

ADVANCED PLACEMENT

HUMAN GEOGRAPHY SERIES



INSTRUCTOR'S GUIDE

**Instructional Materials for Advanced
Placement Human Geography**



*Hosted by:
Alexander B. Murphy, Ph.D.*



AMBROSE
VIDEO

Advanced Placement Human Geography Instructor's Guide

A nine-part professional development *guide for Advanced Placement Human Geography* teachers in grades 9 through 12

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To accompany:

Human Geography: Making Sense of Planet Earth

A new series from Ambrose Video Publishing

Series produced by:

Centre Communications Video, Inc.

For

Ambrose Video Publishing, Inc.

William V. Ambrose, Executive Producer

Published and Distributed by:

Ambrose Video Publishing (<http://www.ambrosevideo.com>)

145 West 45th Street, Suite 1115

New York, NY 10036

1-800-526-4663; Fax: 1-212-768-9282

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Table of Contents

Title Page

Copyright Page

Introductory Materials

- Introducing *Human Geography: Making Sense of Planet Earth*
- Preparing students for the AP Human Geography College Board exam

Integrating AP Human Geography Units and related Video Programs and Teaching Materials

BONUS INTRODUCTORY PRE-UNIT: *Portraying the Earth*

UNIT I: Geography: Its Nature and Perspectives

Video Program 1 (on Disc 1): *The Tools of Human Geography*

Lesson Plans and Video Viewing Guide

UNIT II: Population

Video Program 2 (on Disc 1): *Population Distribution and Migration*

Lesson Plans and Video Viewing Guide

UNIT III: Cultural Patterns and Processes.

Video Program 3 (on Disc 2): *Understanding Human Culture*

Lesson Plans and Video Viewing Guide

UNIT IV: Political Organization of Space

Video Program 4 (Disc 2): *Political Boundaries*

Lesson Plans and Video Viewing Guide

UNIT V: Agriculture and Rural Land Use

Video Program 5 (Disc 3): *Agriculture and Rural Land Use*

Lesson Plans and Video Viewing Guide

UNIT VI: Industrialization and Economic Development

Video Program 6 (on Disc 3): *Industrialization and Economic Development*

Lesson Plans and Video Viewing Guide

UNIT VII: Cities and Urban Land Use

Video Program 7 (on Disc 3): *Cities and Urban Land Use*

Lesson Plans and Video Viewing Guide

BONUS REVIEW and SYNTHESIS UNIT: *Confronting Future Challenges*

Video Program 8 (on Disc 3): *Confronting Future Challenges*

Lesson Plans and Video Viewing Guide

Other Related Resources for AP Human Geography

Introducing *Human Geography: Making Sense of Planet Earth*

Welcome! *Human Geography: Making Sense of Planet Earth* is a nine-part video series moderated by **Dr. Alexander Murphy**, Chair of the College Board's original Advanced Placement Human Geography Development Committee. Each of these video 'programs' provide solid geography content, detailed presentations on key geographic skills, and solid inspiration for AP Human Geography teachers and students. Video programs focus on almost exactly the same topics and issues in Human Geography as does the College Board-approved AP course. Individual video episodes may be used to illustrate a key geographic case study, issue, skill, or concept – or all of the videos can be shown as a whole to amplify themes and concepts covered in assigned readings, lectures, and homework assignments in AP Human Geography classes.

Along with this *Teaching Guide* designed especially to meet the needs of AP Human Geography teachers, a *Human Geography Educators Guide* is also available from Ambrose Video (for teachers who may wish to integrate videos from the series into their other geography classes or other courses). As a bonus for AP teachers, however, the specially packaged AP Human Geography version of this popular series begins with a pre-Unit I video that provides additional geography training for AP students. The following list provides evidence of the close correlation between topics covered in Units specified for the AP Human Geography course, Ambrose videos, and specific *National Geography Standards*:

- APHG Topic I: Geography: Its Nature and Perspectives (National Geography Standards # 1, 2, 3)
- Video Program 1: The Tools of Geography (National Geography Standards # 1, 2, 3)
- APHG Topic II: Population (National Geography Standard # 9)
- Video program 2: Population Distribution and Migration (National Geography Standard # 9)
- APHG Topic III: Cultural Patterns and Processes (National Geography Standard # 10)
- Video Program 3: Understanding Human Culture (National Geography Standard # 10)
- APHG Topic IV: Political Organization of Space (National Geography Standard # 13)
- Video Program 4: Political Boundaries (National geography Standard # 13)
- APHG Topic V: Agriculture and Rural Land Use (National Geography Standard s #14, 16)
- Video Program 5: Agriculture and Rural Land Use (National Geography Standards # 14, 16)
- APHG Topic VI: Industrialization and Economic Development (National Geography Standards # 11, 16)
- Video Program 6: Industrialization and Economic Development (National Geography Standards # 11, 16)
- APHG Topic VII: Cities and Urban Land Use (National Geography Standard # 12)
- Video Program 7: Cities and Urban Land Use (National Geography Standard # 12)

The Standards-based videos listed above discuss the full range of topics covered in AP Human Geography using spectacular photography and lively, well-informed interviews with internationally known geographers. Throughout the series, Professor Murphy's expert guidance provides regular summaries of key points and concepts all along the way.

Preparing Students for the AP Human Geography College Board Exam

The Advanced Placement Program at the College Board includes a course and an exam in Advanced Placement Human Geography for qualified students who wish to complete a secondary school equivalent to a college level course in Introductory Human Geography. To be allowed to take the College Board APHG exam offered every spring, students must complete at least one semester of academic work in a college-level Advanced Placement Human Geography preparation course.

Purpose of the AP Human Geography course

The primary purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. Topics studied in AP Human Geography correlate with these five college-level goals and also with the content, skills, and perspectives spelled out in *Geography for Life: The National Geography Standards* (2012, 1994).

Structure of the AP Human Geography exam

The AP Human Geography exam is approximately 2 hours and 15 minutes in length and includes both a 60-minute multiple-choice section and a 75-minute free-response section. Each section accounts for half of the student's AP exam score. The following AP Human Geography content is assessed on the College Board exam's multiple choice questions based on the percentage shown on the table below:

Table I: AP Human Geography content assessed on the College Board Exam

<u>Unit Topics</u>	<u>Percent of Questions on Exam</u>
I. Geography: Its Nature and Perspectives	5-10%
II. Population	13-17%
III. Cultural Patterns and Processes	13-17%
IV. Political Organization of Space	13-17%
V. Agriculture and Rural Land Use	13-17%
VI. Industrialization and Economic Land Use	13-17%
VII. Cities and Urban Land Use	13-17%

For further information about the College Board's AP Human Geography exam, see their *Human Geography Course Description* booklet available in full at <http://apcentral.collegeboard.com>. AP Human Geography teachers can also access additional information about AP exam questions and scoring guidelines, articles, and a searchable "Institutes and Workshops" data base at apcentral.collegeboard.com. Sample course syllabi, teaching tips, and other course materials may be found at [apcentral.collegeboard.com/course homepages](http://apcentral.collegeboard.com/course%20homepages).

Bonus Introductory Video

Portraying the Earth

This bonus video program provides an introductory look at the history of cartography and discusses other important skills used by geographers such as mapping, remote sensing, and Geographic Information Systems (GIS). Following a historical overview of the principles that form the foundation of geographic analysis, this first video discusses the importance of scale in geography, the origins of the subfield of Physical Geography as compared to Human Geography, and a variety of other issues related to the AP Human Geography content outline.

An understanding of key geographic skills will help provide AP Geography students with an understanding of the tools and techniques that are of greatest importance in geographic analyses. According to the *National Geography Standards* (2012, 95), mastering key skills are central to geography's distinctive approach to understanding Earth's physical and human patterns and processes. Geographic skills are used to make decisions that are important in our everyday lives such as where to rent or buy a home; where to get a job; how to get to work or to a friend's house; and where to shop, vacation, or go to school. All of these important decisions involve the ability to acquire, arrange, and use geographic information.

An awareness of the importance of being able to use basic geographic skills such as mapping and spatial analysis as presented on this first introductory video provide AP Human Geography students with the background they need to understand the concepts discussed in subsequent units of the AP Geography course. Viewing and discussing the contents of this bonus video also will help students become increasingly more aware of the importance of other related geographic skills such as those listed below that are specified in the *National Geography Standards*:

Table II: Key Geographic Skills according to the National Geography Standards

- Asking geographic questions.
- Acquiring geographic information.
- Organizing geographic information.
- Analyzing geographic information.
- Answering geographic questions.

Since the use of all different kinds of geospatial technologies, (such as cell phones, laptops, and GPS units), to solve spatial problems is “second nature” for most high school students today, information discussed in this bonus introductory video will go a long way toward building the content, confidence, and inspiration that many will need before plunging into the first unit of their Advanced Placement Human Geography class summarized on the following page.

AP Human Geography Units, Ambrose Videos, and related Teaching Materials

UNIT I: GEOGRAPHY: ITS NATURE AND PERSPECTIVES

Unit I Summary

This first unit of the AP Human Geography course traces the historical evolution of the field of geography from its origins as an academic discipline in nineteenth century Europe up to the present day. Basic concepts such as location, space, place, scale, and pattern are presented in this foundational AP Human Geography unit for students to reflect on, discuss, apply, and understand. These and other core geographic concepts are basic to understanding all of the other topics and issues presented in subsequent units in the AP Human Geography course. One of the most significant results of the study of Unit I is encouraging students to become more aware of the relevance of academic geography as a problem-solving discipline that can be used to resolve issues in their everyday lives as well as challenges facing the planet.

Video Program 1(on Disc 1): *The Tools of Human Geography*

Program 1 Summary

This video program provides a “perfect fit” for illustrating and amplifying the geographic themes, concepts, and skills emphasized in Unit I of the AP Human Geography Content outline summarized above. Case studies presented in this first program in the Human Geography series range from discussions of (1) key geographic approaches such as use of the spatial perspective to understand local to global interconnections; (2) the importance of understanding why one of human geography’s most important contributions is its focus on scale; and that (3) the identification and use of regions and regionalizing Earth/s surface is a useful way of dividing up the world useful to both Physical and Human geographers.

Chapters/topics featured on this Program

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

UNIT I Teaching Materials

Lesson Plan 1: “The Basics of Human Geography”

To accompany Video Program 1: *The Tools of Human Geography*

Grade level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic - *Geography: Its Nature and Perspectives* and video Program 1. To help introduce the topic, students will view Program 1: *The Tools of Human Geography*, on Disc 1 of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth*. While viewing the program, students will take notes on the attached Cornell note guide focusing on the main ideas of the Human Geography discipline. Basic comprehension questions and critical thinking questions are included for each chapter of the program. Students should be given time at the end of each chapter to complete the critical thinking questions. After the program is complete, class discussion will follow to check understanding.

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic of *Geography: Its Nature and Perspectives*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 1.

I. Geography: Its Nature and Perspectives

- A. Geography as a field of inquiry
- B. Evolution of key geographical concepts and models associated with notable geographers
- C. Key concepts underlying the geographical perspective: location, space, place, scale, pattern, regionalization and globalization
- D. Key geographical skills
 - 1. How to use and think about maps and spatial data
 - 2. How to recognize and interpret at different scales the relationships among patterns and processes
 - 3. How to define regions and evaluate the regionalization process
- E. Sources of geographical ideas and data: the field, census data, and satellite imagery

Time Needed: One 55 minute class period

Materials Needed:

- Ambrose Video - Program 1: *The Tools of Human Geography*
- Program 1 Student Video Guide
- Venn Diagram

National Geography Standards:

The World in Spatial Term

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Places and Regions

6. How culture and experience influence people's perceptions of places and regions

Starting the Lesson:

Students will begin class with a Think-Pair-Share activity by completing a Venn Diagram addressing the following question to begin students thinking about this class' topic. **How does physical geography compare to human geography?** Students will answer this question with their neighbor then these small groups will join larger groups and share their responses and add to their original responses based on their discussion. Teacher will walk to all groups and prompt discussions to help aid students' definitions.

The Lesson:

Pass out the student video guide and watch Program 1: *The Tools of Human Geography*.

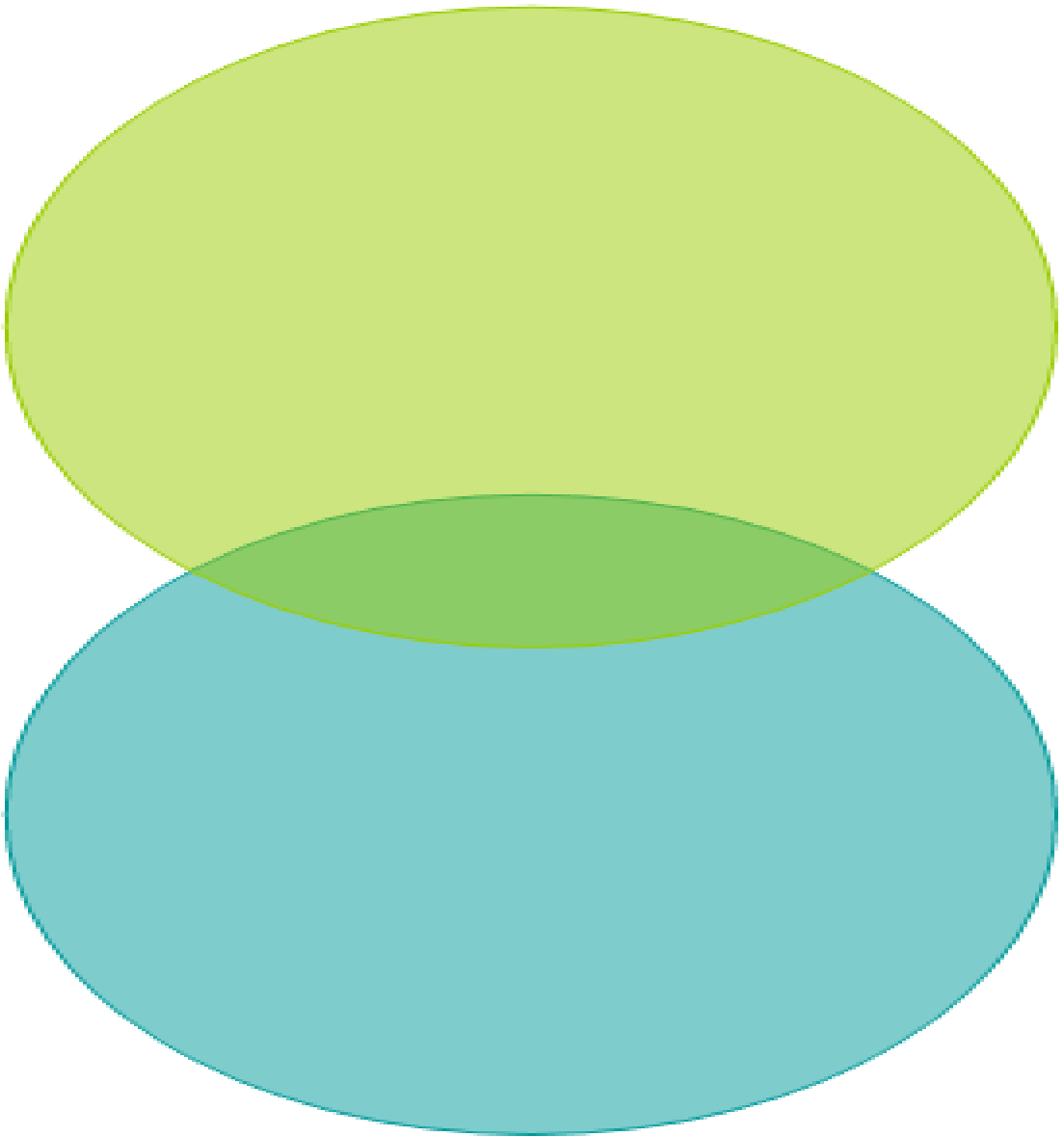
Note to Instructor: While watching the video, make sure to stop after each chapter to give students enough time to respond to their critical thinking questions on their guide. The video guide is organized to follow the chapters of the program, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. Program 1 lasts 28 minutes.

