

# **Educator's Guide For Human Geography: Making Sense of Planet Earth**

For Advanced Placement and College

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## **MATERIALS IN THE SERIES**

**Educator's Guide** – This Educator's Guide has been prepared to aid educators in utilizing materials contained within this series. In addition to this introductory material, the guide contains the following:

- Suggested Instructional Notes
- Student Learning Goals

## **INSTRUCTIONAL NOTES**

It is suggested that you preview the series and read the Student Goals and Educator Points. By doing so, you will become familiar with the materials and be better prepared to adapt the series to the needs of your class. Please note that each program is set up to be played continuously and you will probably find it best to follow the series and the programs in the order in which they are presented, but this is not necessary. Each program can be divided into chapters accessed through the DVD's Menu Screen under Chapter Selects. In this way each chapter can be played and studied separately. It is also suggested that the series presentation take place before the entire class and under your direction. As you review the instructional programs outlined in the Educator's Guide, you may find it necessary to make some changes, deletions, or additions to fit the specific needs of your students.

## **INTRODUCTION AND SUMMARY OF SERIES**

*Human Geography: Making Sense of Planet Earth* is a new approach to presenting the unparalleled concepts, principles and insights of human geography. In this series acclaimed geographer Dr. Alexander B. Murphy presents significant discoveries, individuals, and theories that make human geography a cutting edge science in the 21<sup>st</sup> Century. Human geography's unique perspective embraces not only where humans live, work and play, but how geographic context influences what happens where and how people create the places where they live, work and play. Human geography also focuses on the distribution of places and human characteristics throughout the planet, and how they connect to one another. *Human Geography: Making Sense of Planet Earth* begins with the tools human geographers have developed to understand the ever-changing human landscape. It then examines distribution of populations and population growth across the planet. Then it investigates the many facets of human culture and moves on to political geography. How agriculture has sustained the ever growing human population comes next, and is followed by economic geography and then the growth of cities and urban land use. Finally, the series concludes with a look at how the insights of human geography can help us face the challenges of the 21<sup>st</sup> Century.

The eight programs are laid out so they can be viewed in their entirety, or by selecting individual chapters, be viewed separately. Each chapter presents a story of the science of geography. Most importantly, scientific concepts as well as historical themes and figures, are clearly presented using state of the art visuals that make learning easy and fun.

Below is a list of the series' programs and their chapters. Using these programs, educators can create a lesson plan to cover the specific issues, themes and historical figures mentioned.

**Program 1: The Tools of Human Geography**

- Chapter 1: What is Human Geography
- Chapter 2: Maps and Human Geography
- Chapter 3: The Importance of Scale in Human Geography
- Chapter 4: Formal, Functional and Vernacular Regions
- Chapter 5: Fieldwork in Human Geography

**Program 2: Population Distribution and Migration**

- Chapter 1: Introduction to Population Distribution
- Chapter 2: The History of Population Growth
- Chapter 3: The Demographic Transition Model
- Chapter 4: Thomas Robert Malthus' Prediction
- Chapter 5: The Three Types of Migration
- Chapter 6: Push and Pull Factors of Migration
- Chapter 7: Migratory Counter-flows
- Chapter 8: Future Population Growth

**Program 3: Understanding Human Culture**

- Chapter 1: Culture and Place
- Chapter 2: Folk Culture
- Chapter 3: Popular Culture
- Chapter 4: What is Diffusion
- Chapter 5: The Three Types of Diffusion
- Chapter 6: Language
- Chapter 7: Religion
- Chapter 8: Race and Ethnicity

**Program 4: Political Boundaries**

- Chapter 1: Political Power and Territory
- Chapter 2: The Rise of Ancient Empires
- Chapter 3: The Emergence of Nations
- Chapter 4: Political Boundaries Make their Appearance
- Chapter 5: The Territorial Evolution of the United States
- Chapter 6: Distinguishing Between Nation and State
- Chapter 7: The Creation of New Geopolitical Entities

**Program 5: Agriculture and Rural Land Use**

- Chapter 1: Global Distribution of Agriculture
- Chapter 2: The First Agricultural Revolution
- Chapter 3: Primary Regions of Agricultural Diffusion

- Chapter 4: The Second Agricultural Revolution
- Chapter 5: The Green Revolution and Geopolitical Policy

**Program 6: Industrialization and Economic Development**

- Chapter 1: Economic Diversity
- Chapter 2: Gross Domestic Product
- Chapter 3: United States Economic History
- Chapter 4: Economic Development
- Chapter 5: Natural Resources
- Chapter 6: Commodity Chain
- Chapter 7: Economics and Geographic Place
- Chapter 8: Redefining Economic Development

**Program 7 - Cities and Urban Land Use**

- Chapter 1: Urban Landscapes
- Chapter 2: Origins of Urbanization
- Chapter 3: Urbanization Diffusion
- Chapter 4: Feudalism
- Chapter 5: The Industrial Revolution
- Chapter 6: Urban Land-Use Models
- Chapter 7: Urban Spaces
- Chapter 8: Future Urbanization

**Program 8: Confronting Future Challenges**

- Chapter 1: Strategic Directions for the Geographical Sciences
- Chapter 2: Species Extinction and Biodiversity Loss
- Chapter 3: The Anthropocene Era
- Chapter 4: Climate Change
- Chapter 5: Globalization
- Chapter 6: Economic Inequalities
- Chapter 7: Food Production and Distribution

**SUMMARY OF PROGRAMS FOR HUMAN GEOGRAPHY: MAKING SENSE OF PLANET EARTH**

**Program: 1: The Tools of Human Geography**

Program one introduces the techniques and tools human geographers have developed for understanding the ever-changing human landscape.

Chapter one defines what human geography is and what it does.

The use of mapping to represent human geographers' discoveries is discussed in chapter two.

Chapter three examines the importance of scale in human geography.

Chapter four defines formal, functional and vernacular regions - the three types of regions used in human geography.

Chapter five shows why and how fieldwork is an important tool in human geography.

### **Chapter 1: What is Human Geography**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- People are not evenly distributed across Earth's surface
  - What they are doing and where they are doing it is in constant flux
  - Understanding the 'where' part of the human equation is a fundamental contribution of human geography
  - This knowledge is absolutely critical for success in the complex, globally interconnected world of the 21st century
- This knowledge is important to understanding political and economic relationships in the 21<sup>st</sup> century
- The human geographical perspective is the spatial perspective
  - For example, the spatial perspective allows us to see how the local connects to the global
  - Also how these different elements of the local interact with each other to form different patterns and processes across the Earth's surface
- The strength of human geography is looking at the interconnectiveness of things
- Human geography tells the story of how the world got the way it is and what's happening now
- Human geography gives us tools to think spatially and understand what might happen in the future
- The human geographical way of looking at the world was long in the making
  - At first many geographers were only interested in understanding the physical world
  - Some geographers did look at how humans interacted with their world and with other humans
  - In the 20<sup>th</sup> century human geography became a formal part of the academic discipline of geography
- One of the pioneers in the study of human geography was Carl Sauer
- Human geographers came to the realization that people were the agents of change
  - People not only reacted to their environment but shaped their environment
  - Throughout history people have rearranged the landscape to serve their economic, social, and cultural needs
  - The Inca Empire is a good of example of this
- Human geography adds the 'where' and 'why there' to how and what humans do from religion to economics

## **Chapter 2: Maps and Human Geography**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Maps are one of the basic tools that human geographers use to communicate discoveries
- Human geographers use maps to help understand patterns
  - Patterns help people understand what's happening on the planet's surface
- How maps can show things such as population distributions
- About a special map that shows population density around the world without political boundaries or anything else
  - A map like this shows not only where population densities are high, but where the greatest pressures on food resources will be in the future

