialization.
- Identify the different economic sectors.
- Use Weber's model to explain industrial location.
- Explain social and economic measures of development.
- Analyze spatial patterns of economic and social development.
- Evaluate the role of women in economic development and gender equity in the workforce.
- Analyze the causes/consequences of intern. trade and growing interdependence in the world econ.

- Explain how economic restructuring and deindustrialization are transforming the contemporary economic landscape.
- Analyze sustainability issues related to industrialization and development.

ESSENTIAL KNOWLEDGE

- Industrialization began in response to new technologies and was facilitated by the availability of natural resources (e.g., water power, coal, iron ore).
- The diffusion of industrialization led to growing populations and increased food supplies, which freed workers to seek industrial jobs in cities.
- Increased industrialization led to demands for raw materials and the search for new markets and was a factor in the rise of colonialism and imperialism.
- The economy consists of primary, secondary, tertiary, quaternary, and quinary sectors.
- Alfred Weber's model of industrial location emphasized the owner's desire to minimize transportation and labor costs and maximize agglomeration economies.
- Measures of social and economic development include Gross National Income (GNI) per capita, sectoral structure of an economy, income distribution, fertility rates, infant mortality rates, access to health care, and literacy rates.
- Measures of gender inequality include reproductive health, indices of empowerment, and labor-market participation.
- The Human Development Index (HDI) is a composite measure used to show spatial variation in levels of development.
- Models like Rostow's Stages of Economic Growth and Wallerstein's World System Theory help explain spatial variations in development.
- The U.N. Millennium Development Goals help measure progress in development.
- In contrast to the periphery and semiperiphery, the core countries achieved dominance through industrial production of goods.
- Although there are more women in the workforce, they do not have equity in wages or employment opportunities.
- Microloans have provided opportunities for women to create small local businesses, which have improved standards of living.
- Complementarity and comparative advantage establish the basis for trade.
- International trade and trading blocs (e.g., EU and NAFTA) have become more important as a result of globalization.
- Geographies of interdependence in the world economy include global financial crises, the shift in manufacturing to newly industrialized countries, imbalances in consumption patterns, and the roles of women in the labor force.
- Outsourcing and economic restructuring have led to a decline in jobs in manufacturing regions and to the relocation of a significant segment of the workforce to other areas.

- In countries outside the core, the diffusion of industry has resulted in the emergence of the international division of labor and manufacturing zones (e.g., maquiladoras, special economic zones, free trade zones).
- The contemporary economic landscape has been transformed by the emergence of service sectors, high technology industries, and growth poles (e.g., Silicon Valley and the Research Triangle in the U.S.).
- Government initiatives at all scales may help promote economic development.
- Sustainable development addresses issues of natural resource depletion, mass consumption, the costs and effects of pollution, and the impact of climate change, as well as issues of human health, well-being, and social and economic equity.
- Ecotourism is a strategy used by some countries to help protect the environment and generate jobs.

BASIC VOCABULARY AND CONCEPTS

Economic Development:
Agricultural labor force
Calorie consumption
Core-periphery model (Location and distribution) (Regional disparities)
Cultural convergence
Dependency theory
Development
Economic sectors (primary, secondary, and tertiary) (trends and implications, distribution,
Global trends) (planned, market, and mixed)
Energy consumption
Foreign direct investment
Gender Empowerment Index (GEM)
Globalization and trade
Globalization's impact on local economies
Gross domestic product (GDP)
Gross national product (GNP)
Human Development Index (HDI) (Geographic distribution, The north/south split
Informal economy
Levels of development
Manufacturing regions of the world
Measures of development
More Developed Countries (MDC) vs. Least Developed Countries (LDC)
Outsourcing
Neo-colonialism
Non-governmental Organizations (NGOs) impact on development issues
Physical Quality of Life Index
Purchasing power parity
Regional trading blocs Rostow, "Stages of Growth" model
Subsistence economies
Technology gap
Technology transfer
Third World
World Systems Theory
Comparative costs of transportation systems

Industrialization:
Acid rain
Agglomeration
Agglomeration economies
Aluminum industry (factors of production, location)
Assembly line production/Fordism
Bid rent theory
Break-of-bulk point
Bulk gaining vs. bulk reducing industries
Growth poles
Heartland/rimland
Industrialization and the Demographic Transition Model (DTM)
Industrial location theory
Industrial pollution issues (air and water pollution)
Industrial regions (place, fuel source, characteristics)
NAFTA
Ozone depletion
Plant location (supplies, "just in time" delivery)
Post-fordism
Postindustrial
Refrigeration
Resource crisis
Resource orientation
Self-sufficiency model

Canadian industrial heartland
Carrier efficiency
Comparative advantage
Cottage Industry
Cumulative causation
Debt crisis
Deglomeration
Deindustrialization
Economic sectors
Economies of scale
Eco-tourism
Energy resources
Entrepot
Export processing zone
Fair Trade movement
Fixed costs
Footloose industry
Fordism
Four Tigers
Global Warming
Greenhouse effect
Industrial Revolution (definition, origin, growth, and diffusion)
Industry (receding, growing)
Infrastructure
International division of labor
International trade approach (Rostow)
Just-in-time manufacturing
Labor-intensive
Least-cost location
Major manufacturing regions
Manufacturing exports
Manufacturing/warehouse location (industrial parks, agglomeration, shared services, zoning, transportation, taxes, environmental considerations)
Maquiladora
Market orientation
Micro-lending (Gramin Bank)
Multiplier effect
Site factors of industrial location
Situational factors of industrial location
Special Economic Zones (China)
Specialized Economic Zones (Manufacturing export zone; high-tech zone)
Substitution principle
Threshold/range
Time-space compression
topocide
Tourism
Trade (complementarity)
Transnational corporation
Ubiquitous
Variable costs
Weber, Alfred and Least Cost Theory
Weight-gaining
Weight-losing
World cities

Study Questions

1. Define economic geography.
2. Compare and contrast the differences that distinguish the developing from the developed world.
3. What are primary, secondary, tertiary, quaternary and quaternary industries?
4. Discuss in detail how the employment mix between primary, secondary, and tertiary sectors of an economy changes as a country increases its level of development from a Least Developed Country (LDC) to a Newly Industrialized Country (NIC) to a More Developed Country (MDC).
5. The United Nations created the Human Development Index (HDI) in order to statistically evaluate a country's level of development.
   A) What is the Human Development Index (HDI)?
      i. What are the four statistics used in the HDI?
      ii. What does each statistic measure?
      iii. How does each statistic measure development?
      iv. Describe the effectiveness of the HDI in evaluating a country's level of development.
   B) Using the HDI, describe the present geographic distribution of wealth in the world today.
   C) How would this spatial arrangement change if one looked at a world map with a north polar projection?
6. What are the major principles of the central place theory?
7. Discuss the impact of globalization on modern world cities.
8. Globalization of the world's economy continues to have positive and negative consequences.
   A) Define globalization.
   B) Give an example of one significant economic impact of globalization in a specific country and examine how this impact may be viewed as both a positive and negative.

C) Give an example of one significant cultural impact of globalization in a specific country and examine how this impact may be viewed as both a positive and negative.

9. Describe some to the disparities in the core-periphery relationships among different regions of the world.
10. Using site and situational factors, discuss in detail the changing geography of one of the following industries:
    A) textiles. B) automobiles. C) meat packing.
11. Discuss the relationship between politics and economic development.
12. Select a model for development and analyze its strengths and weaknesses in terms of facilitating or inhibiting a country's economic growth.
13. Describe the five stages of Rostow's modernization model. Evaluate its accuracy as a predictor of a country's struggle for economic development.
14. Explain why there are regional economic differences with a country.
15. Describe Weber's least cost theory.
16. Describe the physical and human features commonly shared by the world's four industrial regions.
17. Using a cultural and environmental perspective, evaluate the major positive and negative impacts of industrialization.
18. Explain the causes of deindustrialization.
19. Evaluate the importance of the *maquiladora* as new economic expressions in the world economy.
20. Explain the role economic cooperative organizations have in today's global economy.
21. What are site factors and situation factors which influence the location of factories?
22. How role does bulk-gaining and bulk-losing factors play in the location of factories?
23. What were the "four dragons" and what role did they play in the development of the economies in East Asia?
24. Since the mid 20th century, a number of development strategies (schools of thought) have been used by developing countries to improve their economies and quality of life. Choose two strategies (schools of thought) listed below and answer A, B, and C for each strategy.

    i. self-sufficiency. (international trade approach).
    ii. modernization. v. sustainable development
    iii. dependency.
    iv. neoliberal counterrevolution

    A) When was this strategy popular and what are the main components to the strategy?
    B) Describe in detail the strategies this school of thought employs?
    C) Give an example of a (country/region) where this development strategy was used and assess its effectiveness.
25. Tourism is now the largest economy in the world. Many national, state, regional, and local governments use tourism as an economic development strategy.
    A) Analyze the effectiveness of using tourism as a development strategy for a specific Least Developed Country (LDC).
    B) Analyze the effectiveness of using tourism as a development strategy for a specific More Developed Country (MDC).
    C) Describe two ways that tourism impacts the local cultural landscape. Be specific!
26. Japan's industrial base was devastated after World War II.
    A) Discuss the strategies Japan used to re-industrialize after World War II.
    B) What impact did geography have on Japan's ability to re-industrialize?
    C) Name three countries in Asia that followed Japan's economic lead. How successful have they become and what specific strategies did these countries use?
27. Regardless of a particular development strategy a country uses, a variety of factors may inhibit or enhance development.

A) Name one country from sub-Saharan Africa, Latin America, or Asia and use three items from the list below to describe how these factors have inhibited development.
i. physical environment. ii. debt. iii. over dependence on primary products.
iv. legacy of colonialism. v. political instability/corruption.

B) Name one country from sub-Saharan Africa, Latin America, or Asia and use three items from the list below to describe how these factors have enhanced development efforts.
i. geographic comparative advantage.
ii. high skilled workers.
iii. large population.
iv. economic reforms/policies/export processing zones (EPZs).
v. direct foreign investment.

Notes

I. Economic Systems

A. patterns of _____ and _____ and the _____ within each system

1. _____ economic systems
2. _____ economic systems
3. _____ economic systems

B. Distribution?

1. Most countries show _____ of each system
2. Dual economies -- rural versus urban

C. Technology Systems affect geography of economic development and systems

II. Characteristics of Each System

A. Subsistence

1. _____ regions;
2. _____ agriculture vs. _____ agriculture (pastoralism);
3. one crop _____ economies--specialization based on colonial relationships

B. Market

1. _____economies, hierarchically & spatially linked in _____

   a. _____
   b. _____ even in agriculture.
   c. _____

2. Economic location decisions based on…

   a. _____ to material inputs (raw materials)
   b. _____

c. _____ (land, taxes, energy)

d. relative _____

e. _____ at other locations (_____)

f. local _____

3. weight_____ versus weight

_____ (weight, bulk, perishability, fragility)

4. Goal: Maximize profit
   a. _____ (skill labor, environment, resources)
   b. _____ and _____
   c. trade -->networks -->interdependence (agglomeration effects--cluster advantages)
   d. _____ opportunity?
   e. _____ and _____?

5. Four Kinds of Economic Activities
   a. Primary
   b. Secondary
   c. Tertiary
   d. Quaternary
6. location of activities in each sector?

Four Kinds of Economic Activities
Primary, Secondary, Tertiary, Quaternary Economic Activities
Economic activities can be categorized into four types.

Primary economic activities are those that use natural resources directly.

Secondary economic activities use raw materials to produce or manufacture something new and more valuable. Examples of secondary economic activities include manufacturing steel, processing wheat into flour, milling lumber into plywood, iron smelting, chemical industries, power production, and construction.

Tertiary economic activities are those activities which provide services, personal and professional services such as doctors, teachers, dry cleaners, and secretaries as well as retail and wholesale services such as store clerks, truck drivers, and fast-food providers.
In modern economies some individuals process, administer, and disseminate information. Such activities are termed **quaternary** which is used to describe "white collar" professionals working in education, government, management, information processing, and research. profit). In the case of flour and bread, it is cheaper (and easier) to ship wheat than the finished product, bread. Consequently, bakeries are located close to consumers in cities, again, to minimize costs.

Location of Economic Activities

Geographers are concerned with the **spatial organization and location** of economic, transportation, and communication systems which produce and exchange the great variety of commodities (raw materials, manufactured goods, capital, and services) which constitute the world economy.

Primary economic activities are located at the site of the natural resource being exploited, for example, iron mining at the site of the iron deposit.

Secondary economic activities locate either at the site of the resource or close to the market for the manufactured/processed good depending upon whether which affect the location of economic activities (labor costs, energy costs, availability of capital, land, resources, and expertise). In the case of lumbering, the finished product is cheaper to ship than the raw materials so lumber mills are located close to forests to minimize costs (and maximize **Tertiary economic activities** locate where services are required, that is, where people are.

Quaternary economic activities are not tied to resources, the environment, or access to a market. With improvements in telecommunications, these economic activities can be located anywhere. Factors which do tend to affect the location of "high-tech" economic activities include access to universities and research centers and to a pool of highly trained and skilled workers, availability of venture capital, proximity to places with high quality of life attributes (scenery, recreation, climate, quality education system) and access to excellent transportation and communication networks.

7. Patterns of Economic Development
   a. economic development can be defined as the extent to which the _____ have been brought into _____.
   b. most _____ nations are located in the "_____" part of the world
   c. most _____ nations are in the "_____" half of the world.
   d. People talk about this in terms of the _____. Other people see this in terms of _____ relations.
   e. This pattern may be explained by a number of different factors including
      1) _____
      2) _____
      3) former _____ status
      4) _____in relation to the core vs. the periphery
   f. but there is no _____ reason to explain the level of economic development in most countries.

C. Planned Economies

1. _____ to achieve _____ objectives
2. _____ control _____
3. decide _____ to grow on _____ (not profit) criteria

III. Economic Development

A. Definition:
   1. Development—The increase in _____ per person, involving a significant _____ in society.
   2. Growth—Increase in _____ without change in _____
3. Processes of change:
   1. changes in _____ of region's economy
   2. changes in _____ of economic organization
   3. changes in _____ of technology

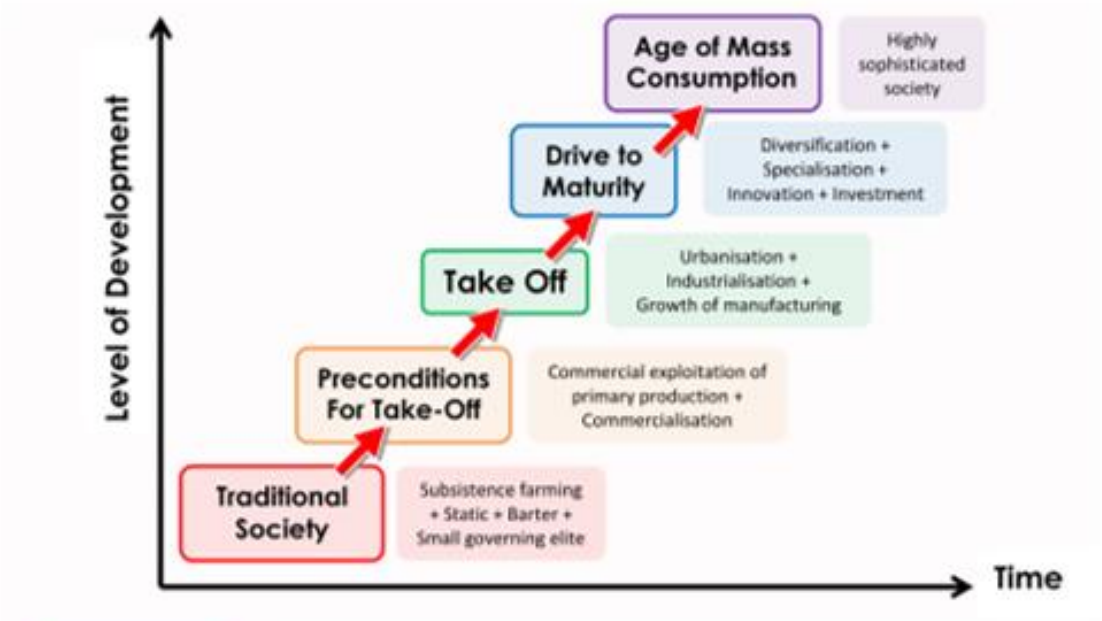
C. Economic development _____

D. core-periphery patterns

E. resources _____

F. imperialism/colonialism

G. Rostow's 5 States of Economic Growth



Traditional Society

Society is **very primitive** with **very limited technology** and a reliance on **subsistence farming**. People rely on community bartering rather than advanced coinage/banking. Society is governed by a small wealthy **ruling elite** with strong traditional values

Preconditions For Take-Off

Citizens see possibilities of improvement. Growing **specialisation** and **commercialisation** of skills and **investment in infrastructure**. Increasing focus on **exports** (of primary production such as mining and farming) and fuelling investment through surpluses

Take Off

Economic growth becomes **self sustaining**. Huge technological advancement = development of domestic manufacturing sector. Agriculture output/worker increases as do services. **Urban flight + rural depopulation** skyrockets (regional city growth). Political modernisation = growing democratisation (demands). Greater pending on education and social development

Drive to Maturity

Range of **domestic production** widens – country replaces imports with domestic production (**import substitution**). Increasing **diversification** and **investment** (from home and abroad). Increasing need for innovation for efficiency gains in existing techniques

Age of Mass Consumption

Economy becomes heavily geared toward **service provision** (consumer orientation) due to exploiting comparative advantages in trade. High quality world class **infrastructure** is now in existence. Citizenry demand **consumer durable goods**

H. result: _____

I. Characteristics of Developed versus Less Developed Countries

Less Developed	Developed
Per capita incomes are low, and capital is scarce.	Per capita incomes are high and capital is readily available.
Wealth is unevenly distributed within individual countries, e.g., Colombia, 2.6% of population owns 40% of the national wealth.	Wealth is comparatively evenly distributed, e.g., Canada, 10% of population owns 24% of national wealth.
Primary industries dominate national economies.	Manufacturing and service industries dominate national economies.
High proportion of population engaged in subsistence agriculture.	Farming is commercial, efficient, and mechanized.
Populations are rural; but cities are growing rapidly.	Populations urban, cities growing slowly.
Birth and death rates are high and life expectancy is low. There tends to be a high proportion of children.	Birth and death rates are low and life expectancy is high. High proportion of people over 60 years old.
Inadequate or unbalanced diets resulting from a low consumption of protein; hunger and malnutrition common.	Adequate supplies of food and balanced diets; overeating sometimes a problem.
Diseases, especially infectious and parasitic diseases, common. Health care poor.	Low incidence of disease; good medical services available.
Overcrowding, poor housing, few public services, bad sanitation--poor social conditions.	Social conditions generally good.
Poor educational facilities, high levels of illiteracy--low levels of scientific and technological development.	Education opportunities excellent, high literacy, advanced science and technology.
Women may be held in an inferior position in society.	Women are increasingly treated on equal terms with men.