Ending the Lesson:

The lesson will end with a class discussion summarizing the video program clarifying students' questions. Review each program chapter's critical thinking questions.

Instructor Reflection:

Physical
Geography



Human
Geography

Lesson Plan 2 – “Key Themes in Human Geography”

To accompany Video Program 1: *The Tools of Human Geography*

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic - *Geography: Its Nature and Perspectives*. The goal of this lesson is for APHG students to learn about key themes in human geography, a cornerstone to this topic. To help understand this topic, scenes from Program 1, *The Tools of Human Geography*, a key part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth* will be shown. Throughout the lesson, students will learn about two elements from the College Board outline including regions and fieldwork by completing hands-on activities and class discussion in addition to viewing the two video segments.

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic - *Geography: Its Nature and Perspectives*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 1.

I. Geography: Its Nature and Perspectives

- A. Geography as a field of inquiry
- B. Evolution of key geographical concepts and models associated with notable geographers
- C. Key concepts underlying the geographical perspective: location, space, place, scale, pattern, regionalization and globalization
- D. Key geographical skills
 - 1. How to use and think about maps and spatial data
 - 2. ~~How to understand and interpret the implications of associations among phenomena in places~~
 - 3. How to recognize and interpret at different scales the relationships among patterns and processes
 - 4. How to define regions and evaluate the regionalization process
 - 5. ~~How to characterize and analyze changing interconnections among places~~
- E. ~~Geographic technologies, such as GIS, remote sensing, and GPS~~
- F. Sources of geographical ideas and data: the field, census data, and satellite imagery

Time Needed: One 55 minute class period

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 1: *The Tools of Human Geography* Chapters 4 and 5
- DeBow’s and Zelinsky’s vernacular maps.
- Vernacular Region Activity with U.S. map of labeled states
- Colored pencils
- 5 Themes of Geography at School Activity

National Geography Standards:

The World in Spatial Terms

- 1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Places and Regions

6. How culture and experience influence people's perceptions of places and regions

Starting the Lesson:

1. Intro: To introduce the topic of the five themes of geography, students will complete an activity to learn about vernacular regions.
2. Class Discussion: Ask students to define their own region, "Which states belong to the _____ region" to see how many definitions they develop. Ask students why they are not able to come to a consensus.
3. Activity: Independently, students will use a blank map of the U.S. states to identify five main geographic regions of the United States using different colors.
 - a. Note to instructor: It will be ideal to locate a map using state abbreviations to help students.
 - b. Students will use colored pencils to identify, label, and create a key for the following regions of the United States: Northeast, Southeast, Southwest, West and Midwest.
4. Small Group Discussion- After students have finished, they will share their maps in small groups and trace the outlines of their peers' definitions of the five regions using different colors.
5. Class Discussion: Continue activity with a discussion of why the maps all looked differently and discuss if there is really a correct answer.
6. Lecture: Compare two examples from the attached vernacular map of U.S. regions from DeBow and Zelinsky to show how this concept has changed over time. Then discuss geographer Zelinsky's twelve perceptual regions in the United States to help students more deeply understand this concept.

The Lesson:

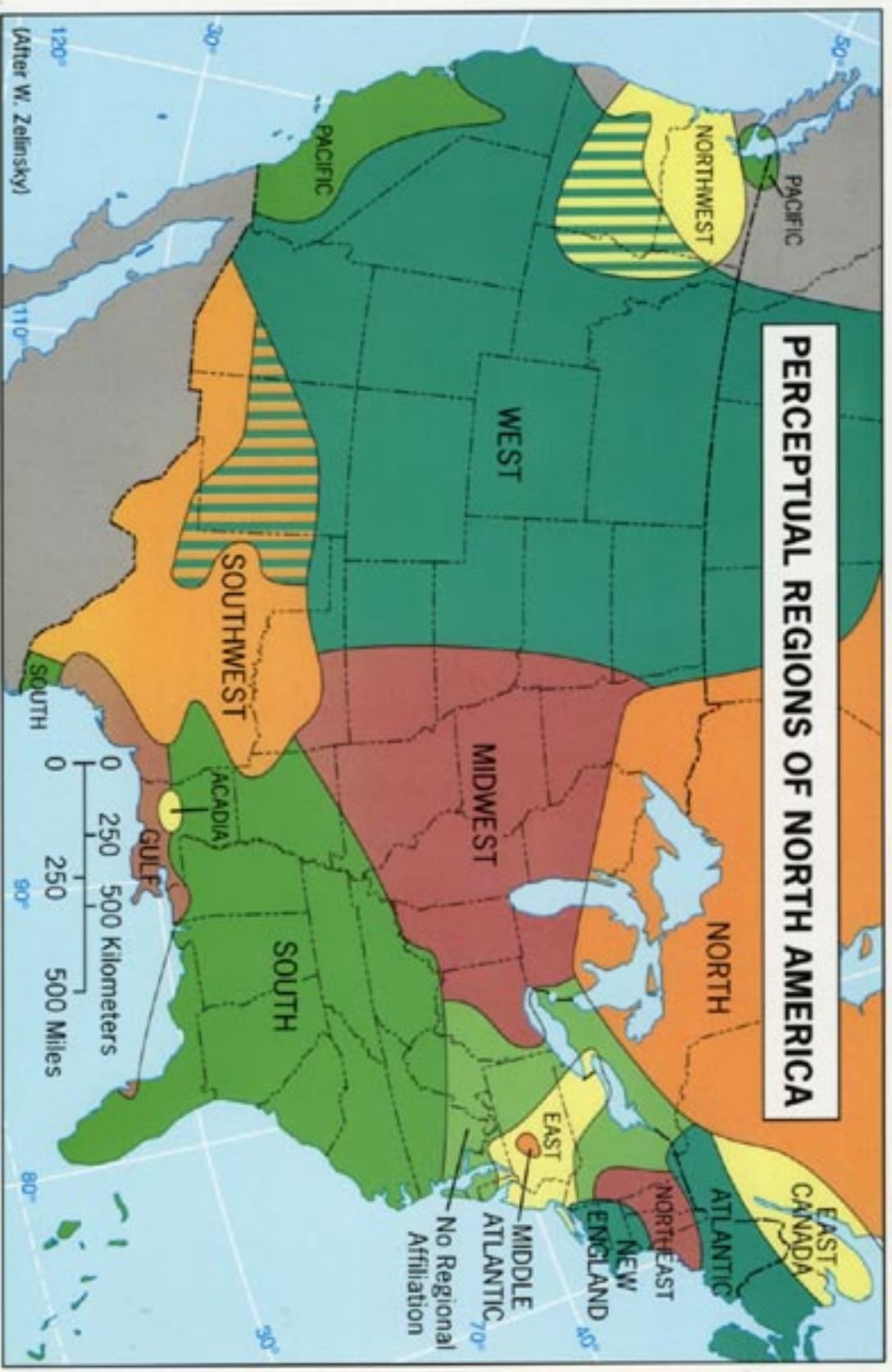
1. Activity: Have students define vernacular region on the 5 Themes of Geography at School activity sheet based on their introductory activity.
2. Video: View Program 1 *The Tools of Human Geography* Chapter 4 *Formal, Functional, and Vernacular Regions* (4:34 min)
 - a. While students are viewing this program, they will complete the portion of the 5 Themes of Geography at School activity sheet including the definitions for formal, functional and vernacular regions.
3. Class Discussion: Share the definitions of the three identifications as a class.
4. Activity: Summarize definitions for remaining themes on activity sheet and discuss when completed. Definitions could be found in students' textbooks or from a separate reading.
5. Video: View Program 1 *The Tools of Human Geography* Chapter 5 *Fieldwork in Human Geography* (3:58 min)
6. Class Discussion: Class will construct meaning from video to define fieldwork. The purpose of this program is for students to better understand their homework.

Note to the instructor: If time permits, class may begin their fieldwork homework during class and work in groups to collect observations to complete their activity.

Ending the Lesson:

The lesson will end with an explanation of the students' homework. Students will complete their 5 Themes of Geography at School activity sheet by learning from their definitions of the themes and applying them to their school through fieldwork. Students must identify an example from the school environment for as many themes and sub-themes as possible to check understanding of this concept of human geography.

Instructor Reflection:



Source: From W. Zelensky, "North America's Vernacular Regions," *Annals of the AAAG*, 1980, p. 14.

Projection 6

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Source:
Cao, Harlan. "Region Types." National Geographic. Last modified. April 26, 2010. http://www.jewishhistoricalsociety.com/wiki/wiki-read_article.php?articleid=89#

Five Themes of Geography at School

Theme of Geography	Definition	Example
<u>Location</u>		
Absolute Location		
Relative Location		
<u>Place</u>		
<u>Human/Environment Interaction</u>		
<u>Movement</u>		
<u>Regions</u>		
Vernacular Region		
Formal Region		
Functional Region		

Student Video Viewing Guide

To accompany video Program 1: *The Tools of Human Geography*

Directions: While viewing this episode, ask students to use the left side of the table to take abbreviated notes and the right side of the table to answer the corresponding questions for each section of the video. After the video, they will need to complete the summary section at the bottom to identify the overall goals of the program.

Notes	
1. What is Human Geography (11:30 min)	<p>a) What are the elements that compose Human Geography?</p> <p>b) Which American geographer helped develop Human Geography as a part of the geography discipline?</p> <p>c) Compare physical geography to human geography.</p> <p>d) Describe human population's relationship with the environment.</p> <p>Critical Thinking: Summarize the need for the discipline of human geography.</p>
2. Maps and Human Geography (2:45 min)	<p>a) How can human geographers use maps?</p> <p>Critical Thinking: Consider the human geography topic of language, agriculture and urbanization. Create examples of how maps can be used in one of the topics above. Describe how this map will look.</p>
3. The Importance of Scale in Human Geography (3:32 min)	<p>a) Explain why geographers work with various maps and data at different scales simultaneously.</p> <p>Critical Thinking: Illustrate how various scales can provide different information.</p>
Summary	

Notes	
4. Formal, Functional and Vernacular Regions (4:34 min)	<p>a) Define and provide an example for each of the following:</p> <p>i. Formal Region:</p> <p>ii. Functional Region:</p> <p>iii. Vernacular (Perceptual) Region:</p> <p>Critical Thinking: Explain why regions are important in the study of human geography?</p>
5. Fieldwork in Human Geography (3:58 min)	<p>a) Define fieldwork:</p> <p>Critical Thinking: Discuss why fieldwork is important to human geography's understanding of regions.</p>
Summary	

Student Video Viewing Guide

To accompany video Program 1: *The Tools of Human Geography* (Answer sheet)

Answers to each of the following questions are provided below.

Notes	
1. What is Human Geography (11:30 min)	<p>a) What are the elements that compose Human Geography? The spatial interaction of the human, social, political and physical environments.</p> <p>b) Which American geographer helped develop Human Geography as a part of the geography discipline? Carl Sauer</p> <p>c) Compare physical geography to human geography. Physical environment that is changing at different rates and different scales. Both unevenly distributed. Spatial distribution of physical features on Earth's surface.</p> <p>d) Describe human population's relationship with the environment. It is a reciprocal relationship. People are agents of change and shape and react to their environment, not just that their lives are dictated by the environment which they live.</p> <p>Critical Thinking: Summarize the need for the discipline of human geography. Other disciplines were missing the "where".</p>
2. Maps and Human Geography (2:45 min)	<p>a) How can human geographers use maps? To identify where people live, but also to identify the human processes patterns on the Earth's surface.</p> <p>Critical Thinking: Consider the human geography topic of language, agriculture and urbanization. Create examples of how maps can be used in one of the topics above. Describe how this map will look. Answers will vary.</p>
3. The Importance of Scale in Human Geography (3:32 min)	<p>a) Explain why geographers work with various maps and data at different scales simultaneously. See the detail and overall patterns of geographic phenomena.</p> <p>Critical Thinking: Illustrate how various scales can provide different information. Answers will vary.</p>
Summary	

Notes	
4. Formal, Functional and Vernacular Regions (4:34 min)	<p>a) Define and provide an example for each of the following:</p> <p>i. Formal Region: Distinct and formally identified area with set boundaries. EX: An atlas' political boundaries</p> <p>ii. Functional Region: Region has a central, unifying purpose. EX: European Union members</p> <p>iii. Vernacular (Perceptual) Region: Population's varying ideas of definitions of a specific region. No set definition for boundaries. EX: The West</p> <p>Critical Thinking: Explain why regions are important in the study of human geography? better understand geographic topics</p>
5. Fieldwork in Human Geography (3:58 min)	<p>a) Define fieldwork: Observation of a geographic element, analysis of the data, clear presentation of the results.</p> <p>Critical Thinking: Discuss why fieldwork is important to human geography's understanding of regions. Answers will vary.</p>
Summary	

UNIT II: POPULATION

Unit II Summary

The second unit of AP Human Geography covers basic concepts about population and migration such as birth rate, death rate, fertility, mortality, and immigration. Students are asked to understand the relevance of place-based differences in population growth and also to understand and apply other population-related issues, concepts, and theories. The Demographic Transition model, for example, is used to help explain differences in population growth in different parts of the world. Other key concepts in this unit of AP Human Geography such as scale are also discussed to make connections between population distribution and related cultural, economic, and political patterns.

Unit II also includes other important population and migration-related topics such as global refugee flows, immigration, internal migration, and residential mobility. Students may be asked to use their understanding of these and other terms such as Malthusian theory and the demographic transition to analyze the strengths and weaknesses of population policies in different places in the world and the impacts of these policies on population growth and decline.

Video Program 2 (on Disc 1) Summary: *Population Distribution and Migration*

The second video program in the *Human Geography: Making Sense of Planet Earth* series provides stunning visual support for the population-related topics covered in AP Human Geography Unit II. As in Unit I, there is a great deal of overlap between this video program and AP Human Geography content. This makes Ambrose video programs an ideal fit for integration into AP Human Geography teaching. As in the AP unit description above, for example, topics and theories such as Malthusian doctrine and the Demographic Transition model are discussed in this video program to help explain the rise and fall of human populations over time.