## **Chapter 3: The Importance of Scale in Human Geography**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Every map is drawn to some scale
  - Some maps cover a large area but only reveal the largest features
  - Others cover a relatively small section of Earth's surface and show a lot of detail
- Scale is one of the fundamental issues in the analysis of space for physical and human geography
- One of human geography's major contributions lies in its focus on scale
- Careful attention to scale can help us understand the implications of activities for environmental sustainability
  - The problem of environmental sustainability has many scales from the community level to the city scale, to the national scale
- Scales of influence exist between individuals, communities, nations, states, multinational corporations and supranational organizations

## **Chapter 4: Formal, Functional and Vernacular Regions**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Identifying and describing regions is a technique shared by physical and human geography
- A region is an area where a particular characteristic is more prevalent than in other areas
- Regions are a useful way of dividing up the world into areas to simplify understanding
- The human landscape can be divided into many regions as well
  - There are language regions
  - Religious regions
  - Regions characterized by particular land uses or economic activities
  - Regions that have political or cultural significance
- Identifying regions can be an important first step toward explaining why people and the products of their activities are found where they are
- There are basically three types of regions

- Perceptual or vernacular regions such as the American West
- Functional regions such as a farming area
- Political regions such as states delimited by the state boundaries

### **Chapter 5: Fieldwork in Human Geography**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- The last important tool of human geography is good fieldwork, seeing what is happening on the ground, analysis of the data, and clear presentation of the results
- What makes good fieldwork
- An example of fieldwork using natural gas stations in southern California
- Mapping, regionalizing, exploring how things are organized and connected at particular scales and across space are techniques of human geography
  - They show human geography's fundamental interest in the places and patterns created by humans on Earth's surface
  - These techniques provide important insights into the changes that are reshaping the world of the twenty-first century

### **Program 2: Population Distribution and Migration**

Program two focuses on the most fundamental aspect of the human landscape: the distribution and concentration of people across the planet. At the same time it examines how population geography has changed over time, and why.

Chapter one looks at population distribution across the world.

Chapter two describes the history of human population growth as we changed from hunter-gatherer societies to living in villages and then cities.

American demographer Warren S. Thompson's Demographic Transition Model is examined in chapter three.

Chapter four investigates the dire predictions of Thomas Robert Malthus on human population growth.

The three types of migration are discussed in chapter five.

Looking at the influence of push factors, factors that encourage people to leave an area, and pull factors, factors that draw people into a place, chapter six examines why people migrate from one area to another.

Chapter seven describes the impact of counterflows on human migration.

Chapter eight discusses future population growth for planet Earth.

## **Chapter 1: Introduction to Population Distribution**

**Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

**Population density** depends upon place, where you are

- Population density is arrived at by a simple calculation - divide the number of people by an area
- Population distribution is uneven
  - Understanding why this is so, and how it is changing, is an exciting and important part of population geography
- Global population distribution depends upon a number of factors, including environment, physical, human and historical events
- One of the key physical factors is topography
  - Lands that are flat tend to have the highest population density
  - Mountainous areas tend to be thinly populated
- Another major physical factor is climate
  - Temperate climates have been conducive to the development of large-scale, sustained agriculture, resulting in dense urban populations
  - Climates that are extremely hot and dry, or have extremely cold winters result in low density populations
- Modern humans developed in Africa, but then began spreading around the world

## **Chapter 2: The History of Population Growth**

**Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Early in human history the presence of natural resources facilitated the development of concentrations of people
  - Then permanent settlements appeared and they acted as springboards for population growth
- An important factor in population increase is because people can leave children with caretakers
- Cities developed for many reasons
  - Early on, it was often for defensive reasons
- In many places across the globe, surplus agriculture and effective governance systems led to some villages growing into cities
- Urbanization promoted two things
  - Population distribution became more uneven
  - Urban centers fostered concentrations of wealth that facilitated further population growth
- As small settlements evolved, people had greater control of their environment and food supply
  - As a result, mortality rates begin to decline
  - As mortality rates decline, population increases
  - Greater and greater population densities are distributed across areas that are prime for agriculture

### **Chapter 3: The Demographic Transition Model**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- In 1929, American demographer Warren S. Thompson, developed the demographic transition model
- It is based on observations about the change in birth and death rates of a country over time as it becomes more urbanized and more industrialized
- In this model there are four transitional phases of population growth
  - Stage 1 - pre agricultural society has high birth and death rates
  - Stage 2 - agricultural society birth rates remain high but death rates begin to fall
  - Stage 3 - industrial society birth rates decline as do death rates
  - Stage 4 – birth and death rates are much lower and population growth is much lower
- The demographic transition model was developed by looking at what took place in areas such as Europe and the United States
- In other places population change does not follow this model for a variety of place-specific reasons such as medical technology or government policies

### **Chapter 4: Thomas Robert Malthus' Prediction**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- In the 19<sup>th</sup> century Thomas Robert Malthus noted human population was beginning to grow at a staggering rate that corresponded to industrialization and sanitation
- Malthus made dire predictions, known as Malthusian population theory, that the planet would not be able to support future population growth
- In the 1960s the Club of Rome extrapolated Malthus's ideas in a semi scientific way and saw the world coming to a real crisis of mass starvation as Malthus predicted
- Other things happened, including the so-called green revolution and so no disaster

### **Chapter 5: The Three Types of Migration**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Migration is another major way populations can grow or shrink in a particular area
- Migration of people from one place to another has been going on since there were humans
- People moving from one place to another is inherently geographic
- There are three definitions of migration
  - One is immigration associated with the permanent movement of people from one place to another, such as immigrants arriving in America
  - Another is cyclical, in which people move from one place to another place on a regular schedule
  - The third is periodic in which people move step by step over a period of time as in terms of following a career

## **Chapter 6: Push and Pull Factors of Migration**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- To make sense of the ways place influences migration, geographers think in terms of push and pull influences
  - Factors that encourage out-migration, such as war and lack of economic opportunity, are push factors
  - Factors that draw people to a place are pull factors
  - The balance of these factors provides a framework for answering the question: ‘Why do people move from one place to another?’
- Geographers think that everybody has a propensity to move or migrate
- In most people’s minds, migrations are interactions between pulls and pushes
- It tends to be the case that people who are pulled to a new location are happier there than people who are pushed
- The story of the Sioux Nation, starting around 1700, provides an excellent example of push and pull factors
  - This one-time sedentary Woodland tribe, moved onto the Great Plains through a combination of push and pull
  - As American settlers moved westward they drove Eastern tribes across the Mississippi, creating push pressures
  - At the same time, a new bountiful food supply in the form of great buffalo herds provided a great attraction pulling them onto the plains
- Present-day California provides a contemporary case study of geographic push-pull factors

## **Chapter 7: Migratory Counter-flows**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- The frontier westward movement of the U.S. population has kind of come to an end
  - California is a good example of this as the push and pull factors of California have switched around in the opposite direction in recent years
  - There are push factors that are leading people to leave California
- One of the main reasons people move is housing related
  - In the move to Arizona from California the housing price differential at the border is just enormous
  - So the growth of Phoenix and Tucson and other places has a lot to do simply with cheaper housing
  - That means employers can pay lower wages, and that’s a big attraction for being more competitive in the economic markets
- There’s a tendency for population systems to equilibriate over time to settle down and to set up counter flows
- In migration we find that for every stream of migration in one direction, there’s also a counter stream in the other direction
- The so-called brain drain/brain gain is another type of counterflow
  - People leaving a third world country to go to U.S., is the brain drain from that country of origin and a brain gain for the U.S.