IV. Geography of Global Economic Change

A. _____

B. changes in _____ engaged in certain occupations

C. _____ of finance

D. _____

E. growth of _____

Developing A World System: Global Economic Interdependence

In the last two decades the United States economy has changed from **industrial** to **post-industrial**. This has meant that many manufacturing and processing jobs have moved from the US overseas to cheaper wage regions. More people in our nation are employed in **service** (tertiary and quaternary) jobs. We are linked economically with all regions of the world (think of profit, specialization, complementarily, trade, networks, intervening opportunity and interdependence). This has caused major geo-economic restructuring. The end result has been a global world economy.

The most powerful economic entities in the world are **transnational corporations (TNC's)**, also known as multinational corporations. Exxon, Shell, Hitachi, GM, Nestle's and Nissan are all TNCs. These companies are global in their investments and operations. They are not American, Japanese, Dutch or Swiss companies --they are world (transnational) companies. The TNCs are highly concentrated geographically in advanced economies, e.g., Japan, US, Canada, and Western European nations like Germany and France. Together they produce 70% of global foreign investment. This money flows into the developing world, especially into **NICs--newly industrialized countrie**s like Taiwan, Singapore, and China. The investment has caused these nations to industrialize very rapidly.

At the same time, command economic systems have collapsed in many nations, e.g., Russia, Poland, and Hungary, while others have undergone liberalization and privatization, e.g., China. These countries are in the process of creating market economies. New **trade agreements** and liberal trade policies have been initiated worldwide, e.g., European Union, NAFTA, GATT. The world economy is therefore becoming even more transnational. Two sectors of the economy have been especially affected by globalization--financial services and agriculture. What happens on the stock exchange in Tokyo affects the economies of the US and Germany, and visa versa. Banking is a 24-hour, worldwide operation. With an ATM card you can get money in almost any nation in the world instantly. And think about where your food comes from--an integrated global agrifood system.

The result of this global economic change is an uneven pattern of world development. Eastern Europe, Latin America, and Africa are not growing economically; the NICs of Asia are. In the Pacific Rim the first NICs to "take off" were Taiwan, Singapore, South Korea, and Hong Kong. The new, emerging powers are Thailand, China, and Malaysia.
The result? The end of the Cold War looks as though it has been replaced by new forms of North-South dependency and core-periphery relations. The global polarization of income and wealth is worse and more distinct than ever before. The prospect for economic development in most regions of the world is bleak. In the US and Europe, economic restructuring (from industrial to post-industrial) has changed conditions and, thus, the shape and character of many national economies. In the UK, Sweden, Finland, Germany, and others nations, the "welfare" services offered under socialism, such as health, education, childcare, and unemployment benefits, have been sharply reduced.

V. Industrialization

A. The _____

1 Began in the _____ in the late 1700's

2 Changed how goods are _____ and the ways people _____

3 Prior to the Industrial Revolution people made tools _____ _____ or in _____ [Home-based manufacturing is known as _____.]

4 Most important invention to the development of factories was the _____

B. _____ of the Industrial Revolution

1. _____ Industry—1st to increase production

a. _____ Industry generated innovations in _____ and other industries.

2. _____ Industry (_____)—2nd

a. _____ Industry developed from _____ Industry

b. _____ developed from _____ Industry

C. Distribution

1. 3/4 of the world's production is concentrated in three regions—(approx.. 1/4 each)

a. _____

b. _____

c. _____
[the leading industrial producers outside of these three regions are _____ and _____)

2. Occupies _____ of the Earth's land area

[See Worksheet—LOCATION OF INDUSTRIAL REGIONS AROUND THE WORLD]

3. North America

a. due to _____ factors

1) 1st settled by _____

2) tied to _____ markets and industries

b. due to _____ factors

1) has essential _____ including _____

2) good _____ system

c. Original Industrial Regions within North America

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

d. Changing distribution in the US since World War II

1) _____

2) _____

3) _____

4. Europe

a. Western Europe

1) Rhine-Ruhr Valley—_____

2) _____

3) _____

4) Northern Italy—_____ River Basin

5) _____

b. Eastern Europe

1) Central Industrial District—centered on _____

2) _____ Industrial District

3) The _____Industrial District

4) The _____ Industrial District

5) Kuznetsk Industrial District

6) Eastern Ukraine Industrial District

7) Silesia—southern Poland and northern Czech Republic

5. East Asia

a. Japan

b. China

1) Tianjin, Beijing, & Shenyang

2) Yangtze River Valley

3) Guangdong Province & Hong Kong

c. South Korea

d. Taiwan (?)

D. Why are distributions different?

Industry seeks to maximize profits by _____ production costs.

1. Situation Factors—involve transporting materials to and from a factory. Want to minimize the cost of transporting inputs (materials, energy, machinery, services, etc.) to the factory and finished goods to the consumers.

a. Location Near Inputs
   1) minerals, wood, animals, etc. from the _____ or parts or materials made by other companies
   2) If weight and bulk of any one input is greater than the others the firm may locate near the _____ to minimize transportation costs
   3) Copper Industry—_____—heavy, a lot of waste
      a) bulk-reducing industry
      b) concentration mills—eliminate waste located near the source
      c) smelters—remove impurities of copper
      d) refineries may be located in other locations—such as _____
   4) Steel Industry—similar to copper industry
      a) industry shifted as source changed from Pittsburgh area to Chicago area with _____ found in Minnesota
      b) today, shifted to East Coast with larger percentage of _____ _____—more market orientated because once on the ships they can be brought into any port.

b. Location Near Markets
   1) **Bulk-Gaining Industries**
      a) product gains in _____ during production—
         11) soft-drink bottling—gains in _____
            aa) syrup (relatively concentrated and easy to_____)
            bb) water (relatively bulky, heavy and expensive to _____)—widely available
            cc) bottle or can (don't gain or change until the product is added)
            dd) bottlers are located _____
         22) assumes _____ with enough demand—if not might limit number of bottling plants
         33) fabricated-metals industry—gains _____
            aa) assembles manufactured parts into a more complex product
            bb) TV's, refrigerators, motor vehicles, etc.
            cc) Automobile plants are located in the interior of the country near interstate highways today as they produce a distinct type of vehicle and then transport it from a central location.

dd) Historically, they would build a few models for distribution in smaller regions from many regional assembly factories.

1) Single-Market Manufacturers—make products sold in primarily

_____

a) fashion clothing and supporting industries (clasps, clips, pins, zippers, etc) are located in a _____ such as New York City.
b) Buyers come once or twice a year and products are ordered and must produced and shipped as quickly as possible
c) Auto parts with only one or two customers (the major automobile manufactures) locate near _____
d) _____ delivery has become important so assembly factories don't have to warehouse parts. They are delivered "just-in-time" to be used.

2) Perishable Products—must be near _____

a) _____ (information) are all _____.
b) If fresh food is frozen, canned, and preserved they can locate _____ such as cheese and butter.

3) Ship, Rail, Truck or Air?

a) firms seek to find the lowest cost
b) distance determines the cost of _____
c) the farther something is transported, the _____ _____—don't have to pay for loading and unloading as often
d) trucks—short-distance deliveries—loaded and unloaded quickly and cheaply
e) trains—longer distance—more expensive to load and unload
f) ships—attractive for long distance (if a water route is available—it not you have to load and unload an additional time.)
g) air—normally the most expensive—but faster
h) _____—a location where transfer among transportation modes is possible
i) _____—a place, usually a port city, where goods are imported, stored, and transshipped; a break-of-bulk point

2. Site Factors—result from the unique characteristics of a location.

_____ _____ are the three traditional production factors that may vary among locations.

a. _____

1) today most factories are _____ because of cheaper, available land
2) near energy sources—usually look for lower electrical rates
3) amenities at the site are often draws—climate, topography, recreational opportunities, cultural facilities and cost of living.

b. _____—_____ is one in which labor cost is a high percentage of the expense—some need high skilled labor

1) Textile and Clothing Industry
   a) labor intensive but need _____
2) US Textile and Clothing Industry
   a) 19th century in NE were cheap European immigrant labor was available
   b) Then moved to the SE where people were willing to work long hours for small wages because of few jobs available.
3) Skilled Labor Industries
   a) needed in areas such as _____ _____, etc.
   b) usually near main universities
   c) traditionally in large factories each person was assigned one specific task (call Fordist)
   d) post-Fordist work rules expanded jobs to a variety of tasks. Needed to be able to learn and be flexible.

c. _____

1) manufacturers typically have to borrow money to establish new factories or expand existing ones.
2) ¼ of all capital in the US is spent on new industries in the _____
3) local and national governments increasingly attempt to influence the location of industries by providing financial incentives—grants, low-cost loans, and tax breaks

3. Obstacles

a. many industries are "_____"—can locate in a wide variety of places
b. need the knowledge to make good decisions
c. may choose a location based on a goal other than maximum profit
d. limited by time in decision making

E. Problems

1. Industrial Problems from a Global Perspective (most basic is the gap between the world demand and the world capacity to supply them)

a. Stagnant Demand

1) Until 1970's, industrial growth in MDC's occurred because of

_____ _____—

more people with money—demanded more goods—more factories were built—hired more people—more money to be spent—higher demand—more factories were built—etc.

2) Since 1970's, little, if any, _____ —

_____

3) Market is saturated so consumers are looking for quality—lasts longer—

keeping longer—demand_____

b. Increased Capacity Worldwide

1) Today _____ wants to establish its own

industrial base including LDC's

2) Global _____ has exceed the

_____

3) Many companies have closed although governments are _____

_____

to stay open. (avoiding paying unemployment and dealing with social problems with large number of people out of work) (also want their own domestic supply of products for during times of war)

2. Industrial Problems in More Developed Countries

a. All face a similar challenge—to make their industries _____ in

an increasingly integrated global economy

1) MDC's must _____

2) LDC's must _____

b. Impact of trading blocs

1) Cooperation Within Trading Blocs

a) Western Hemisphere

11) _____ —US, Canada, and Mexico—eliminating trade barriers

b) Western Europe

11) _____

c) East Asia

11) Japan companies play trading roles in other East Asia countries but

22) Cooperation is less formal between countries

2) Competition Among Trading Blocs

a) _____ taxes imports

b) _____ has lengthy permit procedures and has quotas on how many automobiles they can export to the US

c) _____ restricted sales of foreign made steel to US to about 20% of US market from 1982-1992

11) were able to reinvest in the industry—built better more efficient factories which led to

22) Large unemployment rates in the steel industry

3) Transnational Corporations

a) _____

_____

b) US, Japan, Germany, France and UK all have transnational corporations

c) _____

d) _____

e) May lower _____ to reduce their production costs (such as labor)

f) _____ has plants in Ohio, Indiana, Kentucky, Michigan, Tennessee, and Illinois

g) _____ has plants in the Carolinas

c. Disparities within trading blocs

1) Disparities Within Western Europe

a) core tends to be _____ whether looking at trading Blocs or within countries

b) peripheral regions tend to be _____

c) the EU assists its three least industrial countries—Greece, Ireland, and Portugal and regions in the UK (Northern Ireland), southern Italy, and most of Spain and declining industrial regions in Denmark, England, France, Italy and Spain

d) using regional incentives and regulations to try to control where new development occurs.

2) Disparities Within the United States

a) concern over incentives and encouragement of the growth of one region over another with the fall in the economy overall

3. Industrial problems in Less Developed Countries

a. Encourage new industrial development

b. Old Problems for LDC's

1) _____

a) far from _____ in MDC's

b) must invest scare funds in _____ facilities

2) Inadequate Infrastructure

a) lack support services such as transportation, communications and domestic sources of equipment, tools and machines needed to build and operate new factories

b) also lack universities to train managers, accountants, and other technical people and highly skilled labor

c. New Problems for LDC's

1) few untapped, unexploited markets

2) must sell to own consumers

3) New international division of labor—transfer some work to LDC's to be done by low-skilled workers and keep jobs that need highly skilled labor in MDC's

NOTES Services

A. Types
   1. Consumer Services
      a. Retail
      b. Personal
   2. Business Services
      a. Producer
      b. Transportation and Similar Services
   3. Public Services
   4. Changes in the Number of Employees

B. Origin
   1. Early Personal Services
   2. Early Public Services
   3. Early Retail and Producer Services

C. In Rural Settlements
   1. Clustered Rural Settlements
      a. Circular
      b. Linear
      c. Colonial American Clustered
   2. Dispersed Rural Settlements
      a. in the United States
      b. Enclosure movement

D. Central Place Theory
   1. Market Area of a Service
   2. Size of Market Area
      a. Range
      b. Threshold

E. Market Area Analysis
   1. Profitability of a Location
   2. Optimal Location within a Market
      a. Best location in a linear settlement
      b. Best location in a nonlinear settlement

F. Hierarchy of Services and Settlement
   1. Nesting of Services and Settlements
   2. Rank-Size Distribution of Settlements

G. World Cities
    1. Ancient World Cities
        a. Earliest Urban Settlements
            1) Ancient Athens
            2) Ancient Rome
        b. Medieval World Cities
        c. Modern World Cities
            1) Business Services in World Cities
            2) Consumer Services in World Cities
            3) Public Services in World Cities
H. Hierarchy of Business Services
    1. World Cities
    2. Command and Control Centers
    3. Specialized Producer-Service Centers
    4. Dependent Centers
I. Economic Base of Settlements
    1. Basic industries
    2. Nonbasic industries
    3. Economic base
    4. Specialization of Cities in Different Services
J. Central Business District
    1. Retail Services in the CBD
        a. Retail services with a high threshold
        b. Retail services with a high range
        c. Retail services serving downtown workers
        d. Producer services
    2. High Land Costs in the CBD
        a. Intensive Land Use
        b. Skyscrapers
    3. Activities excluded from the CBD
        a. declining manufacturing in the CBD
        b. lack of residents in the CBD
    4. European CBD's
K. Suburbanization of Businesses
    1. Suburbanization of Retailing
    2. Suburbanization of Factories and Offices

Unit VII. Cities and Urban Land Use

The course divides urban geography into two subfields. The first is the study of systems of cities, focusing on the location of cities and why cities are where they are. This study involves an examination of such topics as the current and historical distribution of cities; the political, economic, and cultural functions of cities; reasons for differential growth among cities; and types of transportation and communication linkages among cities. Theories of settlement geography, such as Christaller's central place theory, the rank-size rule, and the gravity model, are introduced. Quantitative information on such topics as population growth, migration, zones of influence, and employment is used to analyze changes in the urban hierarchy.

The second subfield of urban geography focuses on the form, internal structure, and landscapes of cities and emphasizes what cities are like as places to live and work. Students are introduced to topics such as the analysis of patterns of urban land use, ethnic segregation, types of intracity transportation, architectural traditions (e.g., neoclassical, modern, and postmodern), cycles of uneven development, and environmental justice (e.g., the disproportionate location of polluting industries and brownfields in low-income or minority residential areas). Students' understanding of cities as places is enhanced by both quantitative data from censuses and qualitative information from narrative accounts and field studies. Students also learn about and apply models of internal city structure and development in the United States and Canada (e.g., Burgess concentric zone model, Hoyt sector model, Harris–Ullman multiple nuclei model, and galactic city model), examine the strengths and weaknesses of these models, and compare and contrast the models with the internal structure of cities outside North America.

Topics such as economic systems, housing finance, culture, architectural history, government policies, and innovations in transportation can be useful in the analysis of spatial patterns of urban landscapes. Although much of the literature in urban geography focuses on the cities of North America, comparative urbanization is an increasingly important topic. The study of cities worldwide illustrates how differing economic systems and cultural values can lead to variations in the spatial structures of urban landscapes.