Migration is another important topic shared by the Unit II AP Human Geography content outline and the video entitled *Population Distribution and Migration*. Professor Murphy and the other geographers featured on this video discuss key concepts related to migration such as push-pull factors and the potential challenges of future population growth on Earth. The chapter outline below will help you choose which section of this program to use for each of your AP Human Geography Unit II lessons and lectures. All are excellent choices to be used to augment your population and migration lectures, class discussions, and assigned readings.

Chapters/topics featured on this video program:

- Introduction to Population Distribution
- The History of Population Growth
- The Demographic Transition Model
- Thomas Robert Malthus' Prediction
- The Three Types of Migration
- Push and Pull Factors of Migration
- Migratory Counter-flows
- Future Population Growth

UNIT II: Teaching Materials

Lesson Plan 1 – “Population Yesterday, Today and Tomorrow” To accompany Video Program 2: *Population Distribution and Migration*

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic - *Population*. To help introduce the topic, students will view Program 2: *Population Distribution and Migration* part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth*. While viewing the program, students will take notes on the attached Cornell note guide focusing on the main ideas of the Human Geography discipline. Basic comprehension questions and critical thinking questions are included for each chapter of the program. Students should be given time at the end of each chapter to complete the critical thinking questions. After the program is complete, class discussion will follow to check understanding.

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic of *Population*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 2.

II. Population

- A. Geographical analysis of population
 - 1. Density, distribution, and scale
 - 2. ~~Implications of various densities and distributions~~
 - 3. ~~Patterns of composition: age, sex, race, and ethnicity~~
 - 4. ~~Population and natural hazards: past, present, and future~~
- B. Population growth and decline over time and space
 - 1. Historical trends and projections for the future
 - 2. Theories of population growth, including the Demographic Transition Model
 - 3. ~~Patterns of fertility, mortality, and health~~
 - 4. ~~Regional variations of demographic transitions~~
 - 5. ~~Effects of population policies~~
- C. Population movement
 - 1. ~~Migration selectivity~~
 - 2. Major voluntary and involuntary migrations at different scales
 - 3. Theories of migration, including push and pull factors, human capital, and life course
 - 4. ~~International migration and refugees~~
 - 5. Socioeconomic consequences of migration

Time Needed: One 55 minute class period

Lesson Status: Developed

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 2: *Population Distribution and Migration*”
- Program 2 Student Video Guide

National Geography Standards:

Human Systems

9. The characteristics, distribution, and migration of human populations on Earth's surface

The Uses of Geography

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

Starting the Lesson:

Students will begin class with a short group warm-up activity that will transition into full class discussion for students to begin thinking about this class's topic. Each group will be assigned a different concept map. One map will be labeled Migration and one map will be labeled Population Distribution. Each group will need to identify as many concepts associated with their topic to complete their concept map as much as possible. Next, combine similar groups together to continue the discussion. Then, each topic (two large groups) presents their findings while the opposite group completes the corresponding (opposite) concept map.

The Lesson:

Pass out the student video guide and watch Program 2: *Population Distribution and Migration*.

Note to Instructor: While watching the video, make sure to stop after each chapter to give students enough time to respond to their critical thinking questions on their guide. The video guide is organized to follow the chapters of the program, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. Program 2 lasts 28 minutes.

Ending the Lesson:

The lesson will end with a class discussion summarizing the video program clarifying students' questions. Review each program chapter's critical thinking questions. Return to concept map and add information learned from the video as a class.

Instructor Reflection:

Lesson Plan 2 – “To Emigrate or Not to Emigrate?”

To accompany Video Program 2: *Population Distribution and Migration*

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic - *Population*. As a result of this lesson, students will learn about key elements of population, specifically types of migration and reasons for migration. To help understand this topic, scenes from Program 2: *Population Distribution and Migration* part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth* will be shown. In addition to viewing video segments, students will also learn about population and migration by completing interactive, hands-on activities and class discussion to analyze historic and current trends in settlement patterns.

Instructor Note: If iPads or computers are not available in the classroom, it will be necessary to take students to the school’s computer lab to complete this lesson.

Curriculum Connection: This lesson serves as an introduction to the AP Human Geography topic of *Population*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 2 of *Human Geography: Making Sense of Planet Earth*.

II. Population

- A. Geographical analysis of population
 - 1. Density, distribution, and scale
 - 2. ~~Implications of various densities and distributions~~
 - 3. ~~Patterns of composition: age, sex, race, and ethnicity~~
 - 4. ~~Population and natural hazards: past, present, and future~~
- B. Population growth and decline over time and space
 - 1. Historical trends and projections for the future
 - 2. Theories of population growth, including the Demographic Transition Model
 - 3. ~~Patterns of fertility, mortality, and health~~
 - 4. ~~Regional variations of demographic transitions~~
 - 5. ~~Effects of population policies~~
- C. Population movement
 - 1. ~~Migration selectivity~~
 - 2. Major voluntary and involuntary migrations at different scales
 - 3. Theories of migration, including push and pull factors, human capital, and life course
 - 4. ~~International migration and refugees~~
 - 5. Socioeconomic consequences of migration

Time Needed: One 55 minute class period

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 2: *Population Distribution and Migration*”
- iPads or computer lab
- Computer and projector- teacher use for bell ringer
- Population and Migration Note Guide
- U.S. Census Bureau- Migration activity

National Geography Standards:

Human Systems

9. The characteristics, distribution, and migration of human populations on Earth's surface

The Uses of Geography

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

Starting the Lesson:

1. View- Class will begin by viewing the YouTube video “7 billion” by National Geographic Magazine <http://www.youtube.com/watch?v=sc4HxPxNrZ0>
 - a. Show the video twice. The first time, students will watch the video. The second time through, students will complete the top portion, “What”/ “So What?” of their note guide.
2. Class Discussion- Students will each volunteer one key idea to a discussion of how this video relates to the day’s lesson.

The Lesson:

1. Video- View Program 2: *Population Distribution and Migration* Chapter 5 The Three Types of Migration (2:46 min)
 - a. While students are viewing this program, they will record the corresponding definitions from Chapter 5 on their note guide.
 - b. When complete, teacher will review definitions to make sure students have the same understanding.
2. Video- View Program 2 : *Population Distribution and Migration* Chapter 6 The Push and Pull Factors of Migration (4:00 min)
 - a. While students are viewing this program, they will record the corresponding definitions from Chapter 6 on their note guide.
 - b. When complete, teacher will review definitions to make sure students have the same understanding.
3. Class Discussion- Complete the note guide by developing ideas about push and pull factors into and within the United States.
4. Activity- Using computers, students will complete the U.S. Census Bureau- Migration activity independently. After students have clicked on each website link, they will answer questions based on their observations. When finished analyzing the images, students will summarize their findings in the conclusion section of the activity.

Ending the Lesson:

After the activity is complete, a class discussion will be held based on the following prompt to connect all elements of the lesson and predict future trends based on the students’ findings.

Prompt: Based on the trends shown in the Census Bureau images, what predictions can you make about future migration patterns in the United States. Also, will push and pull factors remain the same for American immigrants for years to come? What future ramifications may exist for the future of the Census based on your observations?

Resources:

“7 Billion.” *National Geographic Magazine*. December 27, 2010.
<http://www.youtube.com/watch?v=sc4HxPxNrZ0>

“Data Visualization Gallery.” U.S. Census Bureau, U.S. Department of Commerce. July 19, 2012 - January 31, 2013. <http://www.census.gov/dataviz/>

Unit II: Population and Migration

Note-taking Guide

During the second time viewing the “7 Billion” U-Tube video by *National Geographic Magazine*, complete the following chart with four key ideas or shocking pieces of information. When the video is completed and you have your four key ideas written in the “What?” column, then complete the “So What?” column addressing why that statistic or key idea is significant.

	What?	So What?
1.		
2.		
3.		
4.		

Lesson

Define the following identifications related to population and migration using the two video segments from *Human Geography: Making Sense of Planet Earth*.

1. Migration:
2. Immigration:
3. Cyclical Migration:
4. Periodic Migration:
5. Push Factors:
6. Pull Factors:

Brainstorm a list of push and pull factors for the following migration patterns and provide an example for each.

	Push Factors	Pull Factors
International Migration		
	Example:	Example:
Intraregional Migration		
	Example:	Example:
Interregional Migration		
	Example:	Example:

For Lesson 2 – UNIT II

U.S. Census Bureau- Migration - Document Based Inquiry

Directions: The purpose of this activity is to further your knowledge of migration and to visualize what settlement patterns look like in the United States throughout recent history. Click on each link to view each image, and then answer the corresponding questions keeping in mind the definitions and the video segments about migration.

Part 1: Population Change by Decade, 1910-2010

<http://www.census.gov/dataviz/visualizations/049/?intcmp=sldr5>

Years Shown: _____

1. Based on the data provided, what general conclusions can you draw regarding population shifts of the United States?
2. Identify one specific region and summarize the in-migration and out-migration patterns throughout this 100 year period.
3. What push-pull factors can you identify?
Push Factor: _____ Pull Factor: _____

Part 2: By the Grid: Population Shift to the West and South

<http://www.census.gov/dataviz/visualizations/024/>

Years Shown: _____

1. What does the 38° N parallel represent? _____ The 100° W. meridian?

2. What push-pull factors can you identify?
Push Factor: _____ Pull Factor: _____

Part 3: A Decade of State Population Change

<http://www.census.gov/dataviz/visualizations/043/>

Years Shown: _____

1. What general trends can you identify for western U.S. vs. eastern U.S. or northern U.S. vs. southern U.S.?
2. Select one state to analyze in greater detail. Summarize the population trend in this state from 2001-2012 and include examples. For example a description of Louisiana's migration trend would include information from 05-06 showed a large out-migration had occurred because of the effects of Hurricane Katrina.
3. What push-pull factors can you identify?
Push Factor: _____ Pull Factor: _____

Part 4: State-to-State Migration for States of 8 Million or More

<http://www.census.gov/dataviz/visualizations/028/>

Years Shown: _____

* Check “Complete State Labels” to turn on the individual state names.

1. Select one state to analyze in greater detail. What is the Net Domestic Migration of this state? _____ Explain what this means.
2. From which state is your chosen location experiencing the greatest net gain?
3. To which state is your chosen location experiencing the greatest net loss?
4. What push-pull factors can you identify?

Push Factor:

Pull Factor:

Part 5: Booming States

<http://www.census.gov/dataviz/visualizations/009/>

Years Shown: _____

1. Select a state other than the previous exercise. Summarize the migration trends for this state from 1790s-2000s.
2. What push-pull factors can you identify?

Push Factor:

Pull Factor:

Conclusion

What conclusions can you make regarding these five Census Bureau images and intraregional and interregional migration patterns in the United States? Cite specific examples from the images to support your answer.

UNIT III: CULTURAL PATTERNS AND PROCESSES

Unit III Summary

This third unit in AP Human Geography focuses on the importance of culture and cultural systems at different scales. Diffusion is also a key concept included in this AP Human Geography unit to help students understand how cultural traits (e.g. languages, religions, customs, agricultural practices), diffuse through time and space to new locations and adapt to new places through the process of globalization. Different types of diffusion such as contagious expansion diffusion, relocation diffusion, and hierarchical diffusion are presented to help students understand how cultural innovations and traits relocate to new locations over time.

Other key geographical concepts discussed in this unit include cultural landscapes, human-environment relationships, and folk versus popular cultures. Unit III also explores the global diffusion of religions and languages and cultural differences across the world according to gender, race, and ethnicity. For example, students learn to distinguish between comparative concepts such as (1) universalizing religions and folk religions; and (2) folk architecture and contemporary architecture. Understanding the components and regional variations of cultural patterns and processes is one of the central themes of Human Geography.

Video Program 3 (on Disc 1): *Understanding Human Culture*

Program Summary

The third video program in the *Human Geography: Making Sense of Planet Earth* series covers almost all of the same concepts, topics, and issues discussed in Unit III above. All are central to understanding the important role of culture in shaping distinctive regions and places on Earth. As discussed in the third unit of AP Human Geography summarized above, key concepts in this video include diffusion, folk (or local) culture, popular culture, languages, religions, and cultural landscapes. The importance of race, ethnicity, and identity from a geographical perspective are also discussed on this timely video.

A number of dramatic case studies are included on this video to help illustrate these and other cultural concepts including descriptions of some of the cultural systems and expressions that define the Amish, Cajun, and Cherokee Indians in the United States. These and other case studies portrayed on this video help expand on and illustrates the geographic concepts and skills included in AP Human Geography Unit III summarized above.

Chapters/topics featured on this DVD Program:

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

UNIT II: Teaching Materials

Lesson Plan 1 – “Cultural Patterns and Processes”

To accompany Video Program 3: *Understanding Human Culture*

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic - *Cultural Patterns and Processes*. To help introduce the topic, students will view Program 3 *Understanding Human Culture*, part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth*. While viewing the program, students will take notes on the attached Cornell note guide focusing on the main ideas of the Human Geography discipline. Basic comprehension questions and critical thinking questions are included for each chapter of the program. Students should have additional time at the end of each chapter to complete the critical thinking questions. After the program is complete, class discussion will follow to check understanding.

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic of *Cultural Patterns and Processes*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 3.

III. Cultural Patterns and Processes

- A. Concepts of culture
 - 1. ~~Traits~~
 - 2. Diffusion
 - 3. ~~Acculturation, assimilation, and globalization~~
 - 4. Cultural regions
- B. Cultural differences
 - 1. Language
 - 2. Religion
 - 3. Ethnicity
 - 4. ~~Gender~~
 - 5. Popular and folk culture
- C. Cultural landscapes and cultural identity
 - 1. ~~Values and preferences~~
 - 2. Symbolic landscapes and sense of place
 - 3. ~~Environmental impact of cultural attitudes and practices~~

Time Needed: One 55 minute class period

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 3: *Understanding Human Culture*”
- Program 3 Student Video Guide
- “My Culture!” handout
- Markers/colored pencils

National Geography Standards:**Places and Regions**

- 4. The physical and human characteristics of places
- 6. How culture and experience influence people's perceptions of places and regions

Human Systems

- 10. The characteristics, distribution, and complexity of Earth's cultural mosaics

Environment and Society

- 15. How physical systems affect human systems

Starting the Lesson:

Students will begin class with a short independent warm-up activity that will transition into small group discussions for students to begin thinking about this class' topic. Each student will receive a "My Culture!" handout and markers to draw a visual representation of what culture means to them. After 7-8 minutes, students will share with a neighbor their images to describe their culture.

The Lesson:

Pass out the student video guide and watch Program 3 *Understanding Human Culture*

Note to Instructor: While watching the video, make sure to stop after each chapter to give students enough time to respond to their critical thinking questions on their guide. The video guide is organized to follow the chapters of the program, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. Program 3 lasts 28 minutes.

Ending the Lesson:

The lesson will end with a class discussion summarizing the video program clarifying students' questions. Review each program chapter's critical thinking questions. Return to "My Culture!" activity and add additional ideas gained from the video.

Instructor Reflection:

My Culture!