- If people then return to their country of origin, then it becomes reversed trend
- There is a third alternative known as brain circulation
  - People such as university professors go back and forth between both countries
- There is also, international diffusion process where ideas and technology are diffused throughout the world

### **Chapter 8: Future Population Growth**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Population has been increasing exponentially up until the 1960s when the rate of growth began to slow down
- The peak rate of growth for the world was about 2% per year
- The rate of population growth now is about six-tenths of one percent
- It is now believed by many population experts that after 2050 the world's population will reach a peak of 10 billion people and then begin to decline
- The extraordinary movement of people from the countryside into urban areas will likely continue
- To grasp the nature and significance of these developments we must understand the patterns of population growth, decline, and movement
- We also need to consider the cultural compositions of different peoples and the consequences of the diffusion of certain cultural traits from their places of origin

### **Program 3: Understanding Human Culture**

Program three investigates human culture and how geography helps everyone make sense of the cultural landscape.

Chapter one discusses the important role of place in human culture.

Chapter two examines the impact of folk or local cultures.

The role of popular culture is discussed in chapter three.

Chapter four describes the concept of diffusion in cultural geography.

Chapter five discusses the three types of diffusion and what they mean in understanding human geography.

The distribution of language groups and their movement are discussed in chapter six.

Chapter seven looks at the impact of religion in human culture.

Chapter eight examines how race and ethnicity serve as focal points of identity in human culture.

## **Chapter 1: Culture and Place**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Place has had an important role in the rise of human cultures
- Cultures are dramatically different from one another
- One way geographers study different cultures is by looking at how cultures and cultural attributes end up where they do
  - To do this, they have to make sense of the many different things that are grouped together under the term culture
- One of the most important distinctions in cultural geography is the distinction between popular and local culture
  - Local culture has a particularly strong connection to place
- People have a very common everyday notion of place, but the idea of place is much more complex, including dwelling and caring about place
  - For example, the Cherokee Indians in North Carolina see themselves as having a unique culture deeply derived from place
  - The Cherokee have their own language, including a written form, perform age-old religious practices, crafts and arts

## **Chapter 2: Folk Culture**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Cajuns and the Amish are among the better-known folk or local cultures in the United States
- Most folk cultures, including immigrant groups, make places that reflect their ideas and preferences
  - For example, many Chinese-Americans live in distinct neighborhoods known as Chinatowns
  - Chinatowns in the U.S. have changed over the years
- One of human geography's interesting questions is 'What's happening to local or folk cultures across the planet?'
- One view is that they are disappearing
- Another view is that folk cultures are still flourishing
  - As popular culture has diffused around the world, many local cultures in a lot of ways have intensified their sense of identity
  - We still have over 6000 languages in the world today
  - Many People still communicate in their local languages and still make sense of who they are in terms of their local places

## **Chapter 3: Popular Culture**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Popular culture is ubiquitous, it's everywhere
- Popular culture is what makes people feel that they belong to the whole world in some way shape or form

#### **Chapter 4: What is Diffusion**

**Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Cultures are more like a process than a thing
  - At different rates over time and place, cultures are always changing
    - Nowhere is this clearer than when we look at popular cultural characteristics
    - Any place you go in the world, a Wal-Mart looks like a Wal-Mart
    - Wal-Mart has become a global retailing icon in the 21st century - affecting the cultural landscape and cultural consumption habits across an incredible array of places and peoples
    - It provides an excellent example of how a cultural/economic phenomenon diffuses across the landscape
    - Diffusion is one of the most useful concepts in all of geography and is particularly useful in understanding popular culture
- Diffusion is the spread of an idea or a phenomenon over space

#### **Chapter 5: The Three Types of Diffusion**

**Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Geographers have identified and defined three types of diffusion, which characterize the movement of ideas, things or people across space
  - Contagious diffusion is person to person
  - Hierarchical diffusion is where an important person or place promulgates a new idea and then the subjects or popular culture follows it
  - Stimulus diffusion in terms of popular culture is that an idea comes in from the outside and stimulates a new concept that mixes with what's already there into something new

#### **Chapter 6: Language**

**Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Almost every child from birth is biologically equipped to speak and to learn a language in a social setting
- Language is a prerequisite for functioning in the world
  - It is how we think, plan and connect with other people
  - Language is the main way we humans make sense of the world
- The distribution of language groups and their movement is an important area of study in cultural geography
- In the 21st century, English is spoken fluently by over half a billion people spanning the globe
  - English is the language of the Internet, aviation and science
- How English has become such a globally dominant language
  - There are two basic ingredients
  - England was one of the early colonial powers
  - England was the birthplace of the Industrial Revolution
- So language, like culture itself, is always on the move

- But in some cases, languages have gone extinct
- To make sense of the thousands of languages, we group them into language families
  - Half the human population is speaking Indo-European languages
  - A smaller but still significant percentage are Sino-Tibetan and so forth
  - A simple way the major language families are mapped across the globe
  - The map shows that the great spread of Indo-European languages is associated with colonialism
- Just because something is broadly extended across space doesn't mean that all that many people are actually speaking a particular language

### **Chapter 7: Religion**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Today, the two dominant languages spoken in the Western Hemisphere are English and Spanish
- As these languages diffused from their mother countries during the colonial period, different cultures emerged
- Religion played a key role in forming these cultures
- The Spanish were committed to convert the New World to Catholicism
- They built many missions, which became early focal points for the development of their population centers
- The English colonists often sought religious freedom
  - They immigrated primarily as families and organized themselves into clustered settlements around an open area called a common
  - A church was part of the common
  - Settlers also received a private plot of land
  - Eventually this system provided the basis for the emergence of a strong concept of private land ownership, largely free of control by church or state
- Religion has always played a vital role in people's efforts to make sense of the world
  - In playing that role, religion has shaped cultures
- But religion also defines the cultures that are not part of them
  - As a result religious differences have led to conflicts
- Perhaps the most obvious way religions relate to place is through the creation of sacred space
  - The ancient Maya organized their city-states in concentric circles around central religious temples
  - Christians put large amounts of labor and money into building and maintaining their churches
  - Jewish temples are important structures in many American urban and suburban landscapes
  - A mosque in addition to being a place of worship is a community gathering place
  - Hindu temples are dwelling places for their gods
  - Buddhist temples and Shinto shrines are places of prayer
  - Of course burial grounds, cemeteries, are another kind of sacred space, unique places that shape the look of the physical and human landscape

## **Chapter 8: Race and Ethnicity**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Today in many places, race and ethnicity serve as foci of identity
- How race is understood is dependent on geographic context - the ideas different peoples living in different places have about human divisions
  - However in reality there is only one race: the human race
- What the relationship is between the concepts of race and ethnicity
  - The answer again depends on geographic context
  - The Europeans of the 15th century thought of Sub-Saharan Africa as a place occupied by one race and many ethnic groups
  - But when Africans were brought to the New World as slaves, things changed
  - They were treated differently because their skin was black
  - As a result they developed a shared culture and identity based on how they were treated
  - In the process ethnicity and race were merged
- Every American city is an ethnic/racial mix
- Of course many American cities are racially segregated as well
  - Racial segregation is something that's been very stark in many American cities
  - It is often a product of larger circumstances that make it difficult for racial/ethnic groups to move into other neighborhoods
  - In Baltimore, Maryland, racial/ethnic groups are organized into three distinct neighborhoods – White, Hispanic, Asian and Black
  - Nearly every American metropolitan area has this pattern of racial/ethnic segregation
- Four important components of human geography are language, religion, ethnicity, and popular culture
  - Geographers seek to understand where these components are found and what explains their geographical distribution
- The study of cultural geography does not stop there
  - Cultural geographers are also interested in understanding how the nature and meaning of these components differ from place to place
  - Cultural geographers focus attention on how local geographic contexts shape ideas and arrangements to understand larger questions
- One of the most significant influences on the distribution and meaning of cultural spaces is the partitioning of the planet into political spaces

## **Program 4: Political Boundaries**

Program four examines how human geography can make sense of why the world has been divided politically in the past and how it is divided politically today.

Chapter one defines the terms political power and territory.

The significance of Earth's ancient empires is examined in chapter two.

Chapter three shows how the concept of fixed boundaries resulted in a new way of thinking about territory – the emergence of nations.