Students also examine current trends in urban development, such as the emergence of edge cities, new urbanism, transit-oriented development, smart growth, and the gentrification of neighborhoods. In addition, students evaluate sustainable urban- planning design initiatives and community actions, such as bikeways and walkable mixed-use commercial and residential developments, that reduce energy use and protect the environments of cities in the future.

[Course Description, Human Geography 2015,
The College Board Advanced Placement Program]

ENDURING UNDERSTANDING

A. The form, function, and size of urban settlements are constantly changing.

B. Models help to understand the distribution and size of cities.

C. Models of internal city structure and urban development provide a framework for urban analysis.

D. Built landscapes and social space reflect the attitudes and values of a population.

E. Urban areas face economic, social, political, cultural, and environmental challenges.

LEARNING OBJECTIVES

- Explain the factors that initiate and drive urbanization and suburbanization.
- Apply models to explain the hierarchy and interaction patterns of urban settlements.
- Explain the models of internal city structure and urban development.
- Analyze residential land use in terms of low-, medium-, and high-density housing.

- Evaluate the infrastructure of cities.
- Explain the planning and design issues and political organization of urban areas.
- Analyze the demographic composition and population characteristics of cities using quantitative and qualitative data.
- Evaluate problems and solutions associated with growth and decline within urban areas.
- Evaluate problems associated with urban sustainability.

ESSENTIAL KNOWLEDGE

- Site and situation influence the origin, function, and growth of cities.
- Transportation and communication have facilitated urbanization (e.g., Borchert's epochs of urban growth) and suburbanization.
- Improvements in agriculture and transportation, population growth, migration, economic development, and government policies influence urbanization.
- World cities function at the top of the world's urban hierarchy and drive globalization.
- Megacities are rapidly increasing in countries of the periphery and semiperiphery.
- Megacities and world cities experience economic, social, political, and environmental challenges.
- Models that are useful for explaining the distribution and size of cities include the rank-size rule, the law of the primate city, and Christaller's central place theory.
- The gravity model is useful in explaining interactions among networks of cities.
- Classic models that are useful for explaining the internal structures of cities and urban development are the Burgess concentric-zone model, the Hoyt sector model, and the Harris– Ullman multiple-nuclei model.
- The galactic city model is useful for explaining internal structures and urban development within metropolitan areas.
- World-regional models (e.g., Latin America, Africa) are useful (with limitations) for explaining land use and urban development.
- Residential buildings and patterns of land use reflect a city's culture, technological capabilities, and cycles of development.
- Economic development and interconnection within a metropolitan area are dependent upon the location and quality of infrastructure (e.g., public transportation, airports, roads, communication systems, water and sewer systems).
- Sustainable design initiatives include walkable mixed-use commercial and residential areas and smart-growth policies (e.g., new urbanism, greenbelts, slow-growth cities).
- Functional and geographic fragmentation of governments presents challenges in addressing urban issues.

- Quantitative information about a city's population is provided by census and survey data.
- Qualitative data from field studies and narratives provide information about individual attitudes toward urban change.
- Economic and social problems associated with the growth and decline of urban communities include housing and insurance discrimination, housing affordability, access to food stores and public services, disamenity zones, zones of abandonment, and gentrification.
- Land use and environmental problems associated with the growth and decline of urban communities include suburban sprawl, sanitation, air and water quality, remediation and redevelopment of brown fields, farmland protection, and energy use.

BASIC VOCABULARY AND CONCEPTS

Agglomeration
Annexation
Barriadas
Bid-rent theory
Blockbusting
CBD
Census tract
Centrality
Centralization
Central-place theory
Christaller, Walter
City (legal, social, physical definitions)
Cityscapes
Colonial city
Commercialization
Commuter zone
Concentric zone model
Counterurbanization
Decentralization
Deindustrialization
Density gradient
Deterioration and decline of cities Early cities
Economic base (basic/nonbasic)
Edge city
Emerging cities
Employment structure
Entrep⇨t
Ethnic neighborhood
Favela
Female-headed household
Festival landscape
Festival market places and tourism
Gated communities
Great cities
Greenbelts
High-tech corridors
Hinterland
Hydraulic civilization
Impacts of auto dominated cites Indigenous city
Industrial City
In-filling
Informal sector
Infrastructure
Inner city
Invasion and succession
Lateral commuting
Latin American Model
Leap-frog development
Medieval cities
Megacities
Megalopolis/ Conurbation
Metropolitan area
Multiple nuclei model
Multiplier effect
Neighborhood
Office park
Peak land value intersection
Peripheral Model
Planned communities
Postindustrial city
Postmodern urban landscape
Primate city
Range
Racial steering
Rank-size rule
Redlining
Restrictive covenants
Role of transportation (Auto
Settlement form (nucleated, dispersed, elongated)
Shopping mall
Site/situation
Slum
Smart growth
Social structure
Specialization
Sprawl
Squatter settlement
Street pattern (grid, dendritic; access, control)
Suburb
Suburbanization
Sunbelt cities
Symbolic landscape
Tenement
Threshold
Town
Underclass and homelessness
Underemployment
Urban growth rate
Urban function
Urban hearth area
Urban heat island
Urban hierarchy
Urban hydrology
Urban morphology
Urban renewal
Urbanization
Urbanized population
World city (Links

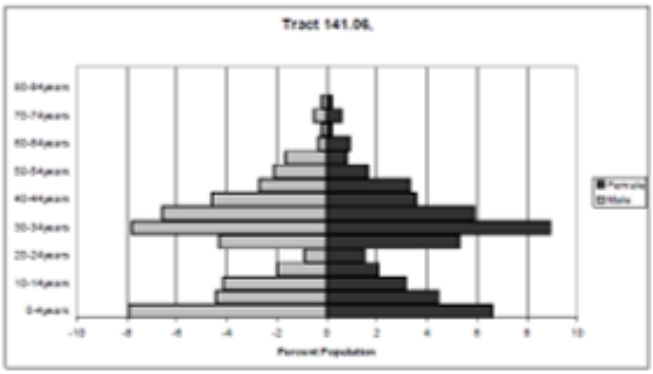
Gateway city
Gender
Gentrification
Ghetto
Globalization
dominated city) (Transit Oriented Development)
Sector model
Segregation
between, Distribution, Changes in Pop.)
Zone in transition
Zoning

STUDY QUESTIONS

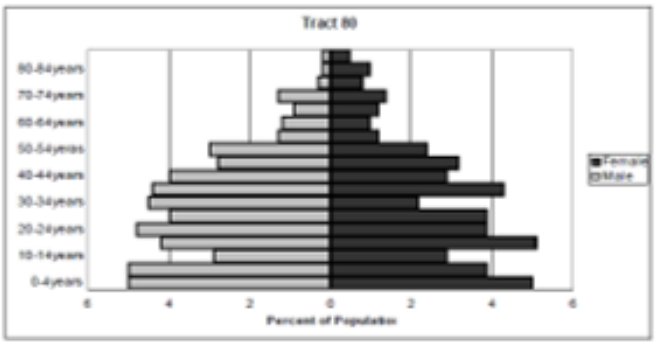
1. Explain various urban environments.
   A) What are preindustrial cities?
   B) Primate cities?
   C) Mercantile cities?
   D) Manufacturing cities?
   E) Modern cities?
   F) Postmodern cities?
2. The city has evolved over time. For the time periods listed below, discuss the following aspects of urbanization: initial reasons for settlement formation, urban design principles, and cultural significance.
   A) Ancient World (Greece and Rome).
   B) Medieval (Europe and/or Japan).
   C) Industrial Revolution (Europe).
   D) Post World War II (North America).
3. Describe the difference between site and situation as each relates to urban location.
4. What is the role of the world city?
5. Explain the relationship between social stratification and urban elites.
6. Why are urban places ranked?
7. What are hinterlands?
8. Discuss problems found in urban America and some of the possible revitalization solutions.
9. North American metropolitan areas face many challenges. Discuss in detail one social, economic, and physical challenge for each of the following areas:
   A) Central Business Districts (CBDs).
   B) inner city neighborhoods.
   C) inner ring suburbs (1950s).
   D) boomburgs (commuter zone).
10. Diagram the three models of urban structure developed by Burgess, Hoyt and Harris/Ullman. Explain the differences between the three models.
11. Numerous urban models have been developed during the 20th century to help explain the distribution of commercial activities and social characteristics for North American cities. For the Concentric Zone, Sector, and Multiple Nuclei Models discuss the following:
    A) What assumptions are in all three models?
    B) What was the basis of each model?
    C) Describe the strengths and weakness of each model.
    D) Analyze the effectiveness of the models for cities outside of North America.
12. How do urban areas differ in various parts of the world such as the Canadian city, the European city, the Ibero-American city, the Southeast Asian city, and the African city?
13. Diagram and explain the Ibero-American City (Latin American City) Model. Compare and contrast this model with Burgess' Concentric Zone Model.
14. Give several reasons explaining why megalopolises exist in the modern world.
15. Distinguish between a megacity and a megalopolis.
16. Analyze the significance of Christaller's central place theory.

17. The spatial arrangement of commercial and social activities varies from city to city and from region to region throughout the world. Discuss in detail with specific examples two spatial differences between:
    A) North American and European cities.
    B) North American and LDC cities.
    C) Northeastern U.S. and Southwestern U.S. cities.
    D) North American and Latin American cities.
18. What made urban planning attractive to many city officials and civic groups in the US in the early twentieth century?
19. Analyze the positive and negative impacts of urban gentrification.
20. Rapid urbanization in Least Developed Counties (LDCs) has many profound impacts for the world. Answer the following questions in detail and give specific examples.
    A) Discuss the changing percentage of the top ten world's largest cities located in More Developed Countries (MDCs) vs. Least Developed Countries (LDCs), since 1900.
    B) How will this trend play out for the next twenty years? What cities and areas of the world will continue to rapidly urbanize?
    C) Discuss two factors that are contributing to the rapid geographical shifts in urbanization on a global scale.
    D) Discuss three geographic challenges for mega cities in both MDCs and LDCs.
22.

A



B



Source: www.census.gov

24. Census tracts A and B are located in a major metropolitan area in the western United States. Give two reasons for why census tracts A and B would be located in specific geographic locations for any three of the following urban models:
    A) Concentric Zone Model.
    B) Sector Model.
    C) Multiple Nuclei Model.
    D) Peripheral Model.

25. 21. Since the 1980s, new development strategies have emerged to counter the negative social, physical, and economic problems associated with sprawl. Discuss in detail three positive and one negative aspect to the following development strategies:
    A) New Urbanism.
    B) Transit Orientated Development.
    C) Smart Growth.
26. The evolution of the American city has been largely influenced by improvements in transportation technology. Discuss how each of the following affected the growth and geography of a large American city:
    A) street-cars and subways (1900-1930).
    B) highways (1950s-present).
    C) new light rail and subway systems (1970s-present).
27. Christaller's Central Place Theory has theoretical and practical applications for the distribution of goods and services in a region/country.
    A) What are three advantages to the rank-size rule?
    B) What is the relationship between Central Place Theory and the Daily Urban System in the United States?
    C) What are two disadvantages for a region and/or country having a primate city? Discuss some specific strategies that a region and/or country have used to slow down the growth of their primate city.

Notes

I. Definition

A. Urban _____

B. Rural _____

C. Urbanization _____

D. Urban system _____

E. Urban form _____

F. Urban ecology_____

G. Primate City _____

H. Mercantile City _____

I. Manufacturing City _____

J. Modern City _____

K. Post-Modern City _____

II. Introduction

A. The study of urban geography is concerned with the _____ around the world.

1. look at _____ and _____
2. both among and _____ urban places.

B. Important Questions

1. What attributes make towns and cities distinctive?
2. How did these distinctive identities evolve?
3. What are the relationships and interdependencies between particular sets of town and cities?
4. What are the relationships between cities and their surrounding territories?
5. Do significant regularities exist in the spatial organization of land use within cities, in patterning of neighborhood populations, or in the layout and landscapes of particular kinds of cities?
6. What are the causes for the patterns and regularities that are found?

New York City

Tokyo, Japan

Singapore, Singapore

Hong Kong

III. Urban Origins—Cities have been an enduring part of human settlement patterns since ancient times. Many of the world's cities are the product of a long period of _____

A. Focal points of _____ in the Indus Valley, China, Southwest Asia, Meso-America, Greece, and Rome.

B. Cities developed at _____ times in _____ cultural hearths.

C. Some tie the origins of cities to different reasons

4,000-year-old ziggurat (temple tower) at Ur

1. Some tie it to the first _____ revolution, the surplus of food and the emergence of specialized, nonagricultural workers

2. Some tie it to the results of pressure of _____ and forcing people to the marginal areas forcing people to devise new forms of economy based on _____ such as trade, religion or defense

D. Most agree that changes in social organization were an important _____

1. urbanization required the emergence of groups who were able to exact _____ , impose _____ , and control _____ _____ power (through religious persuasion or military coercion)

2. the _____ then built palaces, arenas, and monuments to show off its _____

3. required an increase in specialization in _____ activities—construction, crafts, administration, the priesthood, soldiery, and so on

E. Greeks and Roman spread the idea of the city

1. Durability of certain towns depended on

   a. proximity to _____

   b. availability of _____

   c. _____ of the site

   d. position of towns on ancient _____

2. Growth of towns required an "_____" (decision makers and organizers who controlled the resources and sometimes the lives of others.

F. _____ concepts of urbanization diffused into Western Europe, but Europe's preindustrial cities were poorly organized, unsanitary, overcrowded and uncomfortable places to live for the majority of the people.

G. In Europe, _____ gave rise to a fragmented landscape of rurally oriented forms of economic and social organization—the urban system almost collapsed

1. Each feudal estate was more or less _____ and was mostly _____
2. Most regions did support small towns mainly for a _____
   a. Ecclesiastical or _____ center
   b. _____ strongholds
   c. _____ centers for the upper tiers of feudal hierarchy

H. _____ and _____ emerged and provided the foundations for a new phase of urbanization based on merchant capitalism

I. The _____ Revolution encouraged the development of cities

1. needed large pools of _____
2. needed _____ networks for _____
3. needed the physical _____ of factories, warehouses, stores and offices
4. and needed the _____ market

J. The idea of the Western European idea of a city spread with _____ and _____. Urban areas were established in the colonies as trading points to collect and send raw materials back to Europe and to sell European products in the colony.

Sao Paulo, Brazil

K. It wasn't until the late 18 Century that _____ became an important dimension of the world system

1. In 1800, less than _____% of the world's 980 million people lived in cities and towns
2. By 1950, _____% of the world's population was urban
3. Cities attracted people with high _____ and greater variety of _____

4. Today, _____ out of _____ people in world live in an urban setting [depends on how you define "urban"—if you define it as an area with a minimum of 100,000 people it is 1 out of 3]

   a. North America is _____%urban

   b. Africa is _____% urban

Johannesburg, South Africa

L. Regional Trends and Projections

1. There is a relationship between urban _____ and _____.

2. World urbanization is _____

   _____

3. In 1950, the world's largest cities were in _____ countries (21 of 30) (11 in Europe and 6 in North America)

4. In 1980, the world's largest cities were in the _____ and _____ regions (19 of 30)

5. By 2010, all but _____ cities are expected to be in the peripheral or semiperipheral regions

6. _____has the fastest growing cities

7. In core countries, levels of urbanization are _____ and have been for some time (growth is slow)

8. Western Europe, North America, Japan, and Australia are _____ urbanized (84% of all Texans live in cities).

9. The cities in the world which are growing most rapidly are located in the _____ world as a condition of economic development. The world's least urbanized realm is _____; large numbers of

Chicago

Shanghai

Houston

Dallas

Dubai, United Arab Emirates

people are moving from rural to urban areas.

10. Cities in the developed world are growing at much _____ rates.

11. When the _____ of a city is strong, it grows; when it is weak, the city stagnates.

12. The character of cities reflect what people do for a living, that is, the city's _____ functions. Orlando is different than Pittsburgh. The difference lies in the functions each city fulfills.