Lesson Plan 2 – “What’s Your Geo-IQ? Folk vs. Popular Culture” **To accompany Video Program 3: *Understanding Human Culture***

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic - *Cultural Patterns and Processes*. As a result of this lesson, students will learn about two key elements from this topic; folk and popular culture. To help students better understand this topic, scenes from Program 3 *Understanding Human Culture*, part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth* will be shown. In addition to viewing video segments, students will also learn about culture by completing group interactive online activities and class discussion to analyze the impact popular culture has on the high school-aged population. The culminating fieldwork activity for this lesson will be the creation of a survey to gauge this impact including an analysis of the results to help class prepare for a school-wide geography awareness campaign during National Geographic’s “Geography Awareness Week.”

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic of *Cultural Patterns and Processes*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed.

III. Cultural Patterns and Processes

- A. Concepts of culture
 - 1. ~~Traits~~
 - 2. Diffusion
 - 3. ~~Acculturation, assimilation, and globalization~~
 - 4. Cultural regions
- B. Cultural differences
 - 1. Language
 - 2. Religion
 - 3. Ethnicity
 - 4. ~~Gender~~
 - 5. Popular and folk culture
- C. Cultural landscapes and cultural identity
 - 1. ~~Values and preferences~~
 - 2. Symbolic landscapes and sense of place
 - 3. ~~Environmental impact of cultural attitudes and practices~~

Time Needed: Three-four 55 minute class periods

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 3: *Understanding Human Culture*
- 2006 National Geographic-Roper Survey of Geographic Literacy.
- QR Code scanner application
- QR Code creator website
- Online survey generator
- Computer and projector

National Geography Standards:

Places and Regions

4. The physical and human characteristics of places
7. How culture and experience influence people's perceptions of places and regions

Human Systems

11. The characteristics, distribution, and complexity of Earth's cultural mosaics

Environment and Society

16. How physical systems affect human systems

Starting the Lesson:

1. Activity- Students will begin class with an online quiz assessing geographic knowledge. The quiz was published in 2006 in conjunction with Geography Awareness Week by National Geographic. Project the quiz website and have students work in pre-assigned groups to answer each of the 20 questions, competing against other groups if you wish. Feedback is provided with explanations and response statistics after each question. Some of the popular culture questions are out of date, although the point is still made that students know more about popular culture than about other topics in geography.
 - a. Discuss the following after the quiz.
 1. Ask the students about the types of questions involved in the survey.
 2. What did they believe to be National Geographic's purpose for creating the quiz?
 3. Why is it important for Americans to have a working knowledge of their world?
 4. Transition discussion into video about popular and folk cultures.

2006 National Geographic-Roper Survey of Geographic Literacy. National Geographic Society. Last modified 2006. http://www.nationalgeographic.com/roper2006/question_01.html

The Lesson:

1. Video- Show Program 3: *Understanding Human Culture* Chapter 1 Culture and Place (3:59 min), Chapter 2 Folk Culture (4:33 min) and Chapter 3 Popular Culture (0:51 sec). These segments will help students better understand the content for the activity during the lesson.
 - a. During the video, students will write as many examples of popular culture and folk culture as possible from the video.
 - b. After the video, have students share ideas from video with pre-assigned groups then they will brainstorm more examples to add to their lists.
2. Activity- Introduce survey fieldwork activity. Students will work in their groups to develop a survey with questions about popular and folk cultures to assess how much their peers know about each topic.
 - a. Groups will create questions related to popular and folk culture. Questions will come from ideas gathered from the video and bell ringer activity quiz. Results will be similar to the bell ringer quiz showing more participants with a greater understanding of popular culture than other geographic topics.
 - b. When questions are created, students will use a free online survey generator, for example Survey Monkey®, to write their quiz and help tabulate results.
 - c. The website address will then be turned into a QR code for students to quickly have their peers scan the code with their phones (will need a QR code scanner application) for them to take the quiz.
 1. Use a free QR code creator online to create the coded image

3. If students do not have access to phones, students may pass out slips of paper with web address or hard copies of survey may also be distributed.
(Students should have their friends take the quiz as quickly as possible to have adequate time to analyze the results.)

Ending the Lesson:

After the results have been tabulated, each group will present their survey for the class to also take. Then the tabulated results will be presented with analysis from each group. A full class discussion will conclude the activity of what the findings show and what should be done in preparation of a school-wide geography awareness campaign during National Geographic's Geography Awareness Week.

Instructor Reflection:**Resources:**

2006 National Geographic-Roper Survey of Geographic Literacy. National Geographic. Last modified 2006. http://www.nationalgeographic.com/roper2006/question_01.html

Student Culture Survey: Folk Culture vs. Popular Culture Fieldwork Activity

Purpose: using a student-created survey, students will be able to assess students' knowledge about popular and folk cultures. They can then use their findings to prepare for a school-wide geography awareness campaign during National Geographic's annual "Geography Awareness Week."

APHG Culture Survey Requirements

- ☐ 1 survey/group using an online survey generator based on the ideas gathered from the Ambrose video and bell ringer National Geographic geo-literacy quiz.
- ☐ Title
- ☐ Directions including purpose
- ☐ 10 Questions
 - ☐ Gender
 - ☐ Grade/Year
 - ☐ 4 questions folk culture
 - ☐ 4 questions popular culture (mix together these 8 questions)
 - ☐ End of survey describes goal for your results
- ☐ Turn survey website into a QR code for students to take easily
- ☐ Once survey is closed, tabulate results and create a brief class presentation to share the findings of your research.
 - ☐ Focus on what your research shows about your peers' knowledge of geography
- ☐ Each person in class must ask 25 students to respond to the survey. Ask them during lunch or study hall, please do not interrupt classes.
- ☐ Students must complete the survey ASAP to allow enough time for you to analyze your data.

Survey Writing Tips

- ☐ Concise questions
- ☐ Non-biased
- ☐ Specific
- ☐ Organized
- ☐ Test the survey first
- ☐ Interesting questions

Student Viewing Guide

To accompany Video Program 3: *Understanding Human Culture*

Directions: While you are viewing this episode, you will use the left side of the table to take abbreviated notes and the right side of the table to answer the corresponding questions for each section of the video. After the video, complete the summary section at the bottom to identify the overall idea.

Notes	
1. Culture and Place (3:59 min)	a) Is place more significant to local or popular culture? b) Explain the connection local cultures have to place. Critical Thinking: Assess how you define your sense of place?
2. Folk Culture (4:33 min)	a) Identify examples of folk cultures in America today. b) As globalization continues to threaten the existence of folk cultures, what is the general reaction of these cultures? Their bond to their culture intensifies c) Explain what evidence exists of the continued success of folk cultures. The number of languages that still exist today. Critical Thinking: Evaluate whether folk cultures will ever be overcome by globalization? Answers will vary.
3. Popular Culture (0:51 sec)	a) List examples of popular culture. Critical Thinking: Popular culture helps people have a sense of belonging to the world. Explain what popular culture elements help you belong to your world.
4. What is Diffusion (1:40 min)	a) Assess whether culture is stationary or fluid. b) Define diffusion: Critical Thinking: Describe the diffusion of a popular culture element in your life. For example, the diffusion of your favorite band.
Summary	

5. The Three Types of Diffusion (1:32 min)	<p>a) Provide and explain an example for contagious diffusion.</p> <p>b) Provide and explain an example for hierarchical diffusion.</p> <p>c) Provide and explain an example for stimulus diffusion.</p> <p>Critical Thinking: Consider your chosen example for the previous segment. Which type of diffusion did that popular culture element follow?</p>
6. Language (4:11 min)	<p>a) Explain how the English language came to be spoken by such a large percentage of the global population.</p> <p>b) Identify how the Dravidian and Niger-Congo language families compare in coverage area despite being spoken by the same percentage of the global population.</p> <p>Critical Thinking: Assess the reason why languages become extinct?</p>
7. Religion (4:55 min)	<p>a) How did Roman Catholicism spread to the New World?</p> <p>b) Generalize how religions shape cultures.</p> <p>c) How is religion reflected in space?</p> <p>Critical Thinking: Identify sacred spaces in your community.</p>
8. Race and Ethnicity (4:33 min)	<p>a) Describe what dictates the definition of race?</p> <p>b) At what point did division of race begin in America history?</p> <p>Critical Thinking: Predict and explain whether the world will ever recognize a single race, the human race.</p>
Summary	

Student Viewing Guide

To accompany Video Program 3: *Understanding Human Culture*

(Answer sheet)

Answers are provided below. As indicated for several responses, student responses may vary for certain questions.

Notes	
1. Culture and Place (3:59 min)	<p>a) Is place more significant to local or popular culture? Local culture</p> <p>b) Explain the connection local cultures have to place. Their culture is defined by their environment</p> <p>Critical Thinking: Assess how you define your sense of place? Answers will vary.</p>
2. Folk Culture (4:33 min)	<p>a) Identify examples of folk cultures in America today. Amish, Cajun, Immigrant concentrations</p> <p>b) As globalization continues to threaten the existence of folk cultures, what is the general reaction of these cultures? Their bond to their culture intensifies</p> <p>c) Explain what evidence exists of the continued success of folk cultures. The number of languages that still exist today.</p> <p>Critical Thinking: Evaluate whether folk cultures will ever be overcome by globalization? Answers will vary.</p>
3. Popular Culture (0:51 sec)	<p>a) List examples of popular culture. Krispy Kreme, Dunkin Donuts, E! News, CNN</p> <p>Critical Thinking: Popular culture helps people have a sense of belonging to the world. Explain what popular culture elements help you belong to your world. Answers will vary.</p>
4. What is Diffusion (1:40 min)	<p>a) Assess whether culture is stationary or fluid. Cultures are consistently changing across time and space.</p> <p>b) Define diffusion: Spread of idea or phenomenon over space</p> <p>Critical Thinking: Describe the diffusion of a popular culture element in your life (for example, the diffusion of your favorite band). Answers will vary.</p>
Summary	

Notes	
5. The Three Types of Diffusion (1:32 min)	<p>a) Provide and explain an example for contagious diffusion. Illness - person to person contact</p> <p>b) Provide and explain an example for hierarchical diffusion. Most important places adopt new cultural trait then surrounding places follow the same pattern.</p> <p>c) Provide and explain an example for stimulus diffusion. Outside idea is introduced to a new area and people take, adopt, and modify that idea into something new.</p> <p>Critical Thinking: Consider your chosen example for the previous segment. Which type of diffusion did that popular culture element follow? Answers will vary.</p>
6. Language (4:11 min)	<p>a) Explain how the English language came to be spoken by such a large percentage of the global population. British Colonization and England was the birth place of the Industrial Revolution.</p> <p>b) Identify how the Dravidian and Niger-Congo language families compare in coverage area despite being spoken by the same percentage of the global population. The Dravidian area is very small and compact versus the Niger-Congo area which is very expansive.</p> <p>Critical Thinking: Assess the reason why languages become extinct? Wars, colonization, assimilation, disease</p>
Summary	

UNIT IV: POLITICAL ORGANIZATION OF SPACE

AP Human Geography Unit IV Summary

This important unit of the AP Human Geography course introduces students to the significance of the political organization of territory on Earth. The overarching goal of Unit IV is to help students understand the regional and global impacts of these political divisions (such as states or countries), on Earth in the past, present, and future. Central to making sense of the key themes and issues included in Unit IV is helping students understand how Earth's political divisions affect a wide range of other activities and understandings.

Unit IV also focuses attention on the significance of changes in political boundaries over time and the outcome of the patterns and activities of large-scale regional organizations such as NATO, the European Union, and NAFTA. Finally, and not of least importance, at the scale below the state, Unit IV also examines the impacts of the shifting boundaries that define electoral districts, municipal boundaries, and ethnic territories.

Video Program 4 (on Disc 2): *Political Boundaries*

Video Program Summary

This “Political Boundaries” video in the *Human Geography* series provides extraordinary visual evidence of the importance of the political geography topics summarized above. The origin, diffusion, and political power of some of Earth's ancient empires such as territory dominated by Alexander the Great, Rome, the Mongols, and the Incas and Aztecs, are discussed by a number of geographer-experts to help students understand the evolution of political power and territory in history and in today's ever-changing world.

Other important concepts in political geography such as nation and state also are discussed in this video as are political boundaries at a variety of scales. As Earth continues to face ever more challenging socio-economic and environmental issues in the 21st century, as this provocative video and Unit IV of AP Human Geography remind us, it will remain essential for students to understand the powerful nuances of political power and the “politics of place” now and for many years to come.

Chapters featured on this Program:

1. Political Power and Territory
2. The Rise of Ancient Empires
3. The Emergence of Nations
4. Political Boundaries Make their Appearance
5. The Territorial Evolution of the United States
6. Distinguishing between Nation and State

UNIT IV: Teaching Materials

Lesson Plan 1 – “Boundaries and Borders”

To accompany Video Program 4: *Political Boundaries*

Grade Level: 9-12

Lesson Summary: In this lesson, students will view a short video introducing the topic of political boundaries. While viewing, the students will complete a viewing guide covering the major topics in the video. The viewing guide contains a modified form of Cornell Notes and is intended to assist students with learning how to take notes during a video presentation. Upon completing the video, the students will complete an activity demonstrating understanding of the content of the film.

Curriculum Connection: This lesson is intended to be completed as an introduction to the Political Geography unit in an AP Human Geography course. After completing this lesson, students should be able to perform the following:

- A. Identify and explain the relationship between power and place;
- B. Identify several historical empires and explain how their leaders held and maintained power;
- C. Explain the emergence and development of nations and states;
- D. Explain the constant evolution of boundaries and describe how boundaries can affect people, economics, and the landscape;
- E. Distinguish between a nation and a state;
- F. Explain how the creation of new forms of geopolitical entities will reshape the world map.

Time Needed: One 55 minute class period

Materials Needed:

- “Human Geography: Making Sense of Planet Earth – Program 4: Political Boundaries” DVD
- “Political Boundaries” Student Viewing Guide

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 4.

APHG Topic Outline:

IV. Political Organization of Space. (strikethroughs are not covered in the video)

- A. Territorial dimensions of politics
 1. The concept of territoriality
 2. The nature and meaning of boundaries
 3. Influences of boundaries on identity, interaction, and exchange
 4. ~~Federal and unitary states~~
 5. Spatial relationships between political patterns and patterns of ethnicity, economy, and environment
- B. Evolution of the contemporary political pattern
 1. The nation-state concept
 2. Colonialism and imperialism
 3. ~~Democratization~~
- C. Changes and challenges to political–territorial arrangements

1. Changing nature of sovereignty
2. Fragmentation, unification, alliance
3. Supranationalism and devolution
4. ~~Electoral geography, including gerrymandering~~
5. ~~Terrorism~~

National Geography Standards:

The World in Spatial Term

3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Human Systems

13. How the forces of cooperation and conflict among people influence the division and control of Earth's surface.

The Uses of Geography

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

Starting the Lesson: ((10 minutes)

Guiding Question: What is the relationship between power and place?

Timed Writing - Begin the class by displaying the guiding question. Give students a minute or two to think about the question, and then have them write their answer. Encourage the students to write for the full 5 minutes, even if they are unsure of their answer. When time is up, they must stop writing. Ask one or two students to share their answers.