Chapter four studies the impact of political boundaries on emerging nations.

Chapter five looks at how the United States grew territory by territory.

The difference between nation and state is discussed in chapter six.

Chapter seven looks at the emergence of new geopolitical entities from old empires.

### **Chapter 1: Political Power and Territory**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- About the relationship between political power, people, space and territory
  - When people gather for, or are part of, some purpose-driven activity, the question of “Who's in charge?” naturally emerges
- The notion of the relationship between power and place is that there are strategic landscapes that give you physical power over other people
  - Fortress locations are obvious ones
- King, Queen, Lord, Chief, President, Governor, and Mayor are terms for seats of power, with authority over a territory
- Human territorial projects are constantly changing as states, nations, tribes, and clans face external and internal pressures
- A good example is the case with the American Indian tribes that occupied the Great Plains from 1750 to 1890
  - Each group had its own territory it defended and controlled, giving the group an exclusive right to utilize the resources
  - To some early geographers, tribes seemed to be governed by the same laws that governed the expansion and change of biological species
- However, this model, known as Social Darwinism, was too simple
  - For example, The Plains Indians forced the U.S. government to develop a cavalry
  - In turn the cavalry forced the Plains Indians to trade for firearms, an external variable that goes far beyond anything observable in the natural world
- What has remained from these early attempts to understand the ever-changing political landscape was the relationship between power and territory
  - This relationship changed with the rise of many ancient empires

### **Chapter 2: The Rise of Ancient Empires**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- In most ancient empires, the allegiance of the people within the empire was to the ruler
  - Often the power of the ruler of these empires emanated from military force
  - But military force alone is rarely sufficient

- Those in power are not able to sustain their power unless they develop a sense of legitimacy among a broader segment of the society
- Alliances with religious leaders, economic development projects, and guarantees of protection against outside threats are all part of the effort to build legitimacy
- Examples of great empires include Rome, Alexander the Great's, the Mongols, the Incas, the Aztecs and the Ottoman Empire
- Medieval Europe was a time of constant political upheaval during which entire kingdoms rose and fell with remarkable speed

### **Chapter 3: The Emergence of Nations**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- As Europe began moving out of the Middle Ages, a new idea about political power began to slowly emerge
  - This idea that involved was the concept of fixed boundaries and budding national loyalties, not to the ruler, but to a shared common identity and territory
  - It came out of the European experience with empires such as the Austro-Hungarian Empire
- The concept of nation is rooted in the concept of volk
  - Philosophers of the time posited that people were the way they were because they were a member of a volk, of a certain cultural group
  - And they thought that these groups, these volk, should be free and independent and not be controlled by another volk
  - They had this notion that each volk should organize itself
  - They should focus on their mother tongue, folk dress, folk dance, folk music, folk art and try to recreate the essence of the volk
  - Then you get these volks organized into a nation
  - When that nation had a political boundary around it, it became a political state

### **Chapter 4: Political Boundaries Make their Appearance**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Looking at planet Earth from outer space we cannot see any boundaries between independent states
- Country boundaries are all human inventions
- Understanding how they came to be and their importance in shaping the world is one of the most fascinating parts of human geography
- The notion of boundaries and power is another aspect of political geography
  - There weren't really sharp political boundaries in the world until geographers figured out how to really accurately measure places
  - When that happened, the nature of boundaries changed
  - The Europeans came up with this idea of a real sharp line in the sand that says this is one country and that's another
  - The notion of building a strategic defense along the line followed
  - The result is a complex interplay between place and power that moves from a strategic fort to an area with a sharp boundary

- Nations culturally reinforce these boundaries
- Boundaries or borders are found on lots of different scales
  - Some examples of boundaries are school district boundaries, municipal boundaries, county boundaries, state boundaries, country boundaries, even boundaries around supranational blocs like the European Union
- Country boundaries have been in recent historical times particularly volatile
  - This is because peoples' senses of territory in many cases are tied up with nationalism
  - Where people have different senses of political territory that can often lead to conflict
- Boundaries can also function in very different ways depending upon where you are
  - The old boundary between East and West Germany was hard to cross
  - By contrast almost anyone can easily cross the Washington/Oregon state boundary
- On the scale of political states, this way of organizing territory can trace its origin back to the Peace of Westphalia in 17th century Europe
  - Westphalia was a switch from a world of large empires to smaller political units, which have closer ties to the population identities
  - By 1648 Western Europe had organized itself into something resembling the political states of today
- The idea of nationalism, or belonging to a nation, really didn't get going until the American and French Revolutions in the 18<sup>th</sup> century
  - Here, strong national identities had already taken shape
- The political stability and newfound wealth of the major western European states provided the opportunity for global expansionism through colonization
  - Among the more influential exports to Europe's colonial empires were political-geographic ideas of the state, of sovereignty and of territories with well-defined political boundaries

## **Chapter 5: The Territorial Evolution of the United States**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- A brief history of America becoming a nation
- One of the early British colonies would become the United States
- When the American War for Independence succeeded, a new country was created with distinct national political boundaries
- America's national identity would be built over the next 200 years as the country expanded its territory, constantly redrawing its boundary maps
- America is a clearly delineated state on the world stage
  - A state based not on the idea of being the homeland of a particular ethnic nation
  - Nor is the U.S. a state whose boundaries were imposed from the outside by political powers
  - In many ways, the United States is politically unique

## **Chapter 6: Distinguishing Between Nation and State**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Geographers have shown that in many places, people's sense of ethnic or national belonging does not correspond to existing official state boundaries
- The pattern of nations in the original sense of the term does not look like the pattern of political states
- The distinction between nation and state is easily recognizable in the modern-day British Isles
  - The United Kingdom is made up of Great Britain and Northern Ireland
  - Britain usually refers to the three territories of England, Scotland and Wales
  - There are four nations - Irish, English, Scottish, Welsh
- A nation is a cultural identity - a group of people who have some form of shared identity
- Who really sits at the United Nations is states, it's not really nations or peoples
- Political geographers differentiate between nations
- Often there multi-nation states
- The United States are often called a melting pot
  - Sometimes nations are divided across states such as the Middle East's Kurds
  - Kurds are thought of as a nation, a group of people with a shared identity, a shared history, shared goals, but they don't have their own state
  - They're a nation without a state
  - Israel provides a classic example - the Jewish nation predated the coming into being of a Jewish state, which did not happen until 1949
- The nation-state idea often hides more complicated political realities
  - Political boundaries frequently change
  - Most of the boundaries on the modern world map of states did not exist 150 years ago
  - The political boundaries around most states are not of natural origin, but are conventions made by humans
  - As such, boundaries are frequently contested and can only be maintained through the exertion of power
  - The former Soviet empire is a classic example of this

## **Chapter 7: The Creation of New Geopolitical Entities**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- In the 21st century, many new states are forming out of the old empires as nations clamor for territory and sovereignty
  - Somalia is a good example of this
  - Somalia sits on the U.N but it does not control two huge territories in its north
- There is still a relationship between the leader and the people in the territory, but that differs a lot
  - Leaders need to create a national identity
- Political geographers are interested in how the political organization of territory reflects and shapes other patterns—ethnic, economic, and environmental

- Looking at these relationships is vital if we are to understand why many conflicts develop and design arrangements that can encourage cooperation
- Political geographers also focus on the constant reconfiguration of the political map
  - The rise of supranational entities such as the European Union—or trading blocs such as NAFTA—is part of a larger reconfiguration
  - This reconfiguration has changed the nature and meaning of territory in the wake of globalization and the 21<sup>st</sup> Century’s technological revolution
  - These have changed patterns of communication and economic exchange
  - One of the central political geographic questions for the 21<sup>st</sup> Century is what these developments will mean for the spatial organization of political life and the effort to confront key socio-economic challenges

### **Program 5: Agriculture and Rural Land Use**

Program five studies the primary relationship between people and the land and how agriculture has developed to sustain Earth’s ever-growing population.