Kuala Lumpur, Malaysia


San Francisco


Pittsburgh

Worksheet on Top 30 World Cities

IV. Urban Systems

A. every town and city is part of one of the interlocking _____ that link regions, nations, and international areas in complex webs of interdependence

B. space is organized through _____ of cities of different sizes and functions

C. many of these hierarchical urban systems exhibit certain _____ attributes and features
   1. in terms of relative size
   2. in terms of relative spacing

D. Central Places

   1. Towns and cities act as _____

   2. Central place is a settlement in which certain types of products and services are available to _____

   3. First explored by Walter Christaller [German in 1930's]

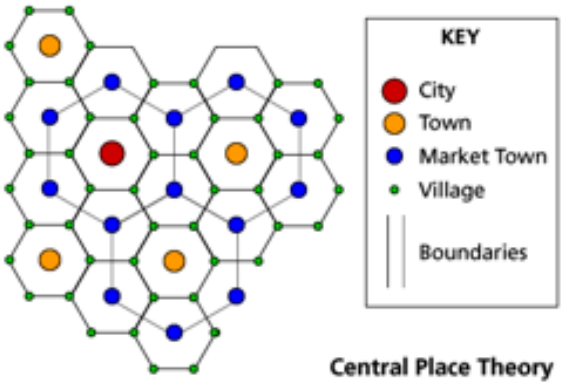
   4. Central place theory: a theory that seeks to explain the _____ and _____ of towns and cities as a function of people's shopping behavior.

      a. Smaller places (each offering a limited assortment of stores, services, and amenities) tended to locate at relatively _____ and consistent distances from each other.

b. Larger towns and cities were _____ and

(often a much greater variety of stores, services and amenities)

c. In between were intermediate-sized places serving intermediate-sized markets with middling collections of stores, services and amenities



Central Place Theory

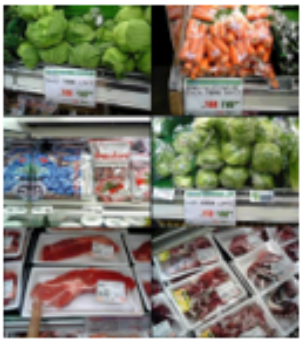
5. Theory based on certain principles

a. _____—the maximum distance that consumers will normally travel to obtain a particular product or service

1) "Higher-order" goods and services are those that are relatively _____ and generally required infrequently (specialized equipment, professional, sports, and specialized medical care, for example)—have the greatest

_____.

2) "Low-order" goods and services are those that are relatively _____ and required at frequent intervals (bakery and dairy products and groceries, for example)—have a short _____.



b. _____—the minimum market size required to make the sale of a particular produce or service profitable

1) _____-order services, such as hospitals, have thresholds in the tens of thousands of people.

2) _____ -order serves, such as small grocery stores, can have thresholds of between 200 and 300 people

6. Christaller was able to demonstrate that under ideal circumstances (on flat plains, with good transportation in every direction) towns and cities tend to be arranged in clear _____ with hexagonal shaped market areas of different sizes arranged in clear hierarchies. [Patterns are disturbed by _____ _____.]

Worksheet on Texas hierarchy.

7. Urban systems also exhibit clear _____ differences—***review map on page _____ in textbook.***

8. Top tier of cities have global importance in the US (_____ _____) that provide high-order functions to an international market place.

9. Second tier general-purpose cities in the US with diverse functions but only regional importance (_____, etc.)

10. The third and fourth tiers in the US consist of more specialized centers of sub-regional and local importance.

E. City-Size Distributions, Primacy and Centrality

1. _____

   a. there are distinctive relationships between the _____ of cities and their _____ within the overall hierarchy

b. the relationship is known as rank-size rule
c. Definition—a statistical regularity in city-size distributions of cities and regions.
d. The ***n***th largest city in a country or region is 1/***n*** the size of the largest city in that country or region.
   1) if the largest city is a million—the fifth largest city should have a population 1/5 as big or 200,000 people
   2) the hundredth ranked city should have a population of 10,000
   3) The US's urban system has come close to this theory.

Rank	City	State	Population in 2003
1	New York	New York	8,085,742
2	Los Angeles	California	3,819,951
3	Chicago	Illinois	2,869,121
4	Houston	Texas	2,009,690
5	Philadelphia	Pennsylvania	1,479,339
6	Phoenix	Arizona	1,388,416
7	San Diego	California	1,266,753
8	San Antonio	Texas	1,214,725
9	Dallas	Texas	1,208,318
10	Detroit	Michigan	911,402

10 Largest United States Cities in 2003

2. Sometimes the largest city is disproportionate in size of the next city—This is called _____.
   a. Argentina—Buenos Aries is more than 10 times larger than Rosario
   b. UK—London is more than 9 times the size of Birmingham.
   c. France—Paris is more than 8 times Marseilles
   d. Brazil—Rio de Janeiro and Sao Paulo are 5 times the size of Belo Horizonte
   e. These cities are called "_____"


Rio de Janeiro

   f. Found in the core and the periphery—suggest that primacy is not because of world-economy, but because of _____ _____ urban system
      1) In the periphery—they were historically _____ cities (serve as links between one country or region and others because of its physical situation —_____ connections)
      2) In the core—they are usually _____ and center of _____

3. Centrality is when cities' economic, political and cultural functions are disproportionate to their _____
   a. usually primate cities exhibit this but do not necessarily have to be primate


Mexico City

   b. Bangkok, Lima, Mexico City, Lagos, Nairobi, Rangoon, Manila, Shanghai, etc. are examples

F. _____Cities (aka global cities)
1. World cities for the 17th century were London, Amsterdam, Antwerp, Genoa, Lisbon, and Venice
2. World cities for the 18th century also included Paris, Rome and Vienna, while Antwerp and Genoa became less influential
3. World cities for the 19th century added Berlin, Chicago, Manchester, New York and St. Petersburg; Venice became less influential
4. Historical role of world cities included the organization of _____ and the execution of colonial, imperial and geographical strategies
5. Today,
   a. The key roles are concerned less with development of imperial power and control of trade and more with _____ corporate organization, banking and finance,

_____ government and the work of

_____ agencies.

b. _____ for the flows of information, cultural products, and finance that collectively sustain the economic and cultural globalization of the world.

6. World cities also provide interface between _____ and _____ levels of economy etc.
7. World cities have several functional characteristics: They are sites of

a. The leading global markets for _____, commodity futures, investment capital, foreign exchange, equities and bonds.

b. Clusters of specialized, high-order _____ services, especially those that are international in scope and that are attached to finance, accounting, advertising, property development and law.

c. Concentrations of _____ —not just of transnational corporations but also of major national firms and large foreign firms.

d. Concentrations of national and international headquarters of _____ associations.

e. Most of the leading _____ organizations (NGOs) and international organizations (IGO's) that are international in scope (for example, the World Health Organization (WHO), United National Education, Scientific and Cultural Organization (UNESCO), the International Labor Organization (ILO) and the International Federation of Agricultural Producers (IFAP).

f. The most powerful and internationally influential _____ organizations (including newspapers, magazines, book publishing, satellite television); _____ services (including newswires and on-line information services); and _____ (including art and design, fashion, film and television).

Sydney

8. Today,
   a. Top-tier World Cities
      1) _____ 2) _____
   b. Second-tier World Cities
      Brussels, _____, Frankfurt, _____
      Paris, Sao Paulo, Singapore, _____,
      Zurich

Vancouver

c. Third-tier World Cities
Amsterdam, Bangkok, Berlin, Mumbai, Buenos Aires, Hong Kong, _____, Johannesburg, Madrid, Manila, Mexico City, _____, Milan, Osaka, Rio de Janeiro, _____, Seoul, Sydney, Taipei, Toronto, Vancouver.

d. Fourth-tier World Cities
Includes—Barcelona, _____, Manchester, Munich, Melbourne and

e. Fifth-tier World Cities
Includes—_____, GA; _____, NY; _____, OH; _____, NC; etc. in the US (trying to carve out roles in the global marketplace.)

G. Megacities
1. are not necessarily world cities, though some are (_____ and _____ for example)
2. very large cities characterized by both primacy and high centrality within its national economy.
3. Most are over 10 million people.
4. They provide important intermediate roles between the upper tier of the system of world cities and the provincial towns and villages of large regions of the world.
5. Also provide a point of contact between the traditional and modern and between the formal and informal economic sectors [informal sectors involve economic activities that take place beyond official record, not subject to formalized systems of regulations or counting.]

V. Urban Growth Processes

A. Urbanization and Economic Development

1. growth depends on _____
2. _____—set of manufacturing, processing, trading or service activities that serve markets beyond the city
3. income generally "exports" for a city are called _____ functions
4. _____ functions are those that serve a city's own population.
5. cities' growth in core countries depends on the percentage of their economies that is devoted to _____ activities

B. Decentralization and Counterurbanization

1. If industry _____ urbanization _____ (examples Pittsburgh, Cleveland, Sheffield, Liverpool, etc.)
2. Decentralization of jobs as better and more flexible transport and communication networks allow industries to choose from a broader range of potential _____.

3. Some industries moved to smaller cities or to rural areas with _____ and better _____ (tax breaks, etc.)
4. Some have moved _____
5. Also faced with the effects of agglomeration and diseconomies—_____ effects of urban size and density (noise, air pollution, crime, commuting costs, costs of inflated land and housing prices, traffic congestion, crowding, higher taxes, decaying infrastructure, etc.)
6. Deindustrialization, diseconomies, and improved accessibility of smaller towns and rural areas has lead to _____

C. The Unintended Metropolis

1. The urban growth process in the peripheral regions is _____ than in the core.
2. _____ growth has preceded _____ development
3. Poor rural people move to cities in search of _____
4. Since many of these are teenagers and young adults the rate of natural increase has also _____
5. Overurbanization has occurred (cities grow more rapidly than the _____ can sustain)
6. Lead to _____ [shacks on unpaved streets, often with open sewers and no basic utilities
7. Most are _____ [land is neither owned nor rented by occupants]
8. Called many things—Chile—*callampas* (mushroom cities), Turkey—*gecekinda* (built after dusk and before dawn), India—*bustees*, Tunisia—*gourbevilles*, Brazil—*favelas*, Argentina—*villas miserias*
9. Typically account for over _____ and sometimes up to _____ of the population of major cities in the peripheral regions of the world.

D. Frontier Urbanization

1. in some parts of the periphery urbanization is the consequences of the _____ _____ of regions
2. Example—Amazon rain forest
3. Fueled primarily by poor migrants

VI. Cities have evolved in stages which are linked to dominant modes of transportation, technology, and economic systems.

In the United States, the system (connected network) of cities evolved through five stages of development extending over 200 years. Each stage was marked and determined by prevailing modes of transportation and industry. Chapter 10 explains these stages.

VII. Site and situation strongly influence the growth and prosperity of an urban area.

A city's relative location affects its linkages and economic domination over a large and productive hinterland and ensure its well being. A city's site plays a role in its origin and early survival.

VIII. Cities serve important functions in different societies.

Cities are places of incredible creativity, cultural creation, excitement, and innovation.

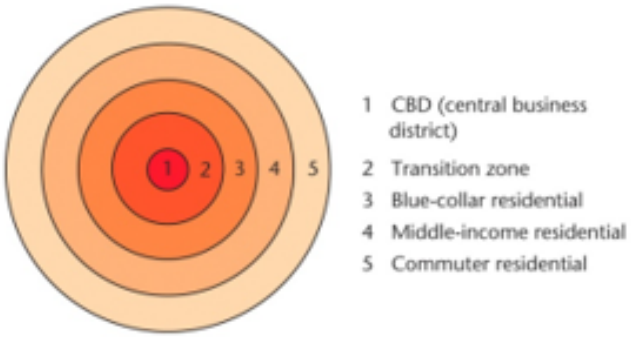
IX. Cities show regularity in the arrangement of places within the city.

Cities are spatially organized to perform their functions. Three models of urban structure are illustrated and described in Chapter 11. Models of urban structure reveal how the forces that shape the internal layout of cities have changed, transforming the single center city of old into the now common multiple nuclei or poly-centric metropolis.

X. **Urban Morphology**—Where are People Distributed Within Urban Areas

A. Three models of urban structure (Canada and the United States).

1. Concentric Zone Model



a. Ernest Burgess, 1920s, Sociologist at the University of Chicago
b. Invasion and succession drove formation of concentric rings
c. An ecological model, with _____ groups as the species
d. His model included "Little Sicily," Chinatown, Deutschland, "underworld roomers," "single-family dwellings," and "bungalow section"
e. Pertained to early 20th c. Chicago in time of European immigration

Festival marketplace (Quincy Market, Boston)

f. CBD (Central Business District)

1) _____

2) _____

3) _____ activities are concentrated in skyscrappers.

Houston CBD

a) _____

11) retail services with a high threshold,

22) retail services with a high range,

33) retail services serving downtown workers.

b) Next Levels—

11) _____ —financial businesses, lawyers, corporate offices, etc.

22) _____ offices

c) Higher Levels--

11) _____

22) _____

g. Transition Zone

1) _____

2) _____

a) newest immigrants to the city

b) apartments

h. Blue-Collar residential

1) _____

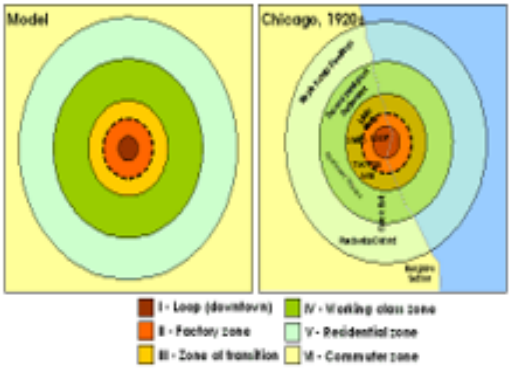
2) older homes

i. Middle-income residential

1) _____

2) _____

3) _____



j. Commuter residential

1) beyond the built up city

2) smaller communities have formed

3) _____

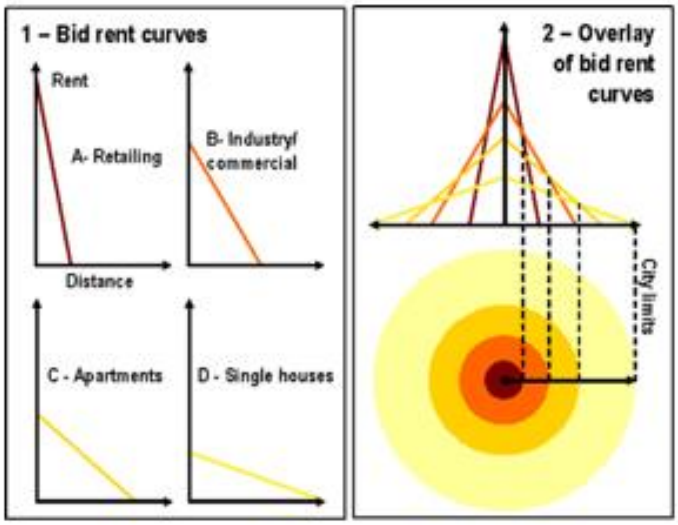
k. Burgess' model is _____ now, partly because of changes in theoretical approach and partly because of changes in the city

1) Still, zones appear because accessibility drives land rent and land in the CBD remains more valuable than in the periphery

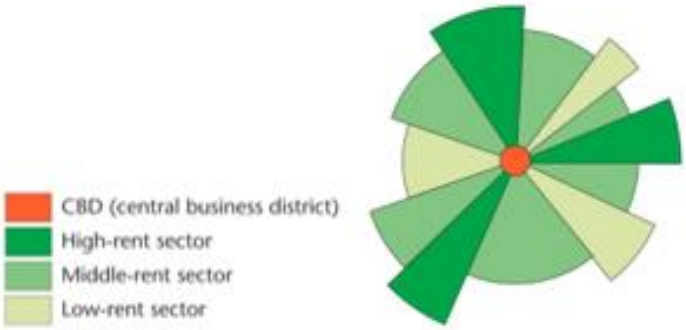
2) As we will see there are now multiple nuclei

3) Different land uses benefit different amounts from accessibility

4) Different distance-decay slopes
   a) retail (steepest slope)
   b) factories
   c) warehouses
   d) housing (most shallow slope)



2. Sector Model



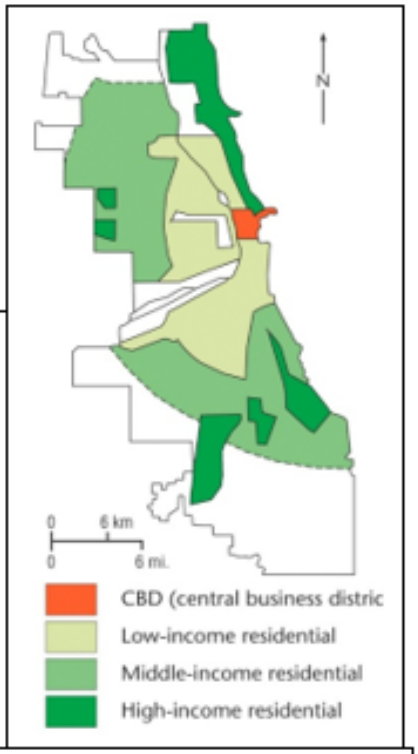
a. Homer Hoyt, 1930s
b. wedges form along _____ corridors
   1) railroads & canals lined by industrial districts
   2) main roads & some waterfronts lined by houses of the wealthy
c. Households of different income and ethnic groups filter towards outer edge in the pre-established direction
   1) Vacancy chain
d. Freeways do not follow this pattern
   1) why not?

e. A study of residential areas done by Hoyt (1939) in the North American context concluded that the land use pattern was
   1) not a _____ distribution,
   2) nor sharply defined rectangular areas
   3) or concentric circles, but rather
   _____.

f. Thus the effect of _____
   was added to the effect of _____

g. Communication axes, such as rail lines and major roads, are mainly responsible for the creation of sectors, thus _____
   _____

h. Cities would thus grow along major axis. The sector representation also includes concentric transitional processes observed by Burgess, which is occurring along axis.



Sectors and zones in a real city (Chicago)

What accounts for the high-income sector north of the CBD?