The Lesson: (40 minutes)

Handout the student viewing guide

Watch Program 4: "Political Boundaries" from the "Human Geography: Making Sense of Planet Earth" video Series

Note to Instructor: While watching the video, make sure to stop periodically (or as students ask) to give students enough time to complete their answers on the viewing guide. The viewing guide is designed to follow the chapter or scenes on the DVD, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. The video is only 28 minutes – time has been added to this section of the lesson to allow for stopping and starting.

Ending the Lesson: (5 minutes)

Closing activity: With the remaining class time (and for homework, as needed), have the students review their notes from the film. Have them clarify anything in their notes which they found confusing, label topics or main ideas, write questions, or add any additional information they would like to add in the left hand column. Finally, they should complete the summary section at the bottom by re-answering the guiding question.

Student Viewing Guide

To accompany Video Program 4: *Political Boundaries*

Directions: While you are viewing the video “Political Boundaries”, you will use the left hand side of the table to take notes – these are notes, so you can use abbreviations, bulleted lists, etc. After you have completed the video, use the right hand column to list main ideas, topics, questions, or other info you feel is necessary. Finally, in the bottom section, write a summary of the film and explain the relationship between power and place.

1. Political Power and Territory (5 min)	<ul style="list-style-type: none"> a) How does the landscape give power over others? b) Describe how American Indian tribes controlled their territories. c) What is Social Darwinism?
2. <i>The Rise of Ancient Empires</i> (3 min) <i>What is significant about the geographical location of all of the empires listed in the film?</i>	<ul style="list-style-type: none"> a) How did emperors in the ancient world control large territories? How did they get legitimacy for their reign? b) List the empires named in the video.
3. The Emergence of Nations (2 min)	<ul style="list-style-type: none"> a) How did the idea of power and territory change after the Middle Ages? b) What does “volk” mean and how did the idea of “volk” come to change the idea of how a territory should be defined?
4. Political Boundaries Make their Appearance (6 min)	<ul style="list-style-type: none"> a) How did the development of formal boundaries change the nature of defending territory? b) How did the Peace of Westphalia affect the idea of nations and states?
5. The Territorial	a) How was the creation and evolution of the boundaries of the United

Evolution of the US (2 min)	States unique?
6. Distinguishing between nation and state (4 min)	<p>a) How are the concepts of nation and state related? How do they differ?</p> <p>b) According to the video, how was the collapse of the Soviet Union inevitable?</p>
7. The Creation of New Geopolitical Entities (3 min)	a) How will the map of the world, and the boundaries of world states, continue to change in the future?
Summary	

Student Viewing Guide

To accompany Video Program 4: *Political Boundaries* (Answer sheet)

<p>1. Political Power and Territory (5 min)</p>	<p>a) How does the landscape give power over others?</p> <ul style="list-style-type: none"> • Ability to control strategic landforms allowed control over others <p>b) Describe how American Indian tribes controlled their territories.</p> <ul style="list-style-type: none"> • Each tribe had a chief; defended their territory so they had exclusive use of the resources <p>c) What is Social Darwinism?</p> <ul style="list-style-type: none"> • The idea that groups of people respond to the same population pressures as organisms in nature.
<p>2. The Rise of Ancient Empires (3 min)</p> <p>What is significant about the geographical location of all of the empires listed in the film?</p> <p>All in Northern Hemisphere in low to mid-latitudes</p>	<p>a) How did emperors in the ancient world control large territories? How did they get legitimacy for their reign?</p> <ul style="list-style-type: none"> • Allegiance was to emperor, not territory; • Emperor gained legitimacy through alliance with religious leaders, economic development projects, and protection from external threats <p>b) List the empires named in the video.</p> <ul style="list-style-type: none"> • Rome, Alexander the Great/Persia, Mongols, Aztecs, Incan, Ottoman
<p>3. The Emergence of Nations (2 min)</p>	<p>a) How did the idea of power and territory change after the Middle Ages?</p> <ul style="list-style-type: none"> • Fixed boundaries • Loyalty to shared identity and territory; not ruler <p>b) What does “volk” mean and how did the idea of “volk” come to change the idea of how a territory should be defined?</p> <ul style="list-style-type: none"> • “volk” is a nation or group of people with shared mother tongue, dress, dance, music and art • “volk” have a spirit or national identity • Each “volk” should have their own territory to maintain their “volkgeist”
<p>4. Political Boundaries Make their Appearance (6 min)</p>	<p>a) How did the development of formal boundaries change the nature of defending territory?</p> <ul style="list-style-type: none"> • Once a formal boundary could be drawn, states began to fortify the line • Some boundaries are open, some are closed <p>b) How did the Peace of Westphalia affect the idea of nations and states?</p> <ul style="list-style-type: none"> • Each nation should have its own territory • Led to the idea of nation-states

5. The Territorial Evolution of the US (2 min)	<p>a) How was the creation and evolution of the boundaries of the United States unique?</p> <ul style="list-style-type: none"> • Boundaries created before national identity • Not based on the idea of a national homeland • Boundary not determined by another state or external colonial power
6. Distinguishing between nation and state (4 min)	<p>a) How are the concepts of nation and state related? How do they differ?</p> <ul style="list-style-type: none"> • Nation is a group of people with a common identity • State is a political designation; people within a state can have a national identity, but: <ul style="list-style-type: none"> ○ There can be multi-national states (US) ○ There can be nations split across multiple states (Kurds) ○ A nation can lead to the creation of a state (Israel) <p>b) According to the video, how was the collapse of the Soviet Union inevitable?</p> <ul style="list-style-type: none"> • Too many different nations, too many resources, too much territory and not enough power to defend and maintain the USSR
7. The Creation of New Geopolitical Entities (3 min)	<p>a) How will the map of the world, and the boundaries of world states, continue to change in the future?</p> <ul style="list-style-type: none"> • New forms of geopolitical entities will continue to be developed to meet the needs of each nation and/or state • Boundaries will shift and new states will be created
Summary: answers will vary	

Lesson Plan 2 - “The Ties That Bind”

To accompany Video Program 4: *Political Boundaries*

Grade Level: Grades 9-12

Lesson Summary: In this lesson, students will explore the concept of nation-states in more depth. They will begin by reviewing the section of the DVD which deals with nations and states. They will then conduct internet research to identify various nation-states and multinational states across the globe. By the end of this lesson, the student should be able to:

1. Identify states in the world which fit the nation-state model;
2. Identify multi-nation states;
3. Identify states which have experienced and are at risk for developing internal conflicts over territory;
4. Explain the factors which are most responsible for creating conflict.

Curriculum Connection: This lesson is designed for an AP Human Geography course, to be taught in the Political Geography unit.

Time Needed: Three 55 minute class periods

Materials Needed:

- “Human Geography: Making Sense of Planet Earth – Program 4: Political Boundaries” DVD
- Computer lab with internet connection (for Day Two only)
- CIA World Factbook <https://www.cia.gov/library/publications/the-world-factbook/>
- Computer with projection device or overhead projector and world map to project
- Student data collection sheet – one for every two students
- Blank political outline map of the world – one for every student
- 2006 AP Human Geography Exam - FRQ #3; grading rubric; and student answer samples (One per student)

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed.

APHG Topic Outline:

IV. Political Organization of Space. 13–17% (strikethroughs are not covered in this lesson)

A. Territorial dimensions of politics

1. The concept of territoriality
2. The nature and meaning of boundaries
3. Influences of boundaries on identity, interaction, and exchange
4. ~~Federal and unitary states~~
5. Spatial relationships between political patterns and patterns of ethnicity, economy, and environment

B. Evolution of the contemporary political pattern

1. The nation-state concept
2. ~~Colonialism and imperialism~~

- ~~3. Democratization~~
- C. Changes and challenges to political–territorial arrangements
 - ~~1. Changing nature of sovereignty~~
 2. Fragmentation, unification, alliance
 3. ~~Supranationalism and~~ devolution
 - ~~4. Electoral geography, including gerrymandering~~
 - ~~5. Terrorism~~

National Geography Standards:

The World in Spatial Term

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
3. How to analyze the spatial organization of people, places, and environments on Earth’s surface.

Human Systems

13. How the forces of cooperation and conflict among people influence the division and control of Earth’s surface.

The Uses of Geography

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

Starting the Lesson: (Day One: 20 minutes)

Focus Activity: Have students re-watch two selections from the “Political Boundaries” DVD:

1. The end of scene 4 – the discussion of the Peace of Westphalia, and
2. Scene 6: Distinguishing between nation and state.

Discuss how the Peace of Westphalia resulted in the creation of the nation-state ideal and led to the creation of nation-states throughout Europe. During the colonial period, European powers attempted to spread this concept to the rest of the world, however, very few true nation-states exist in the world. Most are multi-national states, such as the US and the Soviet Union. Discuss the collapse of the Soviet Union as described in the video – the collapse of a state is called **devolution**. Compare that with the success of the US as a state. Ask the students to discuss what factors may have played a role in the collapse of the Soviet Union; these factors are **centrifugal forces**. Discuss if these same factors exist in the US. If so, what factors outweigh the centrifugal factors to keep us united; these factors are centripetal forces.

The Lesson:

Asking Geographic Questions: (Day One: 15 minutes)

Which world states are most at risk for instability, and what factors might play a role in creating that risk?

Display a political map of the world and have students predict which states in the world are the most stable and which are the most likely to experience devolution. Select about 10 states for each list and write them down for future reference. Have students explain why the states are on the list – what factors predict instability vs. stability. The students will be gathering data on these factors, assigning an instability probability score, and making predictions on which states are most likely to experience conflict and instability.

Acquiring Geographic Information: (Day One: 20 minutes)

Divide students into pairs. Hand a student data collection sheet and a blank world map to each pair. Assign each pair of students 10 states to investigate from one region of the world. Each pair of students will use the internet to research their states and collect data.

Organizing Geographic Information: (Day Two: 20 minutes)

Students will organize their information on their student data collection sheet.

Analyzing Geographic Information: (Day Two: 30 minutes)

Students will assign an Instability Probability Score of 1 to 3 for each category, depending upon each category's probability of causing conflict or instability. Scores are:

- 1 – it is highly unlikely this factor will cause instability
- 2 – it is moderately likely this factor will cause instability
- 3 – it is highly likely this factor will cause instability

Be sure to explain that these scores are entirely a judgment call on their part, but they must be based on sound reasoning. Students should be able to provide a reasonable explanation as to why they assigned a score.

After they have arrived at an IPS for each state on their list, they should transfer each state's IPS to its location on the blank world map (each student will have his/her own map). They will create a choropleth map by shading states with a score of 3 a very light shade, 6 a slightly darker shade and 9 the darkest shade.

After each pair has completed their map, have the students share their information with the rest of the class – marking and shading their states on a world map displayed for everyone to see. As students present, the remaining students should shade their maps accordingly – so that at the end of the class, all maps are completed.

Upon completion of the class map, the teacher can display a map of current areas of conflict in the world to see how closely the class predictions line up with current world conflicts.

End the Lesson:

Answering Geographic Questions: (Day Two: 5 minutes)

Closing Activity: Discuss the following question as a class: How can this information be used, and by whom, to predict and prevent future world conflicts?

Assessment: (Day Three: Entire Period)

Hand out copies of the 2006 AP Human Geography Exam FRQ Number 3. If students are still in the early part of the year (and/or unit), and do not have sufficient knowledge to answer the question, allow students to take the question home and use their textbook or the internet to research the question. Have students write their answer in a timed writing (20 minutes, as suggested by AP testing times). Collect the student responses. Distribute the grading rubric for students to read. Then, distribute the student sample answers and have the students attempt to

score the essays. Discuss each essay and explain what the AP score for each student sample was. At this point, the teacher has the option of redistributing the students' essays for them to take home and correct before the teacher grades them, or the teacher may grade the essay and return them for the students to rewrite.

Nation-States Data Collection Sheet (student handout)

- A. You and your partner will be researching several states from a specific region of the world. You will use the CIA World Factbook Online to find your data. Take notes using the chart below.

Name		World Region:		Ethnic Composition		Religious Composition		GDP per capita	
1.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									
2.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									
3.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									
4.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									
5.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									
6.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									
7.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Nation-state? Yes / No									

8.				
Nation-state? Yes / No				
9.				
Nation-state? Yes / No				
10.				
Nation-state? Yes / No				

- B. Once you have completed collecting your data, assign each category a score from 1 to 3:
- 1 – it is highly unlikely this factor will cause instability
 - 2 – it is moderately likely this factor will cause instability
 - 3 – it is highly likely this factor will cause instability

Place the score in the small box in the upper right hand corner of each category's column – calculate the scores for the three categories combined and place that score in the box in the upper right hand corner of the name column. This is your Instability Probability Score.

- C. Once you have your IPS, each of you needs to transfer that number to each state's location on your blank map. You will create a choropleth map show your data. Choose three shades of the same color. Shade the lowest numbers (3) with the lightest shade, the medium numbers (6) with the medium shade, and the highest numbers (9) with the darkest shade. Make sure to label your map "Instability Probability Scores for World States" and include a key.
- D. You will present the information for your 10 states to the rest of the class and mark them on the class map. As other students present their findings, shade your map accordingly.

UNIT V: AGRICULTURE AND RURAL LAND USE

Unit V Summary

Four major themes are the focus of this fifth unit of the AP Human Geography course. These include (1) the origin and spread of agriculture; (2) the patterns and characteristics of the world's major agricultural regions; (3) the reasons why these regions function as they do; (4) and the impact of agricultural change on the quality of life. Literally all of these topics also are covered in Ambrose Video Program 5 on agriculture and rural land use as summarized below.

Unit V begins by asking AP Human Geography students to examine the various sites of plant and animal domestication and the diffusion of these early agricultural products through time. This topic is followed by a broad overview of Earth's major agricultural production patterns today. Other key concepts and theories related to rural land use such as Von Thunen's theory, factory farms, and Earth's capacity to increase food production in an era dominated by agricultural innovations and technology are examined with an eye toward the future production capacities of the planet.

Video Program 5 (on Disc 2): *Agriculture and Rural Land Use*

Program Summary

This video related to this AP Human Geography unit on agriculture and rural land use patterns provides an almost perfect match to the list of topics, concepts, and issues included in the summary above. Program five examines the intense “life and death” human-environmental relationship involved in agricultural production on Earth. The video begins with a broad overview of the global patterns of agriculture. Attention then turns to a discussion of the importance of the first agricultural revolution – or the Neolithic – an era when hunter-gatherer-based cultures and societies first began to evolve into producers of subsistence agriculture.

Another important part of this video is its examination of the places of origin of fruits and vegetables on Earth based on Berkeley geographer, Carl Sauer's, widely accepted theory. A case study on the origin, diffusion, and hybridization of corn featured in this discussion it tells the vivid story of how today's corn crop developed and changed through the centuries. Some of the other topics covered in this video (that also match the Unit V content summarized above); include an examination of the second agricultural revolution after mechanization, Von Thünen's rural land use theories, and the Green Revolution.