Chapter one introduces the concept of how agriculture is distributed across the planet.

Chapter two discusses the first agricultural revolution when humans turned from hunter-gatherers to subsistence agriculture.

The eleven regions where most fruits and vegetables originated are discussed in chapter three.

Chapter four describes the second agricultural revolution, which intensified farming as a commercial enterprise.

Chapter five examines the impact of the 20<sup>th</sup> Century’s green revolution on geopolitical policy.

### **Chapter 1: Global Distribution of Agriculture**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- There is nothing more that humans have done to change the landscape of the planet than to cultivate the land
  - Over forty percent of the Earth’s land is now given over to agriculture, and that figure is rising
  - Geography, or place, and agriculture fit together like hand in glove
- Different crops show up in different places across the globe
- Reasons for growing crops in particular areas are many
  - Soil and climate conditions
  - The diffusion of a plant from a different hemisphere
  - The global market has created a demand for the crop
- Understanding how this distribution came to be is a major geographical question
- It begins with understanding the origin and the spread of agriculture when humans went from hunting and gathering to deliberately tending crops for food

## **Chapter 2: The First Agricultural Revolution**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- For most of human history, humans lived in small family groups living directly off the land by hunting and gathering
  - Where they lived was greatly influenced by physical geography
  - People were tied to water corridors, forest openings and coastal shorelines
  - Today less than 300,000 people actually live solely by hunting and gathering without some connection with agriculture
- Agriculture began a number of times in a number of different places from what geographers call hearths
- There are two camps for how people switch from being hunter-gatherers to concentrating in cities or in agricultural civilizations
  - One concept says agriculture begins with irrigation and people needing a fresh water source such as a river
  - The other theory is the idea that people settled first in places with volcanic soils and mountainous kinds of highlands environments
  - This idea is that there is lots of diversity of plant life in a short distance because of the elevation change and different climates
  - People could experiment with lots of different plant life in those places
- A third concept is that people settled down in part to defend themselves against others
  - Agriculture happens and with agriculture being successful people can settle down and with settling down the populations can increase
- There are basically two ways to cultivate plants
  - One is by gathering and planting seeds
  - The other is by taking cuttings from existing plant stems or roots – vegetative planting
- Vegetative planting appears to have originated in three primary areas or hearths
  - Southeast Asia where it spread to Africa and the Pacific Islands
  - A Secondary hearth in the Mediterranean where it spread north into Europe
  - And in the northern Andes of South America where it spread to North America
- Seed crops such as wheat had their own places of origin
  - Cultivating plants that produce edible seeds prompted human ancestors to develop new technologies and agricultural practices
  - Harvest and storage of seeds
  - Preparing soils and understanding seasonal cycles of planting and growing
  - Choosing the seeds from the most robust plants for next year's planting
- There are three hearths of seed agriculture in Eurasia and Africa - present-day Ethiopia, western India and northern China
- In the new world there are two hearths - in the Andes and in present-day southern Mexico
- Each location resulted in a unique assemblage of cultivated plants and domesticated animals along with unique agricultural practices
- There are also common characteristics among all early agriculture
  - All agriculture arose after the last Ice Age
  - Tools for agriculture became just as important as weapons

- Nomadic lifestyles were replaced by sedentary lifestyles
- The search for better hunting grounds was replaced by the search for more fertile land ... Some wild animals and plants became domesticated
- The first agricultural also domesticated humans
- The first agricultural revolution increased humans' capacity to extract energy from the environment
- The initiation of agriculture had a lot to do with pulling a little bit of power towards some people and away from more even based societies
  - Agriculture centralizes power

### **Chapter 3: Primary Regions of Agricultural Diffusion**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- In the early 1950s cultural geographer Carl Sauer identified 11 regions from which most fruits and vegetables originated
  - A brief list of these 11 regions
- It's important to know where these origin areas were and to collect seeds and genetic material in order to continue creating better and better crops
- A brief look at the origin, diffusion and hybridization of corn
  - The great cornfields of Middle America today came from ancient corn agriculturalists called maize cultures
  - The earliest form of corn that's known from Central Mexico is actually a wild grass, and it's called maize
  - The cobs were only about an inch long
  - Over a two thousand year period the corn cobs get bigger and bigger, and interestingly, they add more rows
- The other interesting thing that happens in the American Southwest is that the corn diversifies genetically

### **Chapter 4: The Second Agricultural Revolution**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Subsistence agriculture gradually began to give way in many places to another agricultural regime: surplus or commercial agriculture
- This was a major change with far reaching results
  - It accelerated agriculture's impact on the physical environment
  - More and more land came to be cultivated in an increasingly intensive way
  - Surplus agriculture made it possible for philosophers and scientists to spend their time building knowledge instead of growing crops
- Eventually this knowledge led to what is called the second agricultural revolution
- The second revolution had phases
  - Phase one was improving agricultural land practices
  - The next phase of the second agricultural revolution was mechanization
- Mechanization occurred simultaneously with the Industrial Revolution
  - Farm labor now poured into the rapidly growing cities

- For the first time geographical hypotheses about the spatial organization of agricultural practices began to develop
- The first person to consider this in any serious way was a 19<sup>th</sup> Century German economist by the name of von Thunen
  - Von Thunen imagined a spatial area of concentric circles around a town
  - Each circle represented a type of farming
  - The insight von Thunen had was that land use would be affected by things like the cost of transportation to market, the perishability of goods, and the cost of land
  - The principles that von Thunen was trying to articulate still apply 150 years later in a much more complicated world

## **Chapter 5: The Green Revolution and Geopolitical Policy**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- By the 20<sup>th</sup> Century, agriculture had become a global business
  - When corporations got involved with developing machinery they would send salesmen as agents of change promoting agriculture
  - Also the government got involved in this with agricultural fairs and research stations and sponsoring the genetic manipulation of plants and animals
  - What developed was the Borlaug or the so-called green revolution - a national policy to change the agricultural production in various parts of the world
- As a result, two major global geographical policy questions have arisen:
  - ‘What should be grown where?’
  - ‘What should the over 7 billion people distributed across the planet be eating?’
- How human geography strives to look these issues
  - Bringing in new technologies and types of crops means looking at the whole system in terms of inputs, such as water and pesticides will be necessary
  - Human geography looks not only at what technology does for humans but the costs of that technology to humans
  - One way of describing the issue of 21<sup>st</sup> century farming is that the problem lies not in growing food but food distribution
- We’re living through an era of unprecedented changes and challenges for the agricultural system
  - Challenges include food distribution as well as growing enough food
  - The rapid rise in agricultural production has been driven by inputs that are degrading the quality of the soil and water on which human life depends
  - The population continues to grow, raising serious questions about how the food system can keep pace
  - Agriculture is inextricably tied to larger political and economic shifts
  - We need to deepen our understanding of the impacts of different agricultural practices on places and environments
  - Geographic analysis is essential to confronting these challenges

## **Program 6: Industrialization and Economic Development**

Program 6 looks at how human geography can make sense of the economic world in the global economy of the 21<sup>st</sup> Century.

Chapter one explores economic diversity and how it is not evenly distributed across the planet.

Defining the GDP - Gross Domestic Product - and interpreting its importance are examined in chapter two.

Chapter three looks at the economic history of the United States.

Chapter four looks at the classic definition of development and whether such development is good for everyone.

How industrialization has reorganized economies is discussed in chapter five.

Chapter six examines the importance of the commodity chain in understanding how globally connected the world's economy has become.

Chapter seven discusses the importance of place in understanding the economy.

Chapter eight shows how we need to redefine development if economically developed countries are going to help less developed countries achieve well-being for their citizens.