3. Multi-nucleated metropolis Model (Harris & Ullman)

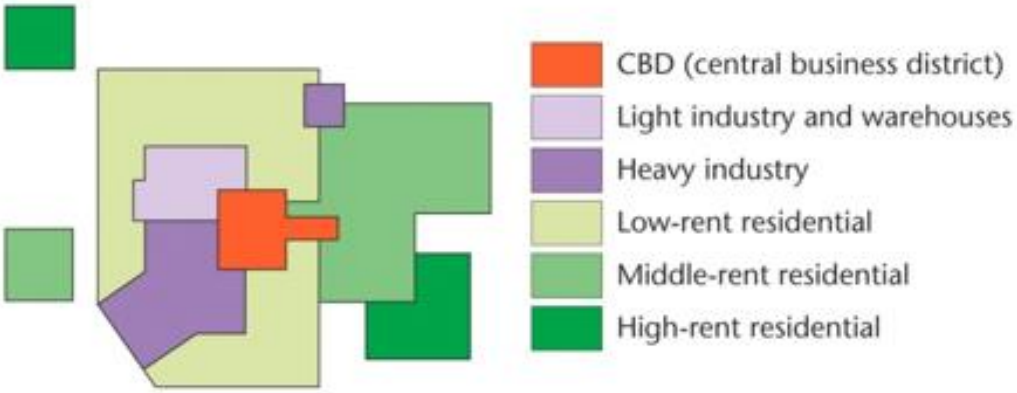
a. Harris and Ullman (1945) introduced a more effective generalization of urban land uses. Many towns and nearly all large cities do not grow around one CBD, but are formed by the progressive integration of a number of _____ in the urban pattern. These nodes become specialized and differentiated in the growth process and are not located in relation to any distance attribute, but are bound by a number of attributes:

b. _____ Some activities require specialized facilities such as port and rail terminals. For instance, the retailing sector demands maximum accessibility, which is often different from centrality offered in the CBD.

c. _____. Similar activities group together since proximity implies improved interactions through the process of economies of agglomeration. Service activities such as banks, insurance companies, shops and institutions are strongly interacting with each other. This can be defined as centripetal forces between activities.

d. _____ Some activities are repelling each-other such as high quality residential and heavy industrial. This may be defined as centrifugal forces.

e. _____. Some activities cannot afford the rent of the optimal site for their location. They are thus locating at cheaper places, which are not optimal, but suitable for these activities.



Why are some industrial regions located in the transition zone and others are at the outskirts of the city? (hint: think of economic utility in conjunction with urban growth)

What are edge cities and why have they formed?

4. Peripheral Model: modification of the multiple nuclei model
   a. An urban area that consists of

      1) An inner city

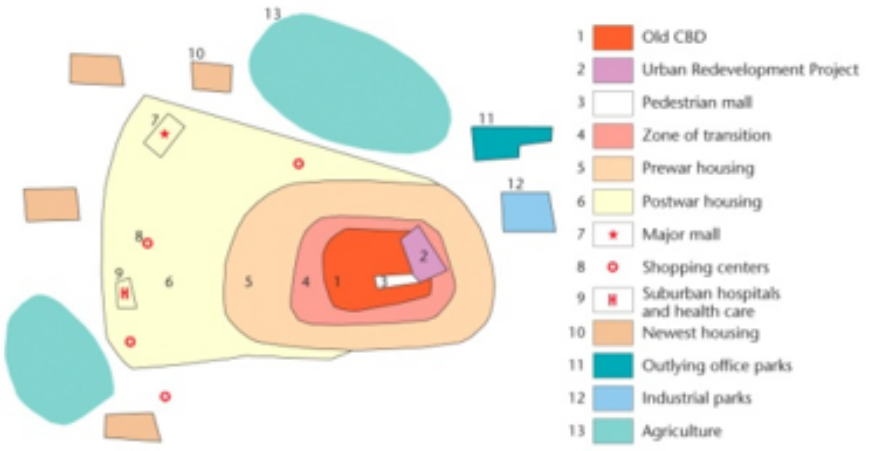
      2) surrounded by large suburban residential and service nodes

      3) tied together by a beltway or ring road

b. less dense as you move outward [vs. apartment or row houses]

c. Suburban Sprawl _____

_____



Decentralized city

What might be happening near to the pedestrian mall?

Why is the newest housing separated from the rest of the city?

What are 3 factors that determine where the richest families will live?

5. Factors affecting where the richest families will live

   a. _____ cost of land

   b. _____ infrastructure

   c. _____ to desired facilities and geographical locations

   (what are these?)

   d. negative perception of certain social groups (racism and classism)
   e. status-seeking behavior
   f. willingness and ability to commute
   e. Factors affecting where the _____ families will live

      1) _____ of affordable housing
      2) inability to avoid inadequate or decaying infrastructure
      3) inability to maximize _____ to desired facilities
      4) spatial avoidance by those in more favored groups
      5) ability/inability to commute (creates <u>two</u> zones of low-income housing

B. Inner-City Problems


Low Rent Residential in DC

1. _____

a. Process of Deterioration

1) Filtering
---Subdivision of _____ houses into smaller dwellings for low-income families.

--Property tends to _____due to absentee landowners. Property is often _____ after it no longer generates an income for the owner.

2) Redlining
A discriminatory practice by which banks, insurance companies, etc., _____, mortgages, insurance, etc., within specific geographic areas, esp. inner-city neighborhoods.

b. Urban Renewal

2) Public Housing
Many substandard housing has been demolished in inner cities and _____ _____ reserved for lower income families. Mostly in the 1950's and 60's. The government has stopped funding these projects _____ in the US. Can get government support to renovate properties and to help pay the rent.

3) Renovated Housing
Non-profit organizations often renovate houses and sell or rent them to _____ _____. Renovated housing; however, more often than not, attracts middle class people.

1) Gentrification
Middle class people move in and _____ the housing in inner city neighborhoods.

11) larger homes
22) older homes with character
33) near downtown
44) appeals to the young couples (without children) and people who are single

As neighborhoods improve the _____ can no longer afford those neighborhoods and are _____.


Gentrification in Bristol, England

2. _____
   a. Underclass
      1) Lack of Job Skills
      2) Homeless
   b. Culture of poverty
      1) Crime
      2) Ethnic and Racial Segregation

3. _____
   Fiscal Problems
   a. Concentration of low-income people in the inner city has caused problems..... need public services but cannot pay the taxes needed
   b. Cities have to either cut the services or raise the taxes this will chase out the middle class and the industries to the suburbs.
   c. Cities are trying to attract more development into the downtown areas.
   d. _____
      1) Another solution is to annex surrounding areas.
      2) Until the beginning of the 20th century this was common.
      3) Today, people in the peripheral areas do not want to be annexed
      4) Have their own services
      5) Don't want to pay high taxes for inner-city problems.

C. Use of the models outside of North America (The 3 models associated with cities in North America do not describe urban areas in other parts of the world.)


London Townhouses

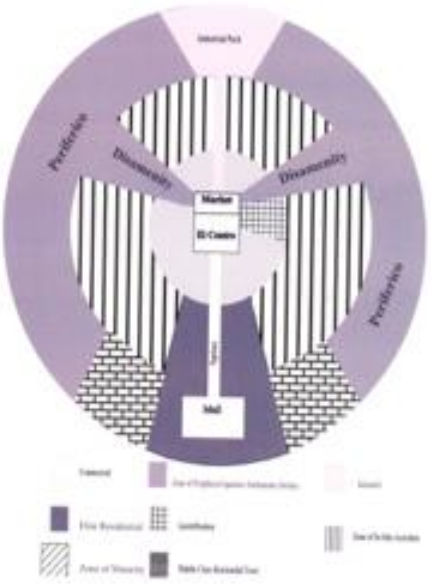
1. _____
   a. Similar to US cities
      1) wealthy live in sectors and extend into the suburbs
      2) Usually at higher elevations
      3) Usually near attractive locations
   b. Different to US cities
      1) Wealthy Europeans still live in the inner rings near the CBD
      2) Do not have large private yards
      3) Have summer and weekend homes in the country
      4) Poorer people lived in basements and attics prior to the Industrial Revolution—then moved into sectors near the factories—today relegated to the outskirts of the cities.
         aa) Face long commutes on public transport
         bb) Suburbs are centers of crime, violence, and drug dealing
         cc) Recent immigrants from Africa and Asia facing discrimination and prejudices
      5) Trying to avoid urban sprawl found in the US

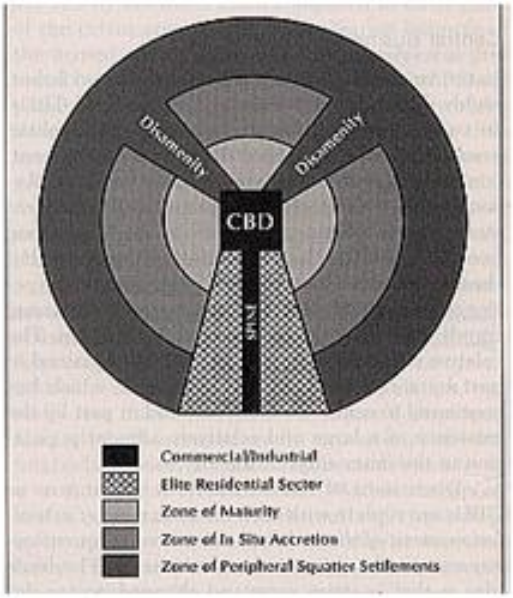
2. _____ Cities
   a. Pre-colonial cities
      1) Small
      2) Usually around a religious core (such as a mosque) and a market place (commercial core)
      3) Government buildings and wealthy homes surrounded the core.
      4) Then less wealthy
      5) Recent immigrants were on the outskirts
   b. Colonial cities—colonial legacy
      1) Colonial powers often built a new town near the old town or
      2) Destroyed the original town completely
      3) Colonial sectors were less dense, had wider streets, surrounded by gardens
      4) Old towns had narrow, winding streets, little open space and cramped residences
      5) Followed standardized plans
         a) grid streets centered on a church and central plaza
         b) walls around individual houses
         c) neighborhoods were centered around smaller plazas

3. _____

La Paz

The Zocalo, a Vast Public Plaza, Mexico City





CBD/Commercial/El Centra _____

Market _____

Industrial _____

Elite residential sector _____

Zone of Maturity _____

Zone of in stu accretion _____

Zone of peripheral squatter settlements _____

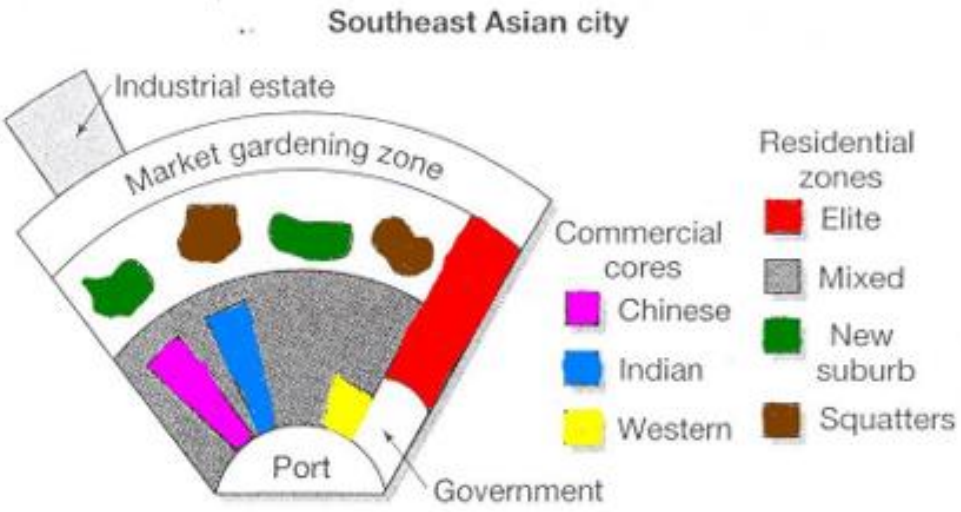
Gentrification _____

Middle-class residential _____

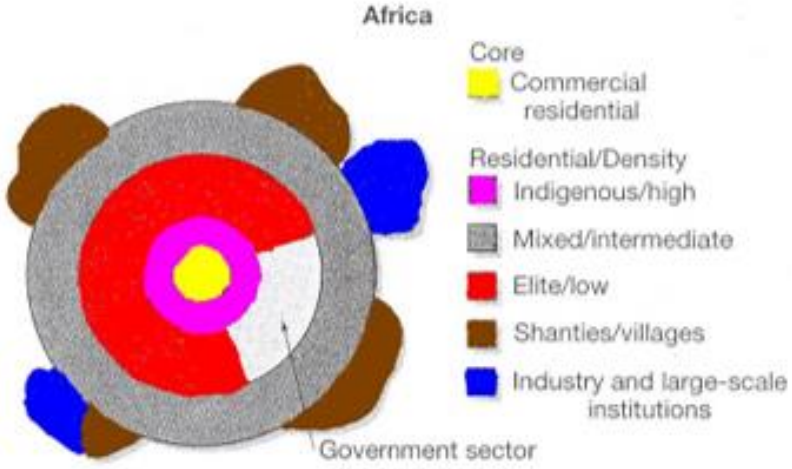
Spine _____

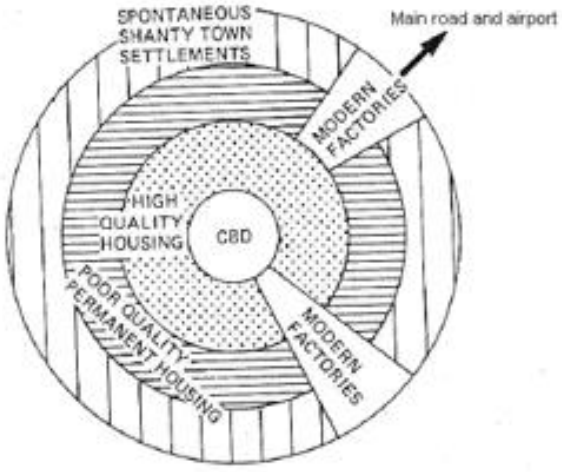
Mall _____

4. _____



5. _____





Zomba, Malawi: a simplified urban structure

D. Transportation's Influence on the Development of Urban Areas

1. Changes based on Motor Vehicles and the Reliance on Motor Vehicles

   a. Cities that developed before the widespread use of the automobile are

      1) _____ more compact

      2) _____more residential – had to walk to work

   b. Transportation Epochs (John Borchert)

      1) Sails-Wagon Epoch (1790-1830) _____

      _____

      2) Iron Horse Epoch (1830-1870) _____

      _____

      3) Steel Rail Epoch (1870-1920) _____

      _____

      4) Auto-Air-Amenity Epoch (1920-1970) _____

      _____

      5) Satellite-Electronic-Jet Propulsion (1970--?) _____

      _____

   c. Benefits and Costs of Motor Vehicles

      1) Comfort, choice and flexibility

      2) Perceived cost

      3) Consumption of land

      4) Congestion

2. Public Transportation

   a. US-- only _____% of the people use public transportation—mainly for

   _____

      1) Based on the invention of the railroads --- streetcars / trolleys (now referred to as "light rail" / trams / subways – What are the differences between each of these?

      _____

      _____

a) Near the stations you would find _____

b) Do they still exist? _____

2) What changed in the 20th Century? _____

_____

_____

3) Personal automobiles? _____

_____

4) City Buses _____

3) Poor vs. Middle Class vs. Wealthy? _____

_____

b. In other countries—buses / trams / subway

1) kept up – clean maintained – inexpensive for riders – government supported -- expanding

3. Sustainability Challenges? -- average American spends more than _____ hours per year driving

a. Air pollution

b. Energy Usage

1) Fossil Fuels

2) Diesel

3) Hybrid

4) Ethanol

5) Full electric

6) Plug-in hybrid

7) Hydrogen fuel cell

b. Controlling vehicles

1) Congestion charges

2) Tolls

3) Permits

4) Bans

c. Alternative future vehicles

Additional Concepts

- **Technopoles - high tech industry locates near sites of higher education to utilize highly skilled workers e.g. Boston and MIT have attracted a lot of technology base industry**

- **Growth Pole--an urban center with certain attributes that, if augmented by a measure of investment support, will stimulate regional economic development in its hinterland such as Silicon Valley, the Research Triangle, universities, and medical centers**

- **Infrastructure--the foundations of a society: urban center, transport networks, communications, energy distribution systems, farms, factories, mines, and such facilities as schools, hospitals, postal services, and police and armed forces**

- **New Urbanism--Outlined by a group of architects, urban planners, and developers from over 20 countries, an urban design that calls for development, urban revitalization, and suburban reforms that create walkable neighborhoods with a diversity of housing and jobs.**

- **Edge Cities--A large node of office and retail activities on the edge of an urban area. A suburb that has developed its own political, economic, and commercial base independent of the central city**

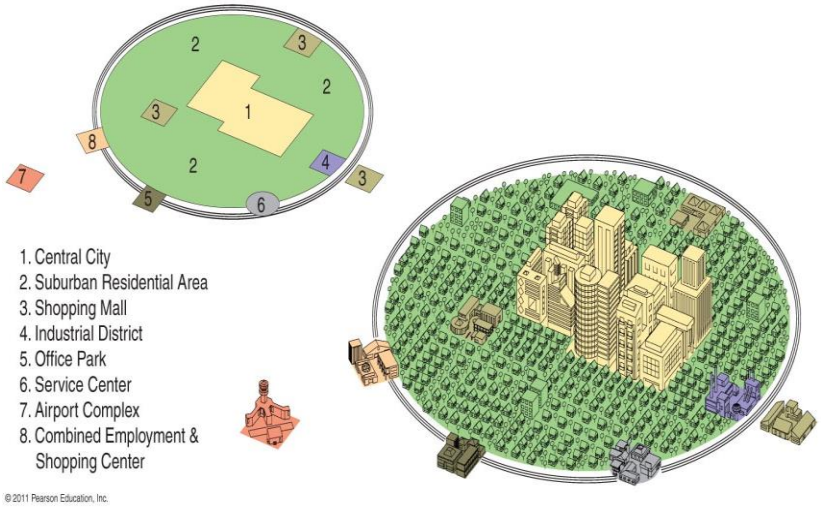
- **Uptowns--Historic activity center built over an older city or town (a type of edge city)**

- **Boomburg--Ingredients: large population, considerable employment, a substantial amount of retail and entertainment activity. A creature of the automobile. Absence of a downtown, have a lot of office space (a type of edge city)**

- **Greenfields--master planned cities, usually on the suburban fringe--built on previously un-built land (a type of edge city)**

- **Peripheral Model aka Galactic Model**

- **North American urban areas follow what Chauncey Harris (creator of the multiple nuclei model) calls the peripheral model. According to the peripheral model, an urban area consists of an inner city surrounded by large suburban residential and business areas tied together by a beltway or ring road.**
  -From 1960s to the 1990s



More recent idea and car dependent

So the area surrounding the city would be built at auto scale
-and have parking lots around stores, office areas, etc.
-areas would spread out and single use zones would separate each other.