Chapters featured on this Program:

1. Global distribution of Agriculture
2. The First Agricultural Revolution
3. Primary Regions of Agricultural Diffusion
4. The Second Agricultural Revolution
5. The Green Revolution and Geopolitical Policy

UNIT V: Teaching Materials

Lesson Plan 1 – “Agricultural Production in U.S. Regions”

To accompany Video Program 5: *Agriculture and Rural Land Use*

Grade Level: 9-12

Lesson Summary: In this lesson, students will view a short video introducing the topic of agricultural and rural land use. While viewing, the students will complete a viewing guide covering the major topics in the video. The viewing guide contains a modified form of Cornell Notes and is intended to assist students with learning how to take notes during a video presentation. Upon completing the video, the students will complete an activity demonstrating understanding of the content of the film.

Curriculum Connection: This lesson is intended to be completed as an introduction to the Agricultural and Rural Land Use unit in an AP Human Geography course. After completing this lesson, students should be able to perform the following:

1. Explain how humans have changed the landscape through agriculture;
2. Explain the distribution of agriculture;
3. Identify the world’s major agricultural hearths;
4. Explain the causes, effects and technological innovations of each of the world’s three agricultural revolutions;
5. Explain how von Thunen’s model describes the spatial distribution of agriculture around towns;
6. Explain the role of geopolitics in modern agriculture.

Time Needed: One 55 minute class period

Materials Needed:

- Change in Number of Farms, 2002 to 2007 Map - to display (The image is included in the Resources section; a PDF is also available at the link below the image.)
- *Human Geography: Making Sense of Planet Earth* – Program 5: Agricultural and Rural Land Use” DVD
- “Agricultural and Rural Land Use” Student Viewing Guide – one per student
- Blank World Map – one per student

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 5.

APHG Topic Outline:

- V. Agriculture and Rural Land Use
 - A. Development and diffusion of agriculture
 1. Neolithic Agricultural Revolution
 2. Second Agricultural Revolution
 3. Green Revolution
 4. Modern Commercial Agriculture
 - B. Major agricultural production regions
 1. Agricultural systems associated with major bioclimatic zones
 2. Variations within major zones and effects of markets

3. Linkages and flows among regions of food production and consumption
- C. Rural land use and settlement patterns
 1. Models of agricultural land use, including von Thünen's model
 2. ~~Settlement patterns associated with major agriculture types~~
 3. ~~Land use/land cover change, irrigation, conservation (desertification, deforestation)~~
- D. Modern commercial agriculture
 1. Biotechnology, including genetically modified plants and animals
 2. ~~Spatial organization and diffusion of industrial agriculture~~
 3. ~~Organic farming and local food production~~
 4. Environmental impacts of agriculture

National Geography Standards:

The World in Spatial Term

3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Human Systems

12. The processes, patterns, and functions of human settlement.

The Uses of Geography

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

Starting the Lesson: ((10 minutes)

Map Analysis – Display the “Change in Number of Farms, 2002 to 2007” Map on the overhead as students enter the room. Have the students answer the map analysis questions (either posted on the board or handed to students).

When students have completed the questions, spend a few minutes reviewing their answers.

Questions:

1. What does this map depict, and how is the data depicted? (dot map, choropleth, etc.)
2. According to the map, which regions of the US saw the largest increases in the number of farms?
3. What factors do you think might be causing the increase of farms in these regions?
4. According to the map, which regions of the US saw the largest decreases in the number of farms?
5. What factors do you think might be causing the loss of farms in these regions?
6. In what ways would farming affect these regions?

The Lesson: (40 minutes)

Handout the student viewing guide. Discuss with the students that agriculture is one economic activity that is very closely tied to the geography of a region. In this video, the origins and evolution of farming will be explained. After completing this video, students should be able to answer the following guiding question:

How and where did agriculture develop, and how have subsequent changes in agriculture affected human populations?

Watch Program 5 “Agricultural and Rural Land Use” from the *Human Geography: Making Sense of Planet Earth* video series

Note to Instructor: While watching the video, make sure to stop periodically (or as students ask) to give students enough time to complete their answers on the viewing guide. The viewing guide is designed to follow the chapter or scenes on the DVD, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each

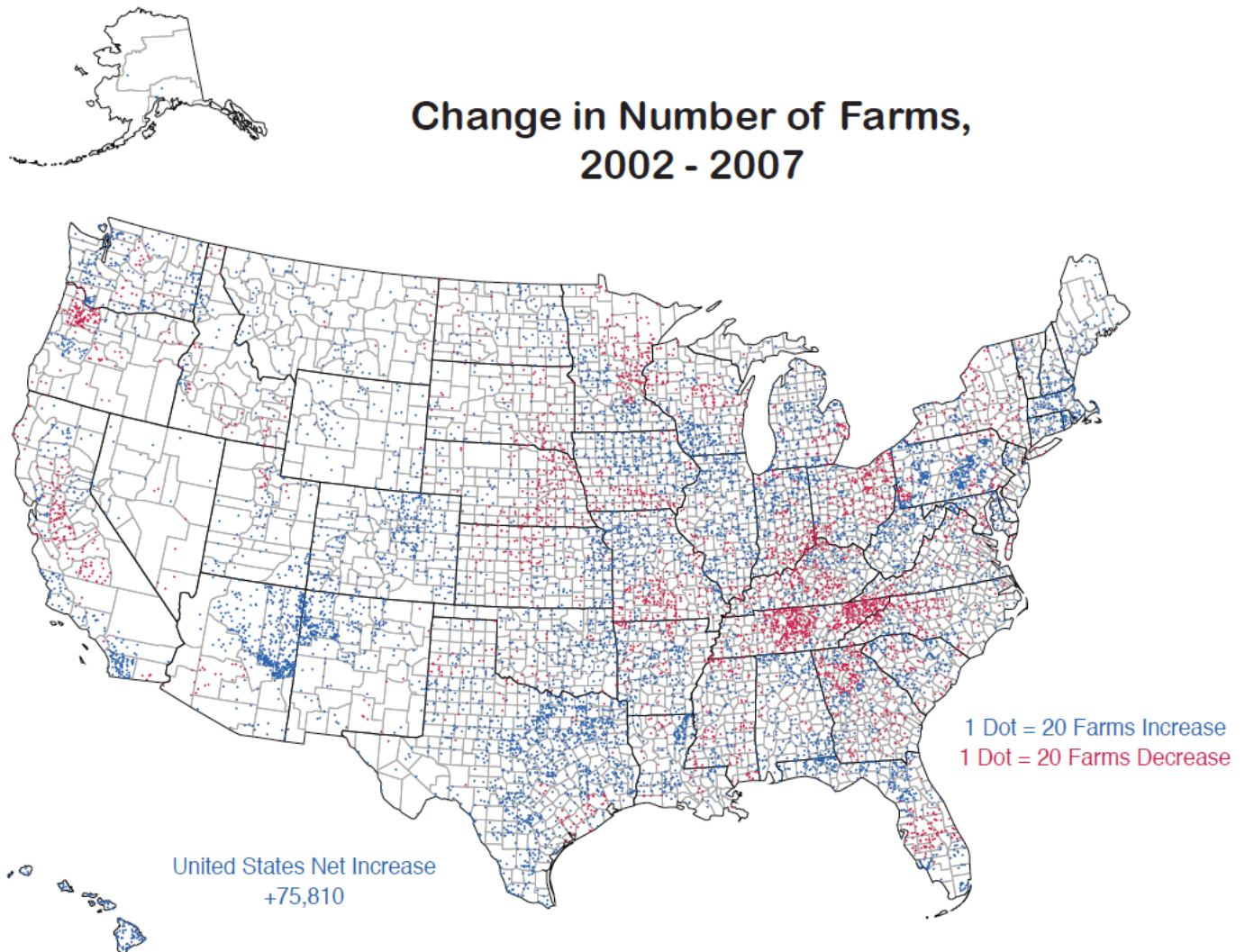
scene and return to the menu – allowing students a chance to complete their notes for each section. The video is only 28 minutes – time has been added to this section of the lesson to allow for stopping and starting.

Ending the Lesson: (5 minutes)

Closing activity: With the remaining class time (and for homework, as needed), have the students review their notes from the film. Have them clarify anything in their notes which they found confusing, label topics or main ideas, write questions, or add any additional information they would like to add in the left hand column. Finally, they should complete the summary section at the bottom by answering the guiding question.

Resources (Unit V, Lesson 1)

Change in Number of Farms, 2002 to 2007



http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Ag_Atlas_Maps/Farms/

Student Viewing Guide

To accompany Video Program 5: *Agriculture and Rural Land Use*

Directions. While you are viewing the video “Agricultural and Rural Land Use”, you will use the right hand side of the table to take notes – these are notes, so you can use abbreviations, bulleted lists, etc. After you have completed the video, use the left hand column to list main ideas, topics, questions, or other info you feel is necessary. Finally, in the bottom section, write a summary of the film and explain the relationship between power and place.

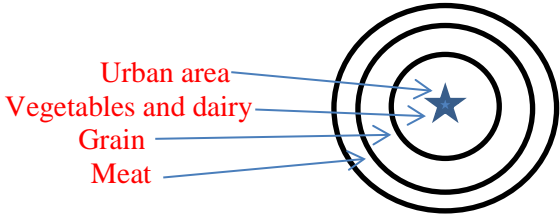
1. Global Distribution of Agriculture (2 min)	<ul style="list-style-type: none">a) What percentage of land worldwide is used for agriculture? Is this increasing or decreasing?b) List a few of the agricultural regions described in the film.
2. The First Agricultural Revolution (8 min)	<ul style="list-style-type: none">a) Describe the life of humans before the development of agriculture.b) About how many people still live this way today?c) What are the two main thoughts on how and where the first agricultural hearths developed?<ul style="list-style-type: none">1.2.d) List and describe the two ways to cultivate plants.<ul style="list-style-type: none">1.2.e) List the Common Characteristics of the First Agricultural Revolution.
3. Primary Regions of Agricultural Diffusion (5 min)	For this section, use your blank map to sketch each of the 11 major origin regions for fruits and vegetables. List the foods from that region within the area you draw. If possible, use different colors for each region.
4. The Second	<ul style="list-style-type: none">a) What major changes occurred as a result of the movement away from subsistence

Agricultural Revolution (4 min)	<p>farming towards surplus or commercial farming?</p> <p>b) List and describe the two steps that occurred during the Second Agricultural Revolution.</p> <p>c) Draw and label the von Thünen model.</p> <p>d) What is the purpose of the von Thünen model and does this model still apply today?</p>
5. The Green Revolution and Geopolitical Policy (6 min)	<p>a) List several ways agriculture changed after the Green (or Borlaug) Revolution.</p> <p>b) What are some issues and/or questions that have arisen as a result of the Green Revolution?</p>
Summary	

Video Viewing Guide

To accompany Video Program 5: *Agriculture and Rural Land Use* (Answer sheet)

1. Global Distribution of Agriculture (2min)	<p>a) What percentage of land worldwide is used for agriculture? Is this increasing or decreasing? 40%; increasing</p> <p>b) List a few of the agricultural regions described in the film. Wheat region in American Central Plains, olive groves in the Mediterranean; dairy farms near urban areas; rainforest gardens in the Yucatan; sunflower fields in Argentina</p>
2. The First Agricultural Revolution (8 min)	<p>a) Describe the life of humans before the development of agriculture. Hunting and fishing, gathering fruits, nuts and roots; close to water corridors, forest openings and coastal areas</p> <p>b) About how many people still live this way today? 300,000</p> <p>c) What are the two main thoughts on how and where the first agricultural hearths developed?</p> <ol style="list-style-type: none"> People settled along freshwater sources People settled in areas with volcanic soils and mountainous areas with a great deal of genetic diversity <p>d) List and describe the two ways to cultivate plants.</p> <ol style="list-style-type: none"> Taking cuttings (vegetative) – developed in Southeast Asia, the Mediterranean and the Andes Seed cultivation – developed in Ethiopia, western India, northern China, the Andes and southern Mexico <p>e) List the Common Characteristics of the First Agricultural Revolution.</p> <ul style="list-style-type: none"> After the last Ice Age Farm tools as or more important than weapons Nomadic lifestyle replaced by a sedentary lifestyle Search for hunting grounds replaced by search for farm land Plant and animal domestication Increased carrying capacity of the land Concentrated power unevenly
3. Primary Regions of Agricultural Diffusion (5 min)	For this section, use your blank map to sketch each of the 11 major origin regions for fruits and vegetables. List the foods from that region within the area you draw. If possible, use different colors for each region.
4. The Second Agricultural	a) What major changes occurred as a result of the movement away from subsistence farming towards surplus or commercial farming?

<p>Revolution (4 min)</p>	<p>Allowed philosophy and science to expand knowledge, more knowledge gained about farming</p> <p>b) List and describe the two steps that occurred during the Second Agricultural Revolution.</p> <p>Step one – changing land practices to increase fertility; mixing animals and crops; Step two – mechanization; occurred with Industrial Revolution; less labor on the farm meant people could move to cities for work</p> <p>c) Draw and label the von Thünen model.</p>  <p>d) What is the purpose of the von Thünen model and does this model still apply today?</p> <p>To model and explain the relationship between cost of transportation, perishability, and cost of land; model still applies but cheaper transportation means that goods can come from much farther away</p>
<p>5. The Green Revolution and Geopolitical Policy (6 min)</p>	<p>a) List several ways agriculture changed after the Green (or Borlaug) Revolution.</p> <p>No longer regional or local; big business – much more government involvement; agriculture became an agent of change; development of government research stations; national policies to change agricultural production in various parts of the world</p> <p>b) What are some issues and/or questions that have arisen as a result of the Green Revolution?</p> <p>What should be grown where? What should people eat? How can we distribute food?</p>
<p>Summary</p>	

Lesson Plan 2 – “You Say You Want a Revolution?”

To accompany Video Program 5: *Agriculture and Rural Land Use*

Grade Level: 9-12

Lesson Summary: In this lesson, students will explore the three agricultural revolutions using internet research. By the end of this lesson, the students will be able to:

1. Define each of the agricultural revolutions.
2. Explain the agricultural practices and technologies associated with each revolution.
3. Identify the world regions where each revolution began.
4. Identify the factors which led to the success of each revolution.
5. Identify the effects each revolution had on society and the world.

Curriculum Connection: This lesson is designed to be included in an Agricultural and Rural Land Use Unit in an AP Human Geography course.

Time Needed: Four 55 minute class periods

Lesson Status: Developed

Materials Needed:

- *Human Geography: Making Sense of Planet Earth* – Program 5: Agricultural and Rural Land Use” DVD
- “You Say You Want a Revolution” Student Handout – one per student
- Blank World Maps – one per group
- Computer lab with internet access
- Library (Day One and Two)
- 2001 AP Human Geography Exam - FRQ #1; grading rubric; and student answer samples (One per student)

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in this lesson.