### **Chapter 1: Economic Diversity**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- There is economic diversity across the planet
  - The economic landscape is not even
  - This observation has led geographers to look at the spatial distribution of economic factors
  - These factors include factors like resource availability, transportation infrastructure, labor costs, location of people, location of markets, availability of technology and knowledge
  - The interplay of these factors and others is organized geographically at different scales
- Looking at the ways in which processes operating at different scales interact with one another and affect the human landscape is relatively new

### **Chapter 2: Gross Domestic Product**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- How economic development is measured and what does it mean

- These issues are commonly addressed by looking at GDP, or Gross Domestic Product, the measure of the total goods and services produced within a country
  - GDP measures only the formal economy, so it does not capture things like bartering, mowing your lawn, the massive trade in illegal drugs
  - It does tell us much about the relative economic position of different places
- Mapping economic indicators such as GDP to determine socio-economic well-being
- Maps have limitations as well as advantages
  - Using a map of the Eastern U.S. as an example, on a large scale the entire eastern part of the U.S. looks like it has a pretty high GDP
  - Zooming in on Appalachia, we realize the GDP is much lower in some places than in others
- Using a map to show GDP is based on dividing the land surface of the Earth up into a bunch of grid cells
  - Areas with stronger formal economies get colored darker colors, and ones that have less strong are lighter colors
  - The reason an area might be colored white differs from place to place
- Geography is an important element in comprehending the changing global economic picture
  - It helps in understanding the fundamental differences in economic patterns from place to place
  - It helps in grasping how the differences in different places shape what happens and why

### **Chapter 3: United States Economic History**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- At the beginning of the 20<sup>th</sup> Century geographers and economists focused attention on the fact that economies are always changing using the U.S. as an example
  - Colonial America began with self-sufficient agricultural communities
  - By 1774 the colonies were strong enough economically to break away from England
  - For the next 150 years, America expanded geographically from sea to sea
  - During that time, economic development was boosted by a series of infrastructure projects - canals, ports and railroads - connecting the country from one end to the other
  - Along the way, Americans discovered an abundance of natural resources
  - America invested in public education and institutions of higher learning
  - The U.S. transformed from an agrarian based economy to an industrial one by the turn of the 20<sup>th</sup> Century
  - Following WWII, came a booming consumer economy of the 50s and 60s
  - By the 70s, the economy was again transforming into an information economy
  - By the 90s, America had developed a large financial service economy
  - In the 21st century it is at the forefront of the newly emerging, globally connected, virtual Internet world

## **Chapter 4: Economic Development**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- This story of the U.S. economy is one of development
  - Economic advances associated with improvements in technology
  - Efficiency in the production of goods and services
  - A rise in the general material wealth of its citizens
- This notion of development goes back to the Industrial Revolution beginning in Great Britain
  - New technologies came on line that profoundly changed the organization and location of economic activities
- By the early 20th century some form of industrialization had spread throughout much of Europe, parts of North and South America, Japan and Russia
- In each place industrialization took on unique characteristics
- In the 1960s economist Walt Rostow put forth an evolutionary model of economic growth and development
  - The model argues that economic modernization occurs in five basic stages of varying length
  - Traditional society, transitional Stage, take-off, drive to maturity, and high mass consumption
- Many geographers see a weakness in his model
  - Rostow doesn't take into account place - the ways that local context influences how economic processes unfold
  - Rostow's model works in industrialized societies like Europe but not in colonial societies, such as in Africa
- Historically, many geographers consider development of institutions, like banking and education, as critical to development
- Other geographers thought of development as infrastructural or having to do with certain kinds of cultural mechanisms
- Many geographers have dispensed with the idea of development altogether because, sometimes, the more development that goes on in a place, the worse things become

## **Chapter 5: Natural Resources**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- While it can seem almost immoral not to want development for all people on the planet, development has a bad track record
  - Exploitation of people by powerful political entities
  - Degradation of the environment
  - Destruction of local cultures
  - Mishandling of natural resources
- No factor played a greater role in economic development, for good or ill, than the geographic distribution of valuable natural resources
- Geographers have this old saying that resources are cultural achievements, so that a resource is a part of the Earth's surface that has some value to us
  - These are natural or economic resources

- Calling them cultural achievements is a way of saying that pieces of the Earth became valuable when certain groups of people figured out how to use them
- In Minnesota, the Dakota Sioux valued pipestone for carving pipes because they knew how to use it
- They did not value the iron ore because they did not know how to use that
- Resources are scattered unevenly across the planet
  - Some geographers suggest that one way of looking at resources is to say where there's scarcity you have problems
  - Often development is hindered by the absence of resources
  - This is not always true
  - The great cities along the silk route, were the centers for civilization and trade throughout Eurasia and they didn't have resources to speak of

### **Chapter 6: Commodity Chain**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- One of industrialization's hallmarks is the massive reorganization of economies around large-scale manufacturing
  - This manufacturing capitalizes on the intense use of fossil fuels and access to markets
  - One way to understand how this organization works is to look at how products develop through what is termed a "commodity chain"
- How a commodity chain works beginning with a person eating a scone at a bakery in Boulder, Colorado
  - The scone was made by a local bakery from wheat that was brought from a grain silo in Nebraska by railcar
  - The wheat was harvested by a combine manufactured at John Deere's plant in East Moline, Illinois
  - The plant's computer parts used in making the combine were manufactured overseas, in Germany and China
  - The combine's steel parts were forged in Cleveland, Ohio
  - The raw iron traveled all the way from Minnesota's Mesabi Iron Range
- The commodity chain shows two things
  - First the fascinating interconnectivity of the scone with a factory in China
  - It is an interconnectivity of places that, through industrialization, has reorganized the physical and human landscape of America and the world
  - Second, fossil fuels are involved along every step of the way
  - In this commodity chain, place matters greatly
- Nonetheless, a new school of economic thought has emerged based on the idea that the economic world is becoming flat and place doesn't matter much anymore
  - Because of the increased speed of communication and the low costs of transport, the idea is that any economic activity can be done anywhere
- Many economic geographers disagree with this idea

## **Chapter 7: Economics and Geographic Place**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Geographers were very aware of the clustering of particular kinds of industries in particular locations
- There are various kinds of clusters all over the world, where a particular region is specialized in a particular industry
- There are three main reasons why place matters greatly in the emerging 21st century economy
  - A shared labor pool of specialized laborers who know the technologies and have experience
  - Technological spillovers, where ideas or technologies that are being developed in one company can leak out
  - The network of local suppliers that are really essential for a company to do business in the area
- Geographers are beginning to offer alternatives to understanding economic development and analyzing the economic landscape in other places

## **Chapter 8: Redefining Economic Development**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Geographers are redefining economic development and providing alternative ideas
  - These alternatives are based on distinctive characteristics of individual places
  - Development means each region maximizing its own potential
  - Every place doesn't have to be developed to the same degree or to the same way for people to be successful
- Western countries base development on what they know
  - The formal economy and the cash economy
  - The role of infrastructure
- For development of other places in the world the western model needs to change
  - Pay attention to what the people in the place are already doing
  - Create participatory development – find out what the people know who live there and what works
  - People on the ground know a lot about what works for them and they have a good sense of how to make their economy grow
- The global economy is more interconnected than it has ever been, but interconnectivity does not make all places the same
  - Some places are much more integrated into the global economy than others
  - In many places inequalities have grown in the face of globalization
- Places bear the stamp of the particular historical, cultural, environmental, and socio-economic factors that make them distinctive
- To forge a more equitable world we need to appreciate how economic activities are organized on the planet's surface
  - We need to appreciate how economic changes ripple through the world
  - We need to understand economic geographic patterns and connections

- In the contemporary world, cities play a disproportionate role in shaping those patterns and connections

## **Program 7: Cities and Urban Land Use**

In 1800 only 3% of the world's population lived in cities. Now in the 21st century more than half of humanity lives in urban areas. Program seven examines where are cities located, how are they organized, and what are they like and how by answering these questions we can begin to understand how to live on a planet of global cities.