Goes with the development of sprawl

So all of the traits of sprawl go with the outside of cities with this model (some examples of sprawl below - we do have a full article on it)
-single-use zones
-low density development of buildings (single story buildings more prevalent on the fringe)
-edge cities would exist on the outside which are a more built up suburb
-highways are used for travel and make the development of the periphery possible

Decentralization of the CBD

-Shopping and businesses start to go out to the suburbs (edge cities)
-Also indicates a movement of jobs to the periphery
-City loses some of its middle class and has a prevalence of lower class giving it issues
-Population grows on the outside of the city / Suburbs now a larger percentage of the population that people living in the cities.
-Highway going around the city shows that interaction from one part of the periphery to another part of the periphery has gained in importance over interactions from the outside to the inside of the city.
-Suburbs continue to grow and now have differing areas of activities and differ in lifestyle to a certain degree

Created by Chauncy Harris who made the Multiple Nuclei model with Ullman so it goes with the ideas in that model and simply adds on the idea of a ring highway and the idea that the suburbs surround the city (development of the periphery)

Also uses the idea of Edge cities surrounding the central city

AP Human Geography – Vocabulary Lists

I. Geography – Nature & Perspectives

Sequent occupance: The notion that successive societies leave their cultural imprints on a place, each contributing to the cumulative cultural landscape. This is an important concept in geography because it symbolizes how humans interact with their surroundings.

Cultural landscape: Fashioning of a natural landscape by a cultural group. This is the essence of how humans interact with nature.

Arithmetic density: The total number of people divided by the total land area. This is what most people think of as density; how many people per area of land.

Physiological density: The number of people per unit of area of arable land, which is land suitable for agriculture. This is important because it relates to how much land is being used by how many people.

Hearth: The region from which innovative ideas originate. This relates to the important concept of the spreading of ideas from one area to another (diffusion).

Diffusion: The process of spread of a feature or trend from one place to another over time.

Relocation diffusion: The spread of an idea through physical movement of people from one place to another. Ex: spread of AIDS from New York, California, & Florida.

Expansion diffusion: The spread of a feature from one place to another in a snowballing process. This can happen in 3 ways:

> **-Hierarchical diffusion:** The spread of an idea from persons or nodes of authority or power to other persons or places (Ex: hip-hop/rap music)
>
> **-Contagious diffusion:** The rapid, widespread diffusion of a characteristic throughout the population. (Ex: ideas placed on the internet)
>
> **-Stimulus diffusion:** the spread of an underlying principle, even though a characteristic itself apparently fails to diffuse. (Ex: PC & Apple competition, p40)

Absolute distance: Exact measurement of the physical space between two places.

Relative distance: Approximate measurement of the physical space between two places.

Distribution: The arrangement of something across Earth's surface.

Environmental determinism: A 19th- and early 20th-century approach to the study of geography that argued that the general laws sought by human geographers could be found in the physical sciences. Geography was therefore the study of how the physical environment caused human activities.

Absolute location: Position on Earth's surface using the coordinate system of longitude (that runs from North to South Pole) and latitude (that runs parallel to the equator).

Relative location: Position on Earth's surface relative to other features. (Ex: My house is west of 394).

Site: The physical character of place; what is found at the location and why it is significant (For more on Site & Situation, see p.16).

Situation: The location of a place relative to other places. (For more on Site & Situation, see p.16).

Space Time Compression- The reduction in the time it takes to diffuse something to a distant place, as a result of improved communications and transportation system.

Friction of Distance- is based on the notion that distance usually requires some amount of effort, money, and/or energy to overcome. Because of this "friction," spatial interactions will tend to take place more often over shorter distances; quantity of interaction will decline with distance.

Distance Decay- The diminishing in importance and eventual disappearance of a phenomenon with increasing distance from its origin. Typically, the farther away one group is from another, the less likely the two groups are to interact. (Electronic devices such as the internet and e-mail have aided in eliminating barriers to interaction between people who are far from each other.

Networks- defined by Manuel Castells as a set of interconnected nodes without a center.

Connectivity- The relationships among people and objects across the barrier of space. Geographers are concerned with the various means by which connections occur.

Accessibility- The degree of ease with which it is possible to reach certain location from other locations. Accessibility varies from place to place and can be measured.

Space- Refers to the physical gap or interval between two objects.

Spatial Distribution- Physical location of geographic phenomena across **SPACE**

Size- Is the estimation or determination of extent.

Scale- Representation of a real-world phenomenon at a certain level of reduction or generalization. In cartography, the ratio of map distance to ground distance, indicated on a map as a bar graph, representative fraction, and/or verbal statement.

Formal Region- (uniform) or homogenous region is an area within which everyone shares in common one or more distinctive characteristics. The shared feature could be a cultural value such as a common language, or an environmental climate.

Functional Region- (nodal region) Area organized around a node or focal point. The characteristic chosen to define a functional region dominates at a central focus or node and diminishes in importance outward. This region is tied to the central point by transportation or communication systems or by economic or functional associations.

Vernacular Region- (Perceptual Region) is a place that people believe exists as a part of their cultural identity. Such regions emerge from people's informal sense of place rather than from scientific models developed through geographic thought. (Often identified using a mental map- which is an internal representation of a portion of Earth's surface)

Possibilism- The physical environment may limit some human actions, but people have the ability to adjust to their environment.

Natural Landscape- (xxx)

Pattern- A common property of distribution, which is the geometric arrangement of objects in space. Some features are organized in a geometric pattern, whereas others are distributed irregularly. Geographers observe that many objects form a linear distribution, such as the arrangement of houses along a street or stations along a subway line.

Place Name- Often referred to as a places toponym (the name given to a place on Earth.

II. Population – Migration & Dispersion

Age Distribution: (Population pyramid) is two back-to-back bar graphs, one showing the number of males and one showing females in a particular population in five-year age groups. This is important because you can tell from the age distribution important characteristic of a country, whether high guest worker population, they just had a war or a deadly disease and more.

Carry capacity: This is the population level that can be supported, given the quantity of food, habitat, water and other life infrastructure present. This is important because it tells how many people an area will be able to support.

Cohort: Population of various age categories in an age-sex population pyramids. This is important because this can tell what state this country it is whether in Stage 3 or Stage 5 in the demographic transition model.

Demographic equation: The formula that calculates population change. The formula finds the increase (or decrease) in a population. The formula is found by doing births minus deaths plus (or minus) net migration. This is important because it helps to determine which stage in the demographic transition model a country is in.

Demographic momentum: this is the tendency for growing population to continue growing after a fertility decline because of their young age distribution. This is important because once this happens a country moves to a different stage in the demographic transition model.

Demographic regions: Cape Verde is in Stage 2 (High Growth), Chile is in Stage 3 (Moderate Growth), and Denmark is in Stage 4 (Low Growth). This is important because it shows how different parts of the world are in different stages of the demographic transition.

Demographic Transition model: Has 5 steps. Stage 1 is low growth, Stage 2 is High Growth, Stage 3 is Moderate Growth, and Stage 4 is Low Growth and Stage 5 although not officially a stage is a possible stage that includes zero or negative population group. This is important because this is the way our country and others countries around the world are transformed from a less developed country to a more developed country.

Dependency ratio: The number of people who are too you or too old to work compared to the number of people in their productive years. This is important because this tells how many people each worker supports. For example the larger population of dependents, the greater financial burden on those who are working to support those who cannot.

Diffusion of fertility control: The diffusion of fertility control is spread throughout the world. In the U.S it's below 2.1 in much of Africa it is above 4, if South America is between 2 and 3, in Europe it is below 2.1, in China and Russia it is below 2.1, and in much of the Middle East it is above 4. This is important because its shows how many kids a mother is having thus helping to see where the countries are growing rapidly and where countries are leveling off.

Disease diffusion: There are two types, contagious and hierarchical. Hierarchical is along high density areas that spread from urban to rural areas. Contagious is spread through the density of people. This is important in determining how the disease spread so you can predict how it will spread.

Doubling time: The number of years needed to double a population, assuming a constant rate of natural increase. This is important because it can help project the country's population increase over the years and when its population will double.

Ecumene: The proportion of earth's surface occupied by permanent human settlement. This is important because it tells how much of the land has been built upon and how much land is left for us to build on.

Epidemiological transition model: This is a distinctive cause of death in each stage of the demographic transition. This is important because it can explain how a countries population changes so dramatically and more.

Gendered space:

Infant mortality rate: (IMR) The annual number of deaths of infants under one year of age, compared with total live births. It is expressed as the annual number of deaths among infants among infants per 1000 births rather than a percentage. This is important because it tell how developed a country is, if they have a high IMR they are an LDC and if it is low they are an MDC.

J-curve: This is when the projection population show exponential growth; sometimes shape as a j-curve. This is important because if the population grows exponential our resource use will go up exponential and so will our use as well as a greater demand for food and more.

Maladaption: This is an adaptation that has become less helpful than harmful. This relates to human geography because it has become less and less suitable and more of a problem or hindrance in its own right, as time goes on. Which shows as the world changes so do the things surrounding it.

Malthus, Thomas: Was one of the first to argue that the world's rate of population increase was far outrunning the development of food population. This is important because he brought up the point that we may be outrunning our supplies because of our exponentially growing population.

Mortality: There are two useful ways to measure mortality; infant mortality rate and life expectancy. The IMR reflect a country's health care system and life expectancy measures the average number of years a baby can expect to live. This is important because you can use a countries mortality rate to determine important features about a country.

Natality: (Crude Birth Rate) This is the ratio of live births in an area to the population of that area; it is expressed as number of birth in year to every 1000 people alive in the society. This is important because it tells you the rate a country is having babies as well as how fast you can expect that population to grow.

Neo-malthusian- theory that builds upon Malthus' thoughts on overpopulation. Takes into count two factors that Malthus did not: population growth in LDC's, and outstripping of resources other than food

> *Recognizes that population growth in LDC's is from the transfer of medical talents from MDC's but not the wealth that would provide food and resources.*

Overpopulation- relationship between the number of people on Earth, and the availability of resources

> *Problems result when an area's population exceeds the capacity of the environment to support them at an acceptable standard of living.*

Population densities- the frequency with which something occurs in space is density

> *Arithmetic density: total number of objects in an area. *Used to compare distribution of population in different countries.*
>
> *Physiological density: number of persons per unit of area suitable for agriculture. *Could mean a country has difficulty growing enough food*.
>
> *Agricultural density: the number of farmers per unit of area of farmland. *May mean a country has inefficient agriculture.*

Population distributions- the arrangement of a feature in space is distribution. Geographers identify the three main properties as density, concentration, and pattern

Used to describe how things and people are distributed across the earth.

Population explosion- a sudden increase or burst in the population in either a certain geographical area or worldwide

> *Occurred in the late 18^{th} and early 19^{th} centuries because several countries moved on to stage 2 of the DTM. Can trace factors that lead to these explosions.*

Population projection- predicts the future population of an area or the world.

Helps predict future problems with population such as overpopulation or under population of a certain race or ethnicity.

Population pyramid- population displayed by age and gender on a bar graph

Shape is determined primarily by crude birth rate. Shows age distribution and sex ratio.

Rate of natural increase- the percentage by which a population grows in a year.

CBR-CDR = NIR Excludes migration

Affects the population and a country's or area's ability to support that population.

S-curve- traces the cyclical movement upwards and downwards in a graph. So named for its shape as the letter "s"

Relates to growth and decline in the natural increase.

Sex ratio- the number of males per hundred females in the population

Depends on birth and death rates, immigration. Men have higher death rates but also higher birth rates. Immigration usually means more males because they can make the journey.

Standard of living- refers to the quality and quantity of goods and services available to people and the way they are distributed within a population

Higher standards of living are found in MDC's rather than LDC's. Can help trace development.

Sustainability- providing the best outcomes for human and natural environments both in the present and for the future

Relates to development that meets today's needs without compromising the ability of future generations to meet their own needs.

Underpopulation- it is the opposition to overpopulation and refers to a sharp drop or decrease in a region's population

Unlike overpopulation, it does not refer to resources but to having enough people to support the local economic system. If there are not enough tax payers, then the area cannot continue.

Zero population growth- when the crude birth rate equals the crude death rate and the natural increase rate approaches zero.

Often applied to countries in stage 4 of the demographic transition model.

Activity space- space allotted for a certain industry or activity

Can apply to an area within a city or surrounding a central place.

Chain migration- when one family member migrates to a new country and the rest of the family follows shortly after

Mostly seen from Mexico to the United States when guest workers set up homes and make money for their family to follow them.

Cyclic movement- trends in migration and other processes that have a clear cycle

Distance Decay- When contact between two groups diminishes because of the distance between them.

Forced Migration- People removed from their countries and forced to live in other countries because of war, natural disaster, and government.

Gravity Model- Predicts that the optimal location of a service is directly related to the number of people in the area and inversely related to the distance people must travel to access it.

Internal Migration- Permanent movement within a particular country.

Intervening Opportunity- An environmental or cultural feature of the landscape that helps migration.

Migration Patterns:

Intercontinental- Permanent movement from one country to a different country on the same continent.

Interregional- Permanent movement from one region of the country to another.

Rural-Urban- Permanent movement from suburbs and rural area to the urban city area.

Migratory Movement-

Periodic Movement-

Personal Space-

Place Utility-

Push-Pull Factors- Factors that induce people to leave old residence and move to new locations.

Refugee- People forced to migrate from their home country and cannot return for fear of persecution because of their race, religion, nationality, membership in social group, or political opinion.

Space-Time Prism-

Step Migration-

Transhumance- Seasonal migration of livestock between mountains and lowland pasture areas.

Transmigration-

Voluntary-

III. Cultural Patterns & Processes

Acculturation: Process of adopting only certain customs that will be to their advantage

Assimilation: Process of less dominant cultures losing their culture to a more dominant culture

Cultural Adaptation:

Cultural core/periphery pattern: The core-periphery idea that the core houses main economic power of region and the outlying region or periphery houses lesser economic ties

Cultural Ecology: The geographic study of human environmental relationships

Cultural Identity: Ones belief in belonging to a group or certain cultural aspect

Cultural Landscape: The visible imprint of human activity on the landscape

Cultural Realm:

Culture: The body of customary beliefs, social forms, and material traits that together constitute a group of people's distinct tradition.

Culture Region:

Formal (Uniform): An area in which everyone shares in one or more distinctive characteristics

Core-Center of economic activity

Periphery-Outlying region of economic activity

Functional (Nodal): Region organized at a node or focal point

Vernacular (perceptual-regional self-awareness): A place that people believe exists as part of their cultural identity

Diffusion Types:

Expansion-The spread of one feature from one place to another in a snowballing process

Hierarchical-The spread of an idea from persons or nodes of authority or power to other persons or places

Contagious-The rapid widespread diffusion of a characteristic throughout the population

Stimulus-The spread of an underlying principle when the characteristic fails to diffuse

Relocation-The spread of an idea through physical movement of people from one place to another

Innovation Adoption: Study of how why and at what rate new technology spreads throughout a culture

Maladaptive diffusion: Diffusion of a process with negative side effects or what works well in one region may not in another

Sequence Occupancy: Refers to such cultural succession and its lasting imprint proposed by Derwent Whittlesey

Religion-the faithfulness to codified beliefs and rituals that generally involve a faith in a spiritual nature. This is important to HG because man wars have been fought over it.

Animism: Belief that objects, such as plants and stones, or natural events, like thunderstorms and earthquakes, have a discrete spirit and life. This is important to Human Geography because a lot of cultures around the world believe in Animism.

Buddhism: The third of the world's major universalizing religions. It has 365 million adherents especially in China and Southeast Asia. It is important because a large percent of the earth's population follow Buddhism beliefs.