APHG Topic Outline:

- V. Agriculture and Rural Land Use 13–17%
 - A. Development and diffusion of agriculture
 - 1. Neolithic Agricultural Revolution
 - 2. Second Agricultural Revolution
 - 3. Green Revolution
 - 4. Modern Commercial Agriculture
 - ~~B. Major agricultural production regions~~
 - ~~1. Agricultural systems associated with major bioclimatic zones~~
 - ~~2. Variations within major zones and effects of markets~~
 - ~~3. Linkages and flows among regions of food production and consumption~~
 - ~~C. Rural land use and settlement patterns~~
 - ~~1. Models of agricultural land use, including von Thünen’s model~~
 - ~~2. Settlement patterns associated with major agriculture types~~

3. Land use/land cover change, irrigation, conservation (desertification, deforestation)
- D. Modern commercial agriculture
 1. Biotechnology, including genetically modified plants and animals
 2. Spatial organization and diffusion of industrial agriculture
 3. ~~Organic farming and local food production~~
 4. Environmental impacts of agriculture

National Geography Standards:

The World in Spatial Term

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Human Systems

12. The processes, patterns, and functions of human settlement.
14. How human actions modify the physical environment.

The Uses of Geography

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

Starting the Lesson:

Focus Activity: (10 minutes)

As students enter the room, hand them a playing card. Make sure you have equal numbers of each suit for the number of students in the class. (for example, for 32 students you will need 8 cards from each suit. Try to use cards Ace through eight.) Ask them to hang on to their cards for now. Then, have them get out their Viewing Guide for "Agricultural and Rural Land Use". Have them answer the following map analysis questions for the map they created during the film.

1. How many regions of fruit and vegetable domestication did Carl Sauer propose?
2. What geographic factors do these regions all have in common?
3. Why do you think these regions were hearths for fruit and vegetable domestication?

When the students have completed their questions, discuss their answers as a class.

Asking Geographic Questions: (Day One: 10 minutes)

Introduce the Geographic Question the students will be investigating for this lesson.

How did each of the agricultural revolutions develop, evolve and affect the landscape?

Ask the students to review their notes from the DVD and hypothesize answers to the question.

The Lesson:

Acquiring Geographic Information: (Remaining period of Day One)

Have students look at their cards. Divide the groups by suit. Each suit will research one of the agricultural revolutions (we are going to include the Industrial Food Revolution of the 1970's to the present). Each group will research their assigned revolution using textbooks, library materials, and the internet. Within each group, the students will research the information in pairs, which can be divided as the teacher sees fit. For

example, one pair may investigate Political causes and effects only. To make grouping easy, the pairs can be selected with the cards (Ace and two, three and four, etc.) Make sure to have the students review their notes from the “Agricultural and Rural Land Use” video, as some of the information they need may be found there. In addition, it is often helpful to use the textbook before looking online or in library resources.

Organizing Geographic Information: (Day Two: 30 minutes)

As students find the information, they need to complete the PERSIA graphic organizer on the student handout. The PERSIA graphic organizer allows students to organize information based upon six factors which can be causes or effects of major historical events. In this case, a seventh factor has been added to include factors created by the environment.

P – Political

E – Economic

R – Religion

S – Social

I – Intellectual

N – Natural Environment

Make sure the students understand that they may not find causes and/or effects for each factor in their research. For example, the Neolithic Revolution pre-dated any type of organized politics, so they may not find any political causes of this revolution. But, it did lead to the rise of a ruling class, so that could be listed as an effect. The student handout contains questions and points to consider to assist the students with their research.

Analyzing Geographic Information: (Day Two: 25 minutes and Day Three: 45 minutes)

After everyone has completed their graphic organizer, the original groups will reform. Information gathered by each pair will be shared with the remaining group. The group will decide how to share that information with the rest of the class. The research and analysis may take extra time, so the teacher can add a day, if necessary. In addition, if time allows, each group can create a power point to display their information to the class.

After each group has finished their research and analysis, they will share their findings with the rest of the class.

Ending the Lesson:

Answering Geographic Questions: (Day Three: 10 minutes)

After each of the groups has presented its information to the class, have the class write a short answer to the original question: How did each of the agricultural revolutions develop, evolve and affect the landscape?

Assessment: ((Day Four: Entire Period)

Hand out copies of the 2001 AP Human Geography Exam FRQ Number 1. Have students write their answer in a timed writing (20 minutes, as suggested by AP testing times). Collect the student responses. Distribute the grading rubric for students to read. Then, distribute the student sample answers and have the students attempt to score the essays. Discuss each essay and explain what the AP score for each student sample was. At this point, the teacher has the option of redistributing the students’ essays for them to take home and correct before the teacher grades them, or the teacher may grade the essay and return them for the students to rewrite.

You Say You Want A Revolution? (student handout)

Your group will be researching the factors which played a role in the origins of a specific agricultural revolution. Within your group, you and a partner will be responsible for researching certain specific information and reporting it back to your group. With each factor, you will find some questions to help guide your research. After your group meets, you should have the entire chart below completed.

Origins, Evolution and Effects of the:

Revolution Dates:

Geographic Factors	Factors which caused or play a role in the origins of the revolution	Factors which were affected by the revolution
<p>Political</p> <ul style="list-style-type: none"> • What political processes may have played a role in the beginnings of this revolution? • How were these processes affected by the revolution? • Consider: political systems, laws, government programs 		
<p>Economic</p> <ul style="list-style-type: none"> • What economic processes may have played a role in the beginnings of this revolution? • How were these processes affected by the revolution? • Consider: economic activities, economic systems, taxation, imports/exports, transportation costs 		

<p>Religion</p> <ul style="list-style-type: none"> • What religious processes may have played a role in the beginnings of the revolution? • How were religious processes affected by the revolution? • Consider: myths and early belief systems, religious laws, organized religions, 		
<p>Social</p> <ul style="list-style-type: none"> • What social processes may have played a role in the beginnings of the revolution? • How were social processes affected by the revolution? • Consider: ethnicity, race, gender, division of labor, family size, population growth and distribution 		
<p>Intellectual</p> <ul style="list-style-type: none"> • What intellectual processes may have played a role in the beginnings of the revolution? • How were intellectual processes affected by the revolution? • Consider: technology, scientific understanding or advancements, education, knowledge of farming 		

<p>Artistic</p> <ul style="list-style-type: none"> • What artistic processes may have played a role in the beginnings of the revolution? • How were artistic processes affected by the revolution? • Consider: art, music, literature 		
<p>Natural World</p> <ul style="list-style-type: none"> • In which regions of the world did this revolution first occur? (use a blank world map to map this) • What environment processes played a role in the beginnings of the revolution and its location? • How were environmental processes affected by the revolution? • Consider: climate, soil types, location of rivers, landscape, pollution, 		

Once you and your group have completed your research, prepare your information to share with the class.

Finally, answer the following question as a group:

How did this revolution begin, evolve and eventually affect the landscape around it? Which regions of the world were the most greatly impacted, and why?

UNIT VI: Industrialization and Economic Development

Unit VI Summary

By dividing the economic development discussed in this AP Human Geography unit into key sectors – students learn more about how the location patterns of natural resources, political divisions, cultural groups, and other factors interact to influence the development and spread of various types of industrial activities. Unit VI also provides opportunities for students to study some models of economic development such as Weber and Von Thünen’s location theories, Rostow’s model, and Wallerstein’s World Systems theory. These theories and a number of related economic development concepts are illustrated by topics in this unit such as the impact of the Industrial Revolution on early development; factors leading to the rapid rise of economic development in Asian countries in the 1980s; the rise of consumption and leisure activities in much of the world in recent decades; and patterns of economic equity on Earth that are closely linked to geographies of interdependence in the global economy.

Video Program 6 (on Disc 3): *Industrialization and Economic Development*

Program Summary

As number of compelling questions frame this richly illustrated video – and many also lie at the heart of the goals of Unit VI as summarized above. How can the concept of “development” best be defined? Would every nation on Earth benefit from it? How can economic disparity and diversity become more evenly distributed across the planet to assure that all countries have the power to assure citizens of their well-being? How did economic development in the United States evolve from the Colonial era up to the 21st century? And, what is the importance of place in understanding economic production?

Answers to these and other questions provide rich opportunities for the speakers and images presented in this video to focus attention on related economic concepts such as commodity chains, “natural” resources, the economic landscape – and forging a more equitable world.

.Chapters featured on this Program:

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

UNIT VI: Teaching Materials

Lesson Plan 1 – “The Wheels of Progress”

To accompany Video Program 6: *Industrialization and Rural Land Use*

Grade Level: 9-12

Lesson Summary: In this lesson, students will view a short video introducing the topic of industrialization and economic development. While viewing, the students will complete a viewing guide covering the major topics in the video. The viewing guide contains a modified form of Cornell Notes and is intended to assist students with learning how to take notes during a video presentation. Upon completing the video, the students will complete an activity (in another lesson) demonstrating understanding of the content of the film.

Curriculum Connection: This lesson is intended to be completed as an introduction to the Industrialization and Economic Development unit in an AP Human Geography course. After completing this lesson, students should be able to perform the following:

1. Explain the economic factors which shape the landscape.
2. Explain the role GDP plays in determining levels of development,
3. Trace the economic development of the United States.
4. Describe Rostow’s Model of Economic Development.
5. Explain how resources are cultural achievements.
6. Explain different views of development.

Time Needed: One 55 minute class period

Materials Needed:

- “Human Geography: Making Sense of Planet Earth – Program 6: Industrialization and Economic Development”
- DVD - “Industrialization and Economic Development” Student Viewing Guide – one per student

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 6.

APHG Topic Outline:

- VI. Industrialization and Economic Development
- A. Growth and diffusion of industrialization
1. The changing roles of energy and technology
 2. Industrial Revolution
 3. Evolution of economic cores and peripheries
 4. Geographic critiques of models of economic localization (i.e., bid rent, comparative costs of transportation), industrial location, economic development, and world systems
- B. Contemporary patterns and impacts of industrialization and development
1. Spatial organization of the world economy
 2. Variations in levels of development
 3. Deindustrialization and economic restructuring
 4. Globalization and international division of labor
 5. Natural resources and environmental concerns

6. Sustainable development
7. Local development initiatives: government policies
8. Women in development

National Geography Standards:

The World in Spatial Term

3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Human Systems

11. The patterns and networks of economic interdependence on Earth's surface.

Environment and Society

16. The changes that occur in the meaning, use, distribution, and importance of resources.

The Uses of Geography

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

Starting the Lesson: ((10 minutes)

Focus Activity: Timed Writing Activity – Have the following question posted on the board as students enter the room. Give them a minute or two to think about the question and then about 5 minutes to write an answer. After all students have completed writing, have a few students volunteer to share their answer with the class. Discuss student answers.

List several ways industrialization has affected the US, and explain if these changes have been positive or negative. Describe how you think the US would be different if industrialization had not occurred here.

The Lesson: (40 minutes)

Distribute the student viewing guide. Discuss with the students that industrialization has played a significant role in the economic development of countries around the globe. After completing this video, students should be able to answer the guiding question:

How does industrialization affect the economic development of places and regions?

Watch Program 5: “Industrialization and Economic Development” from the “Human Geography: Making Sense of Planet Earth” video series

Note to Instructor: While watching the video, make sure to stop periodically (or as students ask) to give students enough time to complete their answers on the viewing guide. The viewing guide is designed to follow the chapter or scenes on the DVD, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. The video is only 28 minutes – time has been added to this section of the lesson to allow for stopping and starting.

Ending the Lesson: (5 minutes)

Closing activity: With the remaining class time (and for homework, as needed), have the students review their notes from the film. Have them clarify anything in their notes which they found confusing, label topics or main ideas, write questions, or add any additional information they would like to add in the left hand column. Finally, they should complete the summary section at the bottom by answering the guiding question.

Student Viewing Guide

To accompany Video Program 6: *Industrialization and Rural Land Use*

Directions. While you are viewing the video “Industrialization and Economic Development”, you will use the right hand side of the table to take notes – these are notes, so you can use abbreviations, bulleted lists, etc. After you have completed the video, use the left hand column to list main ideas, topics, questions, or other info you feel is necessary. Finally, in the bottom section, write a summary of the film and explain the relationship between power and place.

1. Economic Diversity (2 min)	a) Which economic factors have a spatial distribution which affects the economic landscape?				
2. Gross Domestic Product (2 min)	a) What is Gross Domestic Product? b) How is it used to measure economic development? c) What are the limitations of using GDP as a measure of development?				
3. US Economic History (3 min)	a) Outline the economic history of the US Colonial period 1. 1774 2. 1800's and early 1900's 3. 1970's 4. 1990's 5. 2000's				
4. Economic Development (5 min)	a) How do most geographers measure development and when did this begin? b) What are Rostow's 5 Stages of Development				

	<p>c) What are some of the weaknesses of Rostow's model?</p> <p>d) Why is development a contested concept? What are some different ways people view development?</p>
5. Natural Resources (2 min)	<p>a) What are some effects of "development"?</p> <p>b) Explain why resources are seen as a cultural achievement.</p> <p>c) How have some places managed to thrive despite their lack of resources?</p>
6. Commodity Chain (3 min)	<p>a) How do products develop through a commodity chain?</p> <p>b) How has interconnectivity of places reorganized the physical and human landscape?</p> <p>c) Explain what is meant by "the world is flat".</p>
7. Economics and Geographic Place (3 min)	<p>a) Why does place affect clustering of industries? What factors cause them to cluster?</p>
8. Redefining Economic Development (4 min)	<p>a) Does the process of development mean that all places have to be alike?</p>

	b) How can we change our view of development to allow cultures to maintain their identity?
Summary	

Student Viewing Guide

To accompany Video Program 6: *Industrialization and Rural Land Use* (Answer sheet)

1. Economic Diversity (2 min)	<p>a) Which economic factors have a spatial distribution which affects the economic landscape?</p> <ul style="list-style-type: none"> • Resource availability • Transportation infrastructure • Labor costs • Location of people and markets • Availability of technology and knowledge
2. Gross Domestic Product (2 min)	<p>a) What is Gross Domestic Product? Measure of total goods and services produced in the formal economy</p> <p>b) How is it used to measure economic development? Gives an indication of the relative economic position of different places</p> <p>c) What are the limitations of using GDP as a measure of development? Does not measure the informal economy; some places may have a lot of people involved in the informal economy – including non-commercial agriculture</p>
3. US Economic History (3 min)	<p>a) Outline the economic history of the US</p> <ol style="list-style-type: none"> 1. Colonial period Self-sufficient agricultural communities; raise crops and livestock; near sea and freshwater 2. 1774 Strong enough economy to declare independence 3. 1800's and early 1900's Projects such as expanding the infrastructure – canal building, ports, railways, boosted the economy; new resources found; agrarian based economy moved to industrial economy; investments in public education 4. 1970's Became an information economy 5. 1990's Development of large financial services 6. 2000's Center of global internet commerce
4. Economic Development (5 min)	<p>a) How do most geographers measure development and when did this begin? Improvements in technology and efficiency and the rise in general material wealth; began in Great Britain during the Industrial Revolution</p>

	b) What are Rostow's 5 Stages of Development				
	Traditional	Transitional	Takeoff	Drive to Maturity	High Mass Consumption
	<p>c) What are some of the weaknesses of Rostow's model?</p> <ul style="list-style-type: none"> Doesn't take place into account Some countries do not have adequate infrastructure to progress and get "stuck" Other collapse <p>d) Why is development a contested concept? What are some different ways people view development?</p> <p>Some think it is modernization; others it is GDP per capita; it is contested because it can be harmful to local cultures and the environment</p>				
5. Natural Resources (2 min)	<p>a) What are some effects of "development"?</p> <ul style="list-style-type: none"> Exploitation Degradation of the environment Destruction of local culture Mishandling of resources <p>b) Explain why resources are seen as a cultural achievement.</p> <p>Resources only become valuable when a culture decides they have a use for them</p> <p>c) How have some places managed to thrive despite their lack of resources?</p> <p>They have relationships with places that do have resources – trade routes, etc.</p>				
6. Commodity Chain (3 min)	<p>a) How do products develop through a commodity chain?</p> <p>Economy is reorganized around manufacturing; commodities are moved to places where they are needed – creating connections between vastly different places</p> <p>b) How has interconnectivity of places reorganized the physical and human landscape?</p> <p>Some places are sources of resources – physical and cultural landscape are altered by obtaining the resources (i.e. mining); some places become centers of manufacturing</p> <p>–</p> <p>providing jobs and modernization in those areas</p>				