Chapter one examines the different kinds of urban landscapes but how cities in general have the same basic kind of function.

Chapter two discusses the five hearths or places that are the origin of cities.

Chapter three shows how the idea of cities spread across the planet from the original five hearths.

Chapter four looks at how a new kind of social and economic system known as feudalism produced a new kind of stratification in society.

The impact of the Industrial Revolution in the evolution of cities is shown in chapter five.

Chapter six examines the dispersal pattern in the distribution of cities.

How central place theory works in many cities of the United States is discussed in chapter seven.

Chapter eight examines the future of cities as the rate of urbanization increases across the planet.

### **Chapter 1: Urban Landscapes**

**Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- There are several different kinds of cities based on their primary functions
- In general cities have the same kind of function - they're designed to allow people to have access to amenities and the basics of life
- Cities are a pattern of central places and marginal places
  - The central place could be a downtown, a neighborhood shopping strip or mall
  - People sort themselves out in space based on their needs to have access to these places and their ability to pay the rent or buy the land in the accessible locations
- Around the world all cities look similar and they look different
  - They all have centers of shopping, government, recreation
  - They've got housing arrayed in a pattern based on access to these locations
  - People live in these areas according to their wealth
- Making sense of this great diversity in urban landscapes is one of human geography's jobs

- The origins of cities
  - Cities and urban centers have grown up independently in many places across the planet
  - Moving from an agricultural lifestyle to an urban setting is part of the natural development of human culture
  - Building and maintaining cities required a whole new level of human organization and a new relationship to natural resources

### **Chapter 2: Origins of Urbanization**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Archaeologists have identified five hearths or places of origin for urbanization
  - The Nile Valley, Mesopotamia, The Indus Valley in Northwestern India, Northwestern China, and Mesoamerica
- In all of these cases of early urbanization, there were common factors
  - Stratification of society, emergence of a ruling class, occupational specialization and surplus agriculture

### **Chapter 3: Urbanization Diffusion**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- From the five original hearths, urbanization rapidly diffused to other areas
  - From Mesoamerica urbanization spread north into North America
  - The result was the great cliff dwelling cities of the Anasazi in the desert southwest and the mound builders urban complex of city-states along the Mississippi River
- Another example of urban diffusion was the rise of the ancient Greek city-states in the wake of early urbanism in Mesopotamia and the Nile Valley
- The rise of cities led to whole new ways of organizing space
- How ancient cities organized using ancient Athens as an example

### **Chapter 4: Feudalism**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Medieval Europe had a social and economic system known as feudalism
  - The concentration of power in the hands of a ruling elite produced a specific kind of stratification of place and society
  - This stratification manifested in a general resident artisan class an upper elite class, and a lower class
- Feudalism was found in many places that developed urban complexes across the globe: Japan, China, Korea, Africa, South and North America
- But it was out of European feudalism that a new kind of urban structure began to emerge
  - The mercantile city and then the industrial cities of Britain
- This was a new kind of city that brought with it the further specialization of place for both economic activities and labor

## **Chapter 5: The Industrial Revolution**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- The Industrial Revolution started a type of specialization - machines that aided people in creating and manufacturing
  - Economics changed from the guild style of manufacturing into the manufacturing industry of today
- Power generation made this possible
  - Power generation began with water wheels then went to coal power
  - Coal was difficult to transport in the beginning so manufacturing cities grew up around the coal fields
- With the rise of the industrial city and the flow of people into these manufacturing cities, the question became, ‘Where would these people live?’
  - Originally as industrial cities started, workers lived in substandard housing

## **Chapter 6: Urban Land-Use Models**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- By the 20th century, human geographers were beginning to see patterns in the distribution of cities as well
  - There seemed to be a dispersal pattern of small cities, medium-sized cities and a few large cities
  - Large cities seemed to have an organizing function for groups of smaller urban centers
  - An idea called central place theory helped to explain these patterns
- A number of urban land-use models have been proposed to explain city development
- In the 1920s, a scholar named Ernest Burgess, came up with the first formal land use model for city development - the Burgess Concentric Zone Model
- This model showed a downtown, surrounded by the older suburbs, surrounded by the industrial land use, and out to the new suburbs
- Twenty-five years later another model came about, the sectoral model developed by a man named Hoyt
  - People in large cities live their lives in sectors around a central downtown
  - This made possible through transportation corridors
- After the 1950s a third model known as the Harris Ullman Model appeared
  - This model says that with the coming of the Automobile Age, large cities have Multiple Nuclei

## **Chapter 7: Urban Spaces**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Central place theory holds true in important ways in the United States such as with sports
  - At least until the advent of cable networks that broadcast games far and wide, if you asked people what sports teams they rooted for, the answers would typically reveal a region around a city with a sports team

- This is because cities traditionally exerted the greatest cultural and economic influence over their immediate hinterlands
- Urban complexes aren't just important regional nodes
- Urban complexes have their own internal geographical characteristics that reflect how spaces within the city came to be understood and used
- Portland, Oregon is a prime example of how cities develop as regional nodes and internally
  - Portland developed right near the confluence of the Columbia and the Willamette River for economic reasons
  - A good harbor and strategic access to the resources of the Willamette Valley and the grain growing areas of eastern Oregon and Washington
  - Portland has a large Chinatown because Chinese laborers came here during the gold rush and then filled agricultural and timber jobs
  - Portland is an example of a unique aspect of American cities - particular functions zoned to occur in particular areas
  - An area for commercial, an area for residential, an area for warehouses and light industrial activities, and each area is a separate one from the other
  - Something else that's particular about the U.S. was this decision to allocate land in a city around a grid pattern
  - Transportation systems are key to knitting a city's parts together
  - Portland has a state of the art transportation system
  - It's oriented around an integrated network of light rail and buses and suburban transportation options
  - Portland has signature green spaces set aside for the enjoyment of its citizens
- In other parts of the world, cities have a different spatial layout
- In other cities, in Africa and Latin America and to a certain extent parts of Asia, the wealthy want to be in the city center
  - The middle and the low income people are consigned the fringe, the edge of the city, where the elite don't want to live
  - It's the same fundamental process of trying to get access to the things people need
  - The difference is what is the dominant economy of a particular city
- Another difference is the overlay of culture in each city
- What makes urban geography so fascinating is general principles of access, or central place theory, that helps explain what cities look like
- But there's always interesting differences in different sized cities and in different cultural realms

## **Chapter 8: Future Urbanization**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Most of the planet is already over 65% urban
  - Urbanization is growing at a phenomenal rate
  - This massive shift in where people live will be one of the greatest changes the planet has ever witnessed
  - It is a geographic change affecting every aspect of planetary processes
- Geographers can shape how space unfolds in an urban setting

- Geographers look at many different aspects of how cities work
  - Patterns within and across neighborhoods
  - Transportation networks and flows
  - Physical settings and the trends in a particular area and its connections to larger urban areas
  - Economic, political and social trends
  - Geographers can take all these different elements together and persuade decision makers, persuade the public on what is going on
- Cities are now the crucibles for most of the ideas and innovations that are shaping the human geography of the planet
  - How cities are organized affects peoples' daily lives and prospects
  - How and where they grow influences their environmental impact
  - How they are connected to one another shapes who benefits from globalization, and who does not
- Appreciating the changing face of Earth's urban geography is one of the keys to understanding some of the most pressing issues facing the planet in the decades ahead

### **Program 8: Confronting Future Challenges**

In the 21<sup>st</sup> century, the Earth's surface is being reshaped and reorganized on a scale unprecedented at any other time in the planet's history. It is a change directly caused by humans. Program eight investigates why geographical concepts and insights are critical to the effort to confront the challenges of our ever-changing planet as its population grows to a staggering 10 billion people in the 21<sup>st</sup> century.

Chapter one examines the geographical sciences and their strategic directions for the 21<sup>st</sup> century.