Cargo Cult Pilgrimage- Cargo Cult's believe western goods have been traded to them by ancestral spirits. It takes place in Melanesia and is important go HG because it's a big religious movement by a large number of people.

Christianity- is a monotheistic religion centered on the life and teachings of Jesus of Nazareth as presented in the New Testament. It's important to HG because it's the most popular religion in the world.

Confucianism- Developed by earlier Chinese man Confucius, it's a complex system of moral, social, political, and religious thought. This is important to HG because it has affected Chinese Civilizations tremendously.

Ethnic Religion- A religion with a rather concentrated distribution whose principles are likely to be based on the physical characteristics of the particular location where its adherents are located. This is important to HG because most religions start off as an Ethnic Religion.

Exclave/Enclave-A enclave is a country or part of a country mostly surrounded by the territory of another country; an exclave is one which is geographically separated from the main part by surrounding alien territory. This is important to HG because a lot of countries are within other countries.

Fundamentalism- Literal interpretation and strict adherence to basic principles of a religion. This is important to HG because there are a lot of Fundamentalists in all religions.

Geomancy- is a method of prediction that interprets markings on the ground, or how handfuls of dirt land when someone tosses them. The Arabic tradition consists of sketching sixteen random lines of dots in sand. This is important to HG because most farmers use a form of Geomancy.

Hajj- The pilgrimage to Mecca for Islam followers. It's the fifth of the five pillars. It is important to HG because just about all Islam followers try the pilgrimage there.

Hinduism- Created in India, approximately one billion followers. Unlike other religions, heaven isn't always the ultimate goal in life. Third largest in world behind Christianity and Islam. Talk about Karma (what goes around comes around.) It is important to HG because such a large number of people follow the religion and it's unlike any other one.

Interfaith boundaries- the boundaries between the world's major faiths, such as Christianity, Muslim, and Buddhism. This isn't the same as Intrafaith boundaries which describes the boundaries within a major religion. This is important to HG because it separates different groups of people for different reasons.

Islam- It means the submission to the will of God. It's a monotheistic religion originating with the teachings of Muhammad, a key religious figure. It is the second largest religion in the world. This is important to HG because it has impacted the world greatly, especially boundaries.

Jainism- religion and philosophy originating in ancient India. Stresses spiritual independence and equality throughout all life. It affects HG because a lot of people believe in it in India.

Judaism- It is the religion of ancient Hebrews, said to be one of the first monotheistic faiths. This is important to HG because many other religions have been based off it.

Landscapes of the dead- The certain areas where people have commonly been buried. This is important to HG because it has always been important where people are buried.

Monotheism/polytheism- Monotheism this is the belief in one god and polytheism is the belief in many gods. This affects HG because many religions spread throughout the world fall under these two categories.

Mormonism: a term used to describe religious, ideological, and cultural aspects of the various denominations of the Latter Day Saint movement. It is important because a lot of people around the world practice Mormonism.

Muslim pilgrimage: If physically and financially able, a Muslim makes a pilgrimage to Makkah. (Mecca) They usually make the trip around Ramadan. This pilgrimage is also referred to as Hajj. It is important because Islam is one of the most popular religions practiced around the world.

Muslim population: It is the religion of 1.3 billion people in the world. It is the predominant religion of the Middle East from North Africa to Central Asia. Half of the world's Muslims live in four countries outside the Middle East: Indonesia, Pakistan, Bangladesh, and India. It is important because Islam is one of the most popular religions practiced around the world.

Proselytic Religion: Referred to as a Universalizing Religion, which is an attempt to be global, to appeal to all people, wherever they may live in the world, not just to those of one culture or location. There are three religions that practice this they are Christianity, Islam, and Buddhism. To proselytize is to try to convert another person to your religion. This important to HG because these are three of the biggest religions in the world they are practiced all over the world.

Reincarnation: The idea of reincarnation is that after this life you will come back in another life either as a plant, animal, or a human life. So basically what you do in this life will affect what your next life is like. This is commonly practiced by the Buddhists and the Hindus. This is important to HG because these two religions are very important in the world.

Religion (groups, places): One group is universalizing religions. These are Christianity, Islam, and Buddhism. All of these have different branches. There's also ethnic religions, such as, Hinduism, Daoism, and Confucianism. These religions are spread out throughout the world. This affects HG because all regions throughout the world have a general religion.

Religious architectural styles: These are the styles of architecture created by the religions. For example, Christians have always made temples, and Buddhists have always made a lot of religious statues. This is important to HG because these styles affected most of the future styles for other civilizations.

Religious Conflict- this is the conflicts between religions. One of these is Israel-Palestine. This consists of Roman Takeovers, Muslim conquests, and the crusades. This affects HG because there has been a lot of bloodshed over Religious Conflict.

Religious Culture Hearth: This is where most religions are born. Most major religions have come from the Middle East near Israel, but a few have come from India too. This is important to HG because where religions are created, civilizations are too.

Religious toponym: This refers to the origin and meaning of the names of religions. This is important to HG because many names mean significant things including beliefs of cultures.

Sacred space- Sacred space is the place where religious figures and congregations meet to perform religious ceremonies. This is important to HG because a lot of history has taken place at sacred spaces.

Secularism- This is the belief that humans should be based on facts and not religious beliefs. This is important to HG because this has caused conflicts in a lot of different places including politics.

Shamanism- This is the range of traditional beliefs and practices that claim the ability to cure, heal, and cause pain to people. This is important to HG because it is thought as good and bad.

Sharia law- it is the legal framework within which public and some private aspects of life are regulated for those living in a legal system based on Muslim principles. This is important to HG because it affects many people around Muslims around the world.

Shintoism- said to be the way of god. It is the native religion of Japan and was once its state religion. It involves the worship of *kami* (a god). Not very significant anymore and lost importance to today. This is important to HG because before WWII it was very popular and affected a lot of people in Japan.

Sikhism- is a religion that began in sixteenth century Northern India . The principal belief in Sikhism is faith in *Vāhigurū*. Emphasizes faith in god. This is important to HG because its another minor religion in India that affects a lot of people.

IV. Political Organization of Space

Annexation: Incorporation of a territory into another geo-political entity.

Antarctica: Southernmost continent in the world. It has no permanent residents and doesn't belong to any country.

Apartheid: Afrikaans for apartness, it was the segregation of blacks in South Africa from 1948 to 1994. It was created to keep the white minority in power and allow them to have almost total control over the black majority.

Balkanization: The political term used when referring to the fragmentation or breakup of a region or country into smaller regions or countries. The term comes from the Balkan wars, where the country of Yugoslavia was broken up in to six countries between 1989 and 1992. It was the effect of the Balkan wars.

Border Landscape: There are two types, exclusionary and inclusionary. Exclusionary is meant to keep people out, such as the border between the U.S. and Mexico. Inclusionary is meant to facilitate trade and movement, such as the U.S.-Canada border.

Boundary disputes: Conflicts over the location, size, and extent of borders between nations. There is conflict over where exactly the border is between the U.S. and Mexico, especially along the Rio Grande because the river has changed course and moved, and it is the traditional border.

Boundary origin: Boundaries often originated from old tribal lands and lands won in war. They were meant to establish claims to land and were often smaller historically.

Boundary process: The process of creating boundaries.

Boundary type: Many boundaries are natural boundaries, formed by rivers, mountains, etc. There are also political boundaries. These are often formed through war and compromise in treaties and agreements. In countries often form cultural boundaries that used to belong to a groups cultural homeland. However, countries in Africa, the Middle East and elsewhere aren't arranged by culture but politics, and Western countries turned their former colonies into nations without respect for culture.

Buffer state: A country lying between two more powerful countries that are hostile to each other. An example is Mongolia, which serves as a buffer between Russia and China.

Capital: Principle city in a state or country. The best place to locate a capital is at the center of a country, so it is a somewhat equal distance from all parts of the country.

Centrifugal: Religious, political, economic, conflict, etc. that causes disunity in a state.

Centripetal: An attitude that unifies people and enhances support for the state.

City-state: A region controlled by a city and that has sovereignty. They were more common in the middle ages and Renaissance in Europe.

Colonialism: The attempt by a country to establish settlements and impose political and economic control and principles. It was a big thing in the 17th through 20th century for countries in Europe to take areas around the world and make them into colonies.

Confederation: association of sovereign states by a treaty or agreement. It deals with issues such as defense, foreign affairs, trade, and a common currency.

Conference of Berlin: Regulated trade and colonization in Africa. It formalized the scramble to gain colonies in Africa and set up boundaries for each country's colonies.

Core/periphery: Core countries have high levels of development, a capacity at innovation and a convergence of trade flows. Periphery countries usually have less development and are poorer countries.

Decolonization: Decolonization is the movement of American/European colonies gaining independence. Some were peaceful struggles while others became violent.

Devolution: Devolution is the both the decentralization of a government from a unitary to a federal system or a fracturing of a government like Balkanization.

Domino theory: Domino theory is the idea that if one land in a region came under the influence of Communists, then more would follow in a domino effect. The domino theory was used by successive United States administrations during the Cold War, to justify American intervention around the world.

Exclusive Economic Zone: An Exclusive Economic Zone (EEZ) is a sea zone over which a state has special rights over the exploration and use of marine resources. The country that controls the EEZ has rights to the fishing, whaling, etc., as well as the raw material resources.

Electoral regions: Electoral regions are the different voting districts that make up local, state, and national regions.

Enclave/exclave: An enclave is a country or part of a country mostly surrounded by the territory of another country or wholly lying within the boundaries of another country (Lesotho). An exclave is a country which is geographically separated from the main part by surrounding alien territory (Azerbaijan).

Ethnic conflict: An ethnic conflict is a war between ethnic groups often as a result of ethnic nationalism or fight over natural resources. Ethnic conflict often includes genocide. It can also be caused by boundary disputes.

European Union: The European Union (EU) is a supranational and intergovernmental union of 27 democratic member states of Europe. The EU's activities cover most areas of public policy, from economic policy to foreign affairs, defense, agriculture and trade. The European Union is the largest political and economic entity on the European continent, with around 500 million people and an estimated GDP of US$13.4 trillion.

Federal: Federalism is a political philosophy in which a group or body of members are bound together with a governing representative head. Federalism is the system in which the power to govern is shared between the national & state governments.

Forward capital: A forward capital is a symbolically relocated capital city usually because of either economic or strategic reasons. A forward capital is sometimes used to integrate outlying parts of a country into the state. An example would be Brasília.

Frontier: A frontier is a zone where no state exercises complete political control. It is usually uninhabited or sparsely inhabited. It separates countries where a boundary cannot be found. A current example can be found between Saudi Arabia and Yemen.

Geopolitics: Geopolitics is the study that analyzes geography, history and social science with reference to international politics. It examines the political and strategic significance of geography, where geography is defined in terms of the location, size, and resources of places.

Gerrymander: Gerrymandering is the process of redrawing legislative boundaries for the purpose of benefiting the political party in power. The process is usually used to turn “too close to call” states into a party’s favor.

Global commons: Global commons is that which no one person or state may own or control and which is central to life. A global common contains an infinite potential with regard to the understanding and advancement of the biology and society of all life. (Forests, oceans, land mass and cultural identity)

Heartland/rimland: Heartland is the central region of a country or continent; especially a region that is important to a country or to a culture. Rimland is the maritime fringe of a country or continent.

Immigrant state: An immigrant state is a type of receiving state which is the target of many immigrants. Immigrant states are popular because of their economy, political freedom, and opportunity. One example would be the USA.

V. Agricultural & Rural Land Use

Adaptive strategies:

Agrarian: People or societies that are farmers therefore promote agricultural interest ext.

-Where agrarian people and societies are located is not generally near cities ext. but these types of people are essential to the way that we live and our ability to live in cities.

Agribusiness: Commercial agriculture characterized by integration of different steps in the food-processing industry, usually through ownership by large corporations.

- It influences how things are grown and what people eat

Agricultural Industrialization: The use of machinery in agriculture, like tractors ext.

- Makes it a lot faster for farmers to yield crop

Agricultural landscape: The land that we farm on and what we choose to put were on our fields.

- Effects how much yield one gets from their plants.

Agricultural location model:

Agricultural Origins: Through time nomadic people noticed the growing of plants in a cycle and began to domesticate them and use for their own use. Carl Sauer points out vegetative planting and seed agriculture as the original forms. He also points out that vegetative planting likely was originated in SE Asia and seed agriculture originated in W. India, N. China and Ethiopia.

-Without the development of agriculture we would still have a relatively small and likely uneducated population

Agriculture: The deliberate effort to modify a portion of Earth's surface through the cultivation of crops and the raising of livestock for subsistence or economic gain.

-It has influenced the growth of areas and human society

Animal Domestication: Domestication of animals for selling or using byproducts.

-Helped us obtain meat without having to go out and kill our food right before dinner.

Aquaculture: The cultivation of aquatic organisms especially for food

-Allowed us to use the sea and its abundant sources of food for our benefit

Biorevolution: The revolution of biotechnology and the use of it in societies.

- See reasoning for below term

Biotechnology: Using living organisms in a useful way to produce commercial products like pest resistant crops.

-Has helped the farmers grow a more bountiful harvest through the using of pesticides ext.

Collective farm:

Commercial Agriculture (intensive, extensive): Agriculture undertaken primarily to generate products for sale off the farm.

-Allowed people to move away from farms- fueled industrial revolution

Core/Periphery: The areas in the world that include MDCs are called the core and the area of the world that contains the LDCs is referred to as the periphery.

Crop Rotation: The practice of rotating use of different fields from crop to crop each year, to avoid exhausting the soil.

-Takes up large areas of land but keeps land usable for future generations

Cultivation regions: Regions where there is agricultural activity

- Areas with agricultural activity generally are not a place where a big city would be located- affects locations of different areas.

Dairying: The "farming" and sale/distribution of milk and milk products.

-Gets us calcium, allows for people to move to the city because there is a way of getting milk or milk products.

Debt-for-nature swap: When agencies such as the World Bank make a deal with third world countries that they will cancel their debt if the country will set aside a certain amount of their natural resources.

Diffusion: The process of spread of a feature or trend from one place to another over time.

-Influences the development of some regions faster than others

Double Cropping: Harvesting twice a year from the same land

-Can cause agricultural exhaustion making people move away from the land

Economic activity (primary, secondary, tertiary, quaternary, quinary):

Primary: Involves jobs like lumber and mining

Secondary: Manufacturing products and assembling raw materials

Tertiary: The service sector that provides us with transportation, communication and utilities

Quaternary:

Quinary:

- All of these jobs are necessary in the world

Environmental Modifications (pesticides, soil erosion, desertification): The destruction of the environment for the purpose of farming. (Using pesticides that drain in to the water and soil and pollute them overuse of land causing the desert like conditions of desertification (dust bowl).

-Doing harm to the environment through pesticides and causing desertification have horrible long term effect on humans and their future.

Extensive subsistence agriculture (shifting cultivation, nomadic herding/pastoralism):

Shifting Cultivation: Use many fields for crop growing each field is used for a couple years then left fallow for a relatively long time.

Nomadic herding/pastoralism: Based on herding domesticated animals

- Effect the way that some in the world to live and were they fall in demographic transition

Extractive Industry:

Farm crises:

Farming: see agriculture.

Feedlot: a plot of land on which livestock are fattened for market

-Essential to how we live and eat today- necessity for most people's diets

First agricultural revolution: Around 8000 B.C. when humans first domesticated plants and animals.

-This allowed for future generations to grow larger because they no longer we just a hunter gatherer society

Fishing – The technique, occupation, or diversion of catching fish. Fishing provides a food source and employment to society.

Food Chain – A series of organisms interrelated in their feeding habits, the smallest being fed upon by a larger one, which in turn feeds a still larger one, etc.

Forestry – The science of planting and taking care of trees and forests. Trees provide building materials and fuel to society.

Globalized Agriculture – Diffusion of agriculture across the globe.

Green Revolution – Rapid diffusion of new agricultural technology, especially new high-yield seeds and fertilizer. Because of Green Revolution, agricultural productivity at a global scale has increased faster than the population.

Growing Season – The season in which crops grow best. Growing season can vary by location, societies rely on their growing season to which crops they can or can't grow at their latitude.

Hunting and Gathering – Before the agriculture, humans gained food by hunting for animals, fishing, or gathering plants. They lived in small groups (less than 50 people), traveled frequently following game and seasonal growth of plants

Intensive Subsistence Agriculture – A form of subsistence agriculture in which farmers must expend a relatively large amount of effort to produce the maximum feasibly yield from a parcel of land. Popular in East, South, and Southeast Asia, because the ratio between farmers and arable land is so high, most of the work is done by the family by hand or by animal with processes refined over thousands of years.

Intertillage – Tillage between rows of crops of plants.

Livestock Ranching – commercial grazing of livestock over an extensive area. Practiced is semi-arid or arid land, where vegetation is too sparse or the soil to too poor to support crops. Prominent in later 19^{th} century in the American West; ranchers free roamed throughout the West, until the U.S. government began selling land to farmers who outlined their farms with barbed wire, forcing the ranchers to establish large ranches to allow their cattle to graze.

Market Gardening – The small scale production of fruits, vegetables, and flowers as cash crops sold directly to local consumers. Distinguishable by the large diversity of crops grown on a small area of land, during a single growing season. Labor is done manually

Mediterranean Agriculture – Farming in the land surrounding the Mediterranean Sea (Southern Europe, North Africa, and Western Asia), also in lands with similar climates (California, central Chile, Southwestern South Africa, and Southwestern Australia). Sea winds provide moisture and moderate winter; land is hilly with mountains frequently plunging directly into sea. Growing fruits, vegetables, flowers, and tree crops are the main crops, while animals are grown under transhumance – kept on coastal plains in winter and moved to hills in the summer.

Mineral Fuels – Natural resources containing hydrocarbons, which are not derived from animal or plant sources.

Mining – Extraction of valuable minerals or other geological materials from the Earth, usually from an ore body, vein, or coal seam. Any material that cannot be grown from agricultural processes, or created artificially, is mined (mining in a wider sense then including extraction of petroleum, natural gas, and water).

Planned Economy –Economic system in which a single agency makes all decisions about the production and allocation of goods and services. Commonly used in which state or government controls the factors of production and makes all decisions about their use and about the distribution of income. Example: Economy of the Soviet Union, in the 80's and 90's government presiding over planned economies began deregulating and moving toward market basted economies by introducing market forces to determine pricing, distribution, and production. Today most economies are market or mixed economies, except those in Cuba or North Korea.

Renewable – Energy replaced continually within a human lifespan, has an essentially unlimited supply and is not depleted when used by people. Solar energy, hydroelectric, geothermal, fusion and wind, are the most widely used.

Non-Renewable – Energy formed so slowly that for practical purposes it cannot be renewed. The three main fossil fuels (petroleum, natural gas, and coal) plus nuclear energy are the most widely used, mostly because they are more cost efficient.

Rural Settlement – Sparsely settled places away from the influence of large cities. Live in villages, hamlets on farms, or in other isolated houses. Typically have an agricultural character, with an economy based on logging, mining, petroleum, natural gas or tourism.

-Dispersed –Characterized by farmers living on individual farms isolated from neighbors rather than alongside other farmers in the area.

-Nucleated – a number of families live in close proximity to each other, with fields surrounding the collection of houses and farm buildings.

-**Building Material** – houses and buildings are typically built from materials that are abundant in the area.

-**Village Form –**

Sauer, Carl O. – defined cultural landscape, as an area fashioned from nature by a cultural group. A combination of cultural features such as language and religion; economic features such as agriculture and industry; and physical features such as climate and vegetation. "Culture is the agent, the natural area is the medium, the cultural landscape is the result."

Second Agricultural Revolution – Precursor to Industrial Revolution in the 19th century that allowed a shift in work force beyond subsistence farming to allow labor to work in factories. Started in United Kingdom, Netherlands, and Denmark, especially with the Enclosure Act, which consolidated land in Great Britain. Potatoes and corn diffused from America's to Europe, and other resources followed from colonial possessions to Europe.

Specialization – Third level of cities (behind World Cities, and Command and Control Centers), offer a narrow and highly specialized variety of services. Typically specialize in management, research and development of a specific industry (motor vehicles in Detroit), or are centers of government and education, notably state capitals that also have a major university (Albany, Lansing, Madison, or Raleigh-Durham).

Staple Grains – Maize, wheat, and rice are the most produced grains produced worldwide, accounting for 87% of all grains and 43% of all food. Maize staple food of North America, South American, and Africa, and livestock worldwide, wheat is primary in temperate regions, and rice in tropical regions.

Suitcase Farm –Individuals who live in urban areas a great distance from their land and drive to the country to care for their crops and livestock. This practice lends itself well to the growth of wheat. Allows families to continue their long relationships with the ancestral farm, but still enjoy the benefits of waged incomes in urban environments.

Survey Patterns –

-**Long Lots** (French) – Houses erected on narrow lots perpendicular along a river, so that each original settler had equal river access.

-**Metes and Bounds** (English) – Uses physical features of the local geography, along with directions and distances, to define the boundaries of a particular piece of land. Metes refers to boundary defined by a measurement of a straight run, bounds refers to a more general boundary, such as a waterway, wall, public road, or existing building.

Township-and-Range (U.S.A) – Survey's used west of Ohio, after the purchase of the Louisiana Purchase. Land is divided into six-mile square blocks (township), which is then divided into one-mile square blocks (range). Ranges were then broken into smaller parcels to be sold or given to people to develop.

Sustainable Yield – Ecological yield that can be extracted without reducing the base of capital itself, the surplus required to maintain nature's services at the same or increasing level over time. Example, in fisheries the basic natural capital decreases with extraction, but productivity increases; so the sustainable yield is within the ranch that the natural capital together with production are able to provide satisfactory yield.

Third Agricultural Revolution –'Green Revolution' Rapid diffusion of new agricultural techniques between 1970's and 1980's, especially new high-yield seeds and fertilizers. Has caused agricultural productivity at a global scale to increase faster than population growth.

Mechanization – Farmers need tractors, irrigation pumps, and other machinery to make the most effective use of the new miracle seeds. Farmer's in LDC's cannot afford this machinery or the fuel to run the equipment, so governments must allocate funds to subsidizing the cost of seeds, fertilizers and machinery.

Chemical Farming – Increased use of fertilizers with nitrogen, phosphorus, and potassium. The development of higher-yield crops has produced: a 'miracle wheat seed" which is shorter and stiffer, less sensitive to variation in day length, responds better to fertilizers, and matures faster; a similar miracle rice seed, that was heartier and has increased yields; a high-yield corn seed is currently being developed.

Food Manufacturing – the Green Revolution has increased production to avoid widespread famine. Allowing the world population to grow about four billion since stared, also allowing populations in developing nations to consume 25% more than before. This increase in diets is questioned by the content in diets; Asian farmers are eating more rice than fish and other vegetables because they can rely on rice to grow efficiently.

'Tragedy of the Commons' – social trap that involves a conflict over resources between interests and the common good.

Transhumance –pastoral practice of seasonal migration of livestock between mountains and lowland pasture areas.

Truck Farm – Commercial gardening and fruit farming, so named because truck was a Middle English word meaning bartering or the exchange of commodities. Predominant in Southeastern U.S.A, because of the long growing season and humid climate, accessibility to large markets of New York, Philadelphian, and Washington. Truck farms grow many of the fruits and vegetables that consumers demand in developed societies. Truck farms sell some of their product to fresh markets, but mostly to large processors for canning or freezing. Truck farms are highly efficient and large-scale operations that take full advantage of machines at every stage of the growing process.

Von Thunen, Johann Heinrich – 1826, Northern Germany. When choosing an enterprise, a commercial farmer compares two costs; cost of the land versus the cost of transporting production to market. Identifies a crop that can be sold for more than the land cost, distance of land to market is critical because the cost of transporting varies by crop.

Also found that specific crops were grown in varying rings around city. Market-oriented gardens and milk producers in first ring, because of expense of transportation and perishability. In the next rings wood lots used for construction and fuel, because it is a heavy industry with high transportation costs. Next rings are used for various crops or pasture, with the outermost ring devoted to animal grazing. Von Thunen's theory disregards site or human factors.

VI. Industrialization & Development

Agricultural labor force is the number of people who work in agriculture. This is important because a large value indicates that the country is likely an LDC dependent on agriculture, while a small value indicates that there are fewer people working in agriculture, meaning that the agriculture is more efficient.

Calorie consumption as a percentage of daily requirement is an important index of development. People in MDCs generally consume more than 130% of their daily requirements, but most people in LDCs barely get enough to sustain themselves. The problem is worst in Africa, where most people do not eat enough.

The **Core-periphery model** describes the pattern of distribution of the MDCs and LDCs. When the earth is viewed from the North Pole, the MDCs are clustered near the center of the map while the LDCs are near the edges.

Cultural Convergence is the change in culture that occurs as diffusion of ideas and technology increases. An example is the culture of LDCs becoming more like that of their former colonial power (an MDC).

Dependency theory states that LDCs tend to have a higher dependency ratio, the ratio of the number of people under 15 or over 64 to the number in the labor force.

Development is the improvement in material conditions of a place as a result of diffusion of technology and knowledge. This is important because it is a main goal for most of the planet's regions and development will help solve many problems.

Energy consumption is an index of development. MDCs tend to consume much more energy per capita than do LDCs. This will be important in the future because as LDCs begin to industrialize, there will be a great strain on the world's energy supply.

Foreign direct investment is investment in the economies of LDCs by transnational corporations based in MDCs. However, all countries are not recipients of this investment. Brazil, China and Mexico were the LDCs that received most of the investment.

Gender is an important developmental factor. A great difference in development between the genders is found primarily in LDCs, especially in the Middle East. Differences exist primarily in income and in literacy rate.

Gross domestic product is the total value of goods and services produced in a year in a given country. The value varies greatly between MDCs and LDCs and is one of the best indicators of development. Fast growth of GDP is a major goal of all countries.

Gross national product is similar to GDP except that includes income that people earn abroad.

The **Human Development Index** is an aggregate index of development, which takes into account economic, social and demographic factors, using GDP, literacy and education, and life expectancy.

Levels of development that countries are classified into include MDCs (more developed countries) and LDCs (less developed countries).

Measures of development are used to distinguish LDCs from MDCs. They include GDP, literacy rate, life expectancy, caloric intake, etc.

Neocolonialism refers to the economic control that MDCs are sometimes believed to have over LDCs. Through organizations such as the IMF, the MDCs are able to dictate precisely what LDCs economic policies are, or are able to use their economic subsidies to put LDCs industries out of business.

The **Physical Quality of Life** index is another development index. It is based on literacy rate, infant mortality rate, and life expectancy at age one.

Purchasing power parity is an index of income related to GDP. Unlike GDP however, PPP takes into account price differences between countries. Usually goods in LDCs are priced lower, so this makes the difference between LDCs and MDCs less.

W.W. Rostow developed the "Stages of Growth" model of economic development.

Technology gap- The difference in technologies used and/or developed in two companies, countries, ethnic groups, etc., where one is more advanced than the other.

- Important because it helps to explain the differences between MDCs and LDCs.

Technology transfer- process by which existing knowledge, facilities, or capabilities developed under federal research and development funding are utilized to fulfill public and private needs

- Important because it allows for knowledge to be utilized for various needs instead of being confined to a certain sector.

Third World- countries in the developing world independent of their political status (developing countries)

- Important because it is a classification to explain differences between the countries of the world.

World Systems Theory- refers to perspective that seeks to explain the dynamics of the "capitalist world economy" as a "total social system"

- Important because explains the power hierarchy in which powerful and wealthy "core" societies dominate and exploit weak and poor peripheral societies.

Bid rent theory- refers to how the price and demand on land changes as the distance towards the CBD increases

- Important because it provides an explanation as to the spatial distribution of urban areas.

Assembly line production/Fordism- industrial arrangement of machines, equipment, and workers for continuous flow of work pieces in mass production operations, each movement of material is made as simple and short as possible

- Important because it allowed for goods to be produced at a rate comparable to the demand for many of those products, made for more efficient manufacturing industries.

Air pollution- concentration of trace substances at a greater level than occurs in average air, human causes include mainly motor vehicles, industry, and power plants

- Important because it can damage property and adversely affect the health of people, other animals, and plants.

Agglomeration economies- refers to benefits or advantages (savings, cost reductions, etc.) resulting from the spatial clustering of activities and/or people

- Important because

Acid rain- tiny droplets of sulfuric acid and nitric acid in the atmosphere that dissolve in water and return to Earth's surface

- Important because it has damaged lakes, killing fish and plants.

"Stages of Growth" Model- linear theory of development that developed countries go through a common pattern of structural change (1-Traditional Society, 2-Transitional Stage, 3-Take Off, 4-Drive to Maturity, 5-High Mass Consumption)

- Important because it explains the development experience of Western countries and is a general model for many others.

Rostow, W. W. - economist, developed the "Stages of Growth" model in the late 1950s

- Important because he developed the model that is frequently referred to.

Aluminum industry- U.S. companies are the largest single producer with plants in 35 states producing about $39.1 billion in products and exports. U.S. supply is comprised of three sources, primary, imports and recycled

- Important because it is a large industry that is important in transportation, packaging and building and construction.

VII. Cities & Urban Land Use

Agglomeration – a built up area consisting of central city and its surrounding suburbs

(similar to the term "urbanized area", shows the extent of a city's influence)

Barriadas – a neighborhood, usually a slum or lower class

(many of the Latin American cities have these outside the central city)

Bid-rent Theory – explains that the price/demand for land increases closer to the CBD

(explains the concentric zone model and why different levels of development are located at certain distances from the central city)

Blockbusting – the process of white families selling their homes because of fears that blacks would move in and lower the property value

(explains the white flight of the 1950's and the growth of suburbs)

CBD – stands for central business district, location of skyscrapers and companies

(would always be the center of the 3 urban models, many people commute, few actually live there)

Census Tract – these are govt. designated areas in cities that each have ~5,000 people,

they often times correspond to neighborhoods
(data in census tracts is used to analyze urban patterns such as gentrification or white flight)

Centrality – the strength of dominance of an urban center over its surrounding area,

larger than the MSA or agglomeration
(Twin Cities centrality extends up into northern MN, over into ND, SD, and western WI)

Centralization – the movement of people, capital, services, and govt. into the central city

(opposite of suburban sprawl, happened to cities before WWII and is happening now)

Christaller, Walter – he created the Central Place Theory, which explains how services are distributed and why there are distinct patterns in this distribution

(central place theory involves market area/hinterland and the threshold, which is the minimum number of customers needed to keep the business running)

City – centralized area with a mayor and local government, usually bigger than a town

(cities started in the Greek/Roman times, more and more people live in cities, especially in LDC's)

Cityscapes – similar to a landscape, yet of a city (cityscapes often show the city's skyline, which is the CBD).

Colonial City – cities founded by colonial powers, such as Mexico City by the Spanish

(these often contain plazas, large Catholic cathedrals, and historic architecture, most of these are in Latin America and in Southern Asia, in India)

Commercialization – the process of the increasing importance of business

(advertisements in cities, development leans toward services)

Concentric Zone Model – created by E.W. Burgess, city grows outwards from a central area

(CBD in middle, then zone of transition, then zone of workers' homes, then zone of residences, then commuter's zone)

Counterurbanization – a net migration from urban to rural areas

(this only happens in very developed areas in North America and Western Europe)

Decentralization- the process of dispersing decision-making outwards from the center of authority

(We learned about how nation states break up and form their own political clouts)

Deindustrialization- process of social and economic change caused by removal of industry.

(We learned about how MDCs moved on after the 1800s.)

Early Cities- Cities of the ancient world (-3500 to -1200) (We learned about how agriculture and language began in this era.

Economic base- Communities collection of basic industry (We learned about job sectors)

Edge city-A new concentration of business in suburban areas consisting of suburbs (We learned about urban sprawl.)
Emerging cities- City currently without much population but increasing in size at a fast rate (learned about cities that are growing at a fast rate)

Employment structure- graph showing how primary secondary and tertiary sector jobs are separated.

Entrepot- Trading center where goods are exported and imported without cost. (We learned about centers of trade.)

Ethnic neighborhood-A neighborhood with distinctive ethnic composition (We learned about segregation of cities into ethnic backgrounds.)

Favela - A shantytown or slum, especially in Brazil (We learned about the slum conditions faced by Latin American countries.

Female-headed household- A household dominated by a woman (We learned about how MCDs have different family structure.)

Festival landscape-a landscape of cultural festivities (We learned about the culture.)

Gateway City-a settlement which acts as a link between two areas. (We learned about primate cities, which are similar.)

Gender- a person's sex (We learned about differences that occur as a result of gender.)

Gentrification- process in which low cost neighborhoods are renovated by middle class to increase property values. (We learned about the positives and negatives of this process.)

Ghetto- A usually poor section of a city inhabited primarily by people of the same race, religion, or social background. (We learned about the worst parts of cities.)

Globalization- Development of worldwide patterns of economic relationships (we learned about he future impact this will have.

Clean Air Act: The name given to a series of air-quality improvement laws and their amendments passed in the United States beginning in 1963.

Critical mineral: A mineral necessary for defense of the United States and available partly in America or partly from friendly nations.

Hydrothermal mineralization: A process of concentration of metallic ores caused by high-temperature geochemical processes in underground waters.

Law of the Sea Treaty: A treaty establishing jurisdiction over marine resources in coastal and deep-sea areas.

Placer deposit: A deposit of a mineral formed by a concentration of heavy minerals in flowing water, such as by a stream or waves.

Recycling: Reprocessing of a used product for reuse in a similar or different form.

Reserve: In the context of mineral resources, a deposit of known location and quality that is economically extractable at the present time.

Stockpiling: Amassing amounts of some substance well beyond present needs in anticipation of a shortage of that substance.

Strategic mineral: A mineral necessary for defense purposes for which the United States is totally dependent on foreign sources.

Subeconomic resource: A resource that at present is unavailable for use because of the high cost of extraction.

Substitutability: The degree to which one material can be substituted for another in end uses.

Tailings: Solid waste products derived from mineral extraction or refinement.

Unidentified resource: A mineral resource assumed to be present within known geologic districts, but not yet specifically located or characterized in detail.

Weathering: The breakdown of rocks into smaller particles or new chemical substances as a result of exposure to water and air at the earth's surface.

MANY OF THESE TERMS WILL BE USED IN MORE THAN ONE UNIT!