Chapter two discusses how geographers look at species extinction and biodiversity loss as it affects the entire planet.

What the Anthropocene Era means to planet Earth is discussed in chapter three.

How climate change is unevenly distributed across the planet is examined in chapter four.

Chapter five examines the effects of globalization on the Earth and how interconnectivity is both flattening it and making it lumpy.

Chapter six looks geographically at the unprecedented inequalities across the globe.

Using access to food and hunger, chapter seven examines the socio-economic divisions across the planet.

## **Chapter 1: Strategic Directions for the Geographical Sciences**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Geographical analysis can help us understand events like Hurricane Katrina and its impacts
- Geography is fundamentally important to knowing where we are and how our place is affected by activities in other parts of the world as in Hurricane Katrina
  - Katrina was a category five hurricane that hit New Orleans in late August of 2005
  - 80% of the city was flooded and over 1500 people died
  - It was the worst civil engineering disaster in U.S. history
  - In the aftermath it was clear that local, state, and federal engineering and planning agencies never appropriately connected with each other
- One way to understand the Katrina disaster is to map the impacts showing areas of population loss
  - Such mapping can show us something about the socio-economic dimensions of the Katrina disaster

## **Chapter 2: Species Extinction and Biodiversity Loss**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Thinking about a problem like species extinction geographically can help us understand what's going on
- Human force changes the biogeography of the Earth
- 300 years ago a tall grass prairie ecosystem covered the center of the North American continent
  - It was rich in biodiversity and contained many species of plants, animals, and microbes
  - Now, instead of native plants, this region grows primarily two crops: corn and soybeans
  - Turning the tall grass prairie into one of the world's great breadbaskets would appear to be a success story
  - But one of the most profound geographical insights is that the transformation of native ecosystems into agricultural lands varies greatly from place to place
  - Some attempts fail completely
- Bio-geographical observation tells us that biodiversity is not evenly distributed across the planet
  - It is concentrated in rain forests, primarily tropical rain forests
  - Large-scale commercial enterprises, such as clear-cutting the Amazon Rainforest, have played a role in biodiversity loss
- The old environmental model of preservation - "eliminate the corporate bad guys" - has proven to be inadequate
- A new model is needed
- There are no quick and easy solutions to protecting biodiversity
- Conservation has three elements
  - Developing the resources for the benefit of the present generation

- Protecting those resources through good management for the benefit of future generations
- Distribution of the benefits of development and protection of those resources to all members of society
- The key to making the new model of preservation work is understanding the geographical variation in the economics, politics, and ecology of each bio-diverse hotspot
  - Every place where you're trying to protect biodiversity has a different set of economic activities, social relationships, political contexts

### **Chapter 3: The Anthropocene Era**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Protecting biodiversity is just one of the challenges that has arisen as a result of humanity's increased capacity to change the surface of the planet
- Humans have entered a new era, the Anthropocene Era, with roots in the Industrial Revolution
  - The Anthropocene is the modern era of geological time in which humans are a major agent of change in our Earth environment
  - The Anthropocene tells us that the Earth is not too big for humans to have an impact on it
  - The Anthropocene tells us we have 7 billion people moving toward 9 or 10 billion people on Earth and they are major agents of change

### **Chapter 4: Climate Change**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Climate changes are not evenly distributed across the planet
  - Rising sea levels will directly impact coastal cities but not inland cities
  - Hotter summers and shorter winters in America's West mean less precipitation in the form of snow affecting water supplies of large urban complexes in the Southwest but not elsewhere
- Part of dealing with these place specific changes is to recognize that more change is coming
- The Industrial Revolution kicked off a whole new climatic era-climatic era anchored in the Anthropocene
  - What a new era means is we can't go back
  - It forces us to deal with the question, 'how do we adapt to these circumstances'
  - The challenges anchored in the Anthropocene go beyond the consequences of modifying natural processes and altering the physical landscape
- Dealing with climate change, there are challenges tied to the uneven, rapidly changing distribution of human factors
  - Economic activity, wealth, good health, power, knowledge, access to resources, care giving, and patterns of ethnic, social, and geopolitical affiliation
- One of the key features of the Anthropocene era is globalization

- Globalization is producing two powerful counter currents: a tendency toward flattening the Earth and a trend toward lumpiness

### **Chapter 5: Globalization**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- You can look at the world as smooth space, and you can look at it as striated, split space
  - One idea is that with globalization places are different because they are connected
  - The relationship through globalization tends to drive new kinds of activities and new relationships
  - An example of this new relationship through globalization is the use of copper in smart phones, wind turbines and hybrid cars
  - Copper is not evenly distributed throughout the world
  - New relationships will grow because of the need for copper by areas that do not have it
- Globalization has made sure places will become connected through the development of trade relations and through geo-political relationships
  - If you use one lens or the other, you'll see totally different relationships and possibilities in the geography, and they're both true

### **Chapter 6: Economic Inequalities**

#### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Careful analysis of changing geographical arrangements shows that the leveling effects of globalization produced unprecedented economic inequalities that cannot be ignored
- Natural resources are unequally distributed across the globe
  - In the world of natural resources there are the haves and have-nots
  - In fact, natural resources are not evenly distributed within a country
  - This uneven global, country, regional and local distribution of natural resources is also true for factors that affect the quality of human life
- Perhaps underlying them all is the unequal distribution of income represented by the Gini coefficient
- The Gini Coefficient is a kind of index how income is distributed across various segments of the population
- Looking at inequality, the most unequal countries in terms of the distribution of income are both very rich countries like the U.S. and middle income countries like Brazil
- There's a complex relationship between the overall level of income in a country and the rate of income inequality
- It is partly a function of the political system in a country
- There's a big contrast that has to do with the tax and redistribution systems that occurs within a country

## **Chapter 7: Food Production and Distribution**

### **Student Goals – In this *Human Geography: Making Sense of Planet Earth* chapter the students will learn:**

- Understanding the nature and implications of those inequalities requires we look at two things
  - The geographical distribution of haves and have-nots
  - The circumstances the haves and have-nots find themselves in
- In order to do this we need to map and analyze the many socio-economic divisions in the world so we know what's happening where and understand better the influences on the distribution of inequality
- Understanding also depends upon scale
- On a global scale America is free of hunger issues
  - However, the reality is that approximately 37,000,000 Americans lack adequate food
  - Going to another scale, it appears the state of New Jersey is hunger free
  - In reality New Jersey is characterized by extreme wealth and extreme poverty
  - Within the state, nearly 1,000,000 people are in need of food assistance
  - Access to food is not evenly distributed
- Understanding how local context shapes possibilities and prospects for people is one of the key challenges for human geography
- Globally the world is rapidly moving towards large-scale mechanized mono-cropping
  - This practice is highly susceptible to sudden declines in production from environmental stresses
  - In the 1840s, 1 million, mostly poor people died in Ireland when a potato blight wiped out Ireland's mono-cropping of potatoes
  - Poor people everywhere will be affected differently by the stresses of crop failure brought about by climate change or disease
- We need to think systematically about what we eat and when we eat it and why we eat it
  - Obtaining food comes at an expense to the global environment and to the global economy
- Looking at the 21<sup>st</sup> Century's challenges is essential to analyzing the forces shaping the planet in the 21st century
  - These forces include migration, urban sprawl and geopolitical conflict
- As a result we are undergoing a massive shift in the way we collect and catalog information about the planet
  - Aided by new geospatial technologies, we are increasingly organizing information by geographical location
  - This allows us to see the connections that exist among and between ecological, economic, social, and political processes as they play out across the Earth's surface
- Geography today can help us recognize and assess the changing patterns, connections, and places that make up the contemporary world
- One of the key challenges of our time is to expand and deepen geographical understanding so that we can better grasp where we are and where we are going
- The stakes involved are nothing less than the future of Earth itself