	<p>c) Explain what is meant by “the world is flat”. As places become more interconnected, they become more alike. Economic activities are no longer place dependent because of modern communications and cheap transportation.</p>
7. Economics and Geographic Place (3 min)	<p>a) Why does place affect clustering of industries? What factors cause them to cluster? Certain places attract certain industries due to:</p> <ul style="list-style-type: none"> • Availability of a specialized labor pool • Technology spillover • Network of local suppliers
8. Redefining Economic Development (4 min)	<p>a) Does the process of development mean that all places have to be alike? No.</p> <p>b) How can we change our view of development to allow cultures to maintain their identity?</p> <ul style="list-style-type: none"> • Allow cultures to maintain their traditions while providing better healthcare and infrastructure. • Pay attention to what local people actually need – they know their landscape better than we do. • Quality of life can be seen as separate from development – not everyone should be expected to be part of urban society • Places do not have to be the same • More understanding of patterns and connections.
Summary	
Answers will vary	

Lesson Plan 2 – “Rostow’s Model of Development”

To accompany Video Program 6: *Industrialization and Rural Land Use*

Grade Level: 9-12

Lesson Summary: In this lesson, students will explore the 5 stages of Rostow’s model of development using internet research and photo analysis. By the end of this lesson, the students will be able to:

- Define and describe each of the five stages of development.
- Identify and explain the usefulness of Rostow’s model.
- Identify and explain the weaknesses of Rostow’s model.
- Use photo analysis of places to determine their stage of development in the model.

Lesson Summary: In this lesson, students will explore the 5 stages of Rostow’s model of development using internet research and photo analysis. By the end of this lesson, the students will be able to:

1. Define and describe each of the five stages of development.
2. Identify and explain the usefulness of Rostow’s model.
3. Identify and explain the weaknesses of Rostow’s model.
4. Use photo analysis of places to determine their stage of development in the model.

Curriculum Connection: This lesson is designed to be included in an Industrialization and Economic Development Unit in an AP Human Geography course. Students should have prior understanding of colonial processes before attempting this lesson.

Time Needed: 55 minute class periods

Materials Needed:

- “Human Geography: Making Sense of Planet Earth – Program 6: Industrialization and Economic Development” DVD
- “Rostow’s Model of Economic Development” Student Handout – one per student
- Photo Collection - perhaps 15 to 20, depending upon class size, from various countries. Photos should include people and clues to economic activities and development. Two sample photos are included under resources below. Materials from Material World or Hungry Planet are highly recommended, if you have access to them. Otherwise, National Geographic’s Photo of the Day archive is an excellent source of photos. Photos should be small enough to post on the chart on a classroom wall – although if the Material World posters are used, the “chart” can be an entire wall that is sectioned off into 5 columns.
- Large chart with 5 columns (made of poster paper or drawn or projected onto the board or a wall.)
- Computer lab with internet access and/or library access
- 2001 AP Human Geography Exam - FRQ #3; grading rubric; and student answer samples (One per student)

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in this lesson.

APHG Topic Outline:

VI. Industrialization and Economic Development

- A. Growth and diffusion of industrialization
 - 1. The changing roles of energy and technology
 - 2. Industrial Revolution
 - 3. Evolution of economic cores and peripheries
 - 4. Geographic critiques of models of economic localization (i.e., bid rent, comparative costs of transportation), industrial location, economic development, and world systems
- B. Contemporary patterns and impacts of industrialization and development
 - 1. Spatial organization of the world economy
 - 2. Variations in levels of development
 - 3. Deindustrialization and economic restructuring
 - 4. Globalization and international division of labor
 - 5. Natural resources and environmental concerns
 - 6. Sustainable development
 - 7. Local development initiatives: government policies
 - 8. Women in development

National Geography Standards:

The World in Spatial Term

- 1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
- 3. How to analyze the spatial organization of people, places, and environments on Earth’s surface.

Human Systems

- 12. The processes, patterns, and functions of human settlement.
- 14. How human actions modify the physical environment.

The Uses of Geography

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

Starting the Lesson:

Focus Activity: (15 - 20 minutes)

Photo Analysis – Display a photo of a place showing people and, if possible, some form of economic activity/transportation/material possessions, etc. (2 sample photos have been included below. Do not display captions or give students any other information.) Have students complete the following questions from the photo:

Five Themes Photo Analysis

- 1. Location: Where do you believe this photo was taken? What clues in the photo lead you to this conclusion?
- 2. Place:
 - a. Do the people in the photo appear to be part of pop culture or folk culture? What clues in the photos lead you to this conclusion?
 - b. What evidence of economic activities do you see in the photo? Would these activities be part of a formal economy or an informal economy? Explain your answer.

- c. How much evidence of the physical environment do you see in the photo? Can you see landscape features, plants, etc.? If so, describe them.
3. Region:
 - a. Does this area seem to be rural or urban?
 - b. Does this place seem to have connections with other places (religion, trade, etc.)?
4. Movement:
 - a. Is there evidence of transportation (or communication) methods in the photo? If so, what are they?
 - b. How “modern” does the transportation/communication infrastructure seem?
 - c. Do the people in the photo seem to “belong” in this place, or do they appear to be out of place? (tourists, migrants, etc.)
5. Human-Environment Interaction
 - a. Based upon the photo, to what extent has this place been altered by humans?
 - b. Can you see evidence of human adaptation to the environment in the photo?

After the students have completed their questions, ask them if they feel this place is developed or developing. Have them support their answers. Restate that development is uneven – even though the Seoul train station area seems highly developed, other places in South Korea may not be as developed. During this lesson, the students will conduct more photo analyses and determine where each place fits within Rostow’s model.

The Lesson:

Asking Geographic Questions: (Day One: 5 minutes)

Write the guiding question on the board:

How can we use Rostow’s Model of Economic Development to understand the economic development of places, and what are the limitations of using this model?

Since the question has two parts, there are two inquiry cycles in this lesson. The students will begin by demonstrating their understanding of Rostow’s Model.

I. Understanding and Applying Rostow’s Model

Acquiring and Organizing Geographic Information: (Day One: 20 minutes)

Prior to class, post a large chart on the wall with 5 columns.

Have the students label Rostow’s Model on their handout. Have a student come up and label each column on the wall chart. Discuss as a class the characteristics a place might exhibit for each stage of development. Make a list of these on the class chart, while the students list them on their own charts.

Divide the students into pairs and distribute the photos to each pair. Have them complete the Five Themes Photo Analysis and determine in which stage of Rostow’s their place belongs. Have them post their picture in the appropriate column on the class chart.

Analyzing Geographic Information and Answering Geographic Questions: (Day One: 10 minutes)

Once all the pairs have finished, discuss as a class the photos in each column – does the class agree that all the photos are placed correctly? Discuss as a class why some places might seem to belong in another column? What does knowing the stage of development tell us about this place? What doesn't it tell us?

The second inquiry process deals with understanding the limits of Rostow's Model when applying it to non-Western cultures and places – especially places which were former colonies.

II. Limitations of Rostow's Model

Acquiring and Organizing Geographic Information: (Day Two: Entire Period)

Have the students re-watch "Industrialization and Economic Development" scene 4: Economic Development. Have them focus their attention on the section discussing the limitations of Rostow's Model. Discuss with students the types of places the film states the model does not describe well. What do those places have in common? What factors have limited their ability to progress the way the model indicates they should? Explain that many of these places were former colonies. (Russia is an exception, but not germane to this lesson. It can be discussed, if time allows.)

Assign each pair a country in one of the following regions: Latin America, Sub-Saharan Africa, or South Asia.

Have them conduct research on their assigned country and complete their handout.

Analyzing Geographic Information and Answering Geographic Questions: (Day Three: 35 minutes)

Students will complete research on assigned country and answer the guiding question.

Ending the Lesson: (Day Three: 20 minutes)

Have pairs share their answer to the guiding question about their country. Discuss as a class if most of these countries seem to be following Rostow's model or not. Discuss the factors where they do follow the model and where they do not.

Assessment: ((Day Four: Entire Period)

Hand out copies of the 2001 AP Human Geography Exam FRQ Number 3. Have students write their answer in a timed writing (20 minutes, as suggested by AP testing times). Collect the student responses. Distribute the grading rubric for students to read. Then, distribute the student sample answers and have the students attempt to score the essays. Discuss each essay and explain what the AP score for each student sample was. At this point, the teacher has the option of redistributing the students' essays for them to take home and correct before the teacher grades them, or the teacher may grade the essay and return them for the students to rewrite.

Resources:

Sample Photos for Focus Activity Analysis:



Figure 1: Main Train Station in Seoul, South Korea. Photo by: Michelle Crane



Figure 2: Date Seller in Morocco. Photo by: Michelle Crane

Material World by Peter Menzel – book, poster set, and other materials available at www.socialstudies.com

Hungry Planet by Peter Menzel – book, poster set and other materials available at www.socialstudies.com
National Geographic's Photo of the Day www.photography.nationalgeographic.com/photography/photo-of-the-day

CIA World Factbook <https://www.cia.gov/library/publications/the-world-factbook/>

Rostow's Stages of Economic Development

- I. A. Understanding and Applying the Model – Label each of the stages of Rostow's Model. Then, copy the characteristics of each stage as your class discusses them.

Stage:	1:	2:	3:	4:	5:
Characteristics:					

- B. Use the Five Themes Photo Analysis questions to analyze the photo you and your partner have.

Theme:	Questions:	Answers:
Location	1. Where do you believe this photo was taken? What clues in the photo lead you to this conclusion?	
Place	2. Do the people in the photo appear to be part of pop culture or folk culture? What clues in the photos lead you to this conclusion? 3. What evidence of economic activities do you see in the photo? Would these activities be part of a formal economy or an informal economy? Explain your answer. 4. How much evidence of the physical environment do you see in the photo? Can you see landscape features, plants, etc.? If so, describe them.	
Region	5. Does this area seem to be rural or urban? 6. Does this place seem to have connections with other places (religion, trade, etc.)?	
Movement	7. Is there evidence of transportation (or communication) methods in the photo? If so, what are they? 8. How "modern" does the transportation/communication infrastructure seem?	

	9. Do the people in the photo seem to “belong” in this place, or do they appear to be out of place? (tourists, migrants, etc.)	
HEI	10. Based upon the photo, to what extent has this place been altered by humans? 11. Can you see evidence of human adaptation to the environment in the photo?	

C. Based upon your answers, what stage do you believe this place is in?

- II. Your teacher will assign you a country to research. You will determine how Rostow’s Model does or does not accurately explain the development of this country. Begin by reviewing your country’s information on the CIA World Factbook website. From there, you may use atlases, encyclopedias and online sources of information to finish your research. Use the following questions to guide your research.
- Was your country a colony? If so, which country colonized it?
 - When did this country gain independence?
 - What product(s) did this country provide its colonizer?
 - Does it still produce mainly those same products today, or has its economy diversified since independence?
 - Look at a transportation map of this country. Does the transportation network function primarily to deliver goods to foreign markets, or has it been developed throughout the country?
 - What economic sector (agriculture, industry or service) provides most of the country’s GDP?
 - In what economic sector do most of the people work?
 - What are the primary products of export now and who are the major trading partners?
 - Does this country seem to be advancing economically since independence?
 - If so, what factors have made it successful?
 - If not, what factors have limited it?
 - Look at cultural maps – religion, ethnicity, etc. Also investigate ethnic conflicts this country has experienced – were these the result of colonial boundaries? Have these conflicts affected the country’s ability to prosper?
 - Look up photos of the country online. Does development seem evenly distributed? Why or why not?
- III. Answer your guiding question: After completing your research, prepare an answer to the lesson’s guiding question as it applies specifically to your country. Be prepared to share your information with the class.

How can we use Rostow’s Model of Economic Development to understand the economic development of places, and what are the limitations of using this model?

UNIT VII: Cities and Urban Land Use

Unit VII Summary

Unit VII in AP Human Geography divides the study of cities into two general subfields. The first approach examines cities as systems and thus focuses on urban location patterns and the reasons why cities are located where they are. This part of Unit VII examines the political, economic, and cultural functions of cities; their transportation and communication systems; and theories such as the gravity model, rank size rule, and Central Place theory.

The second subfield is centered on understanding urban landscapes, form and internal structure, and livability of urban places. This provides opportunities for students to learn more about topics such as urban land use models, ethnic and racial segregation, historical and contemporary urban architecture, urban transport systems, and models of internal city structure. Like all of the other units in the AP geo course, the related Ambrose video summarized below provides an ideal way for teachers to provide visual evidence of each of the urban topics, themes, models, and landscapes for the students enrolled in their AP Human Geography course.

Video Program 7 (on Disc 4): *Cities and Urban Land Use*

Program 7 Summary

This exciting video analyzes the location patterns of cities on Earth in the past and present and discusses the organization, structure, and function of cities in a global world. The origin and diffusion of five major urban hearth areas on Earth are then discussed and mapped to provide viewers with information about the spread of the world's earliest cities. Following this foundational look at the key themes and concepts in urban geography, other related topics and case studies are presented such as (1) the impact of feudalism and other new economic and political systems on fostering societal stratification that ultimately led to the ongoing expansion of urbanization in certain parts of the world; (2) the impact of the Industrial Revolution on the spread and growth of cities; and (3) how cities today are centers of innovation and globalization.

Along the way, Video Program # 7 compares and contrasts urban land use models conceptualized by geographers such as Christaller, Burgess, Hoyt, and Harris and Ullman that are made real by a series of sketches, maps, and other graphics – and a field trip to Portland, Oregon. A field walk in this “green” Pacific Northwest city offers a vivid reminder of the importance (and enjoyment!) of studying urban places from a geographic perspective.

Chapters/topics featured on this Program:

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

UNIT VII – Teaching Materials

Lesson Plan – “A World of Cities”

To accompany Video Program 7: *Cities and Urban Land Use*

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic of *Cities and Urban Land Use*. To help introduce the topic, students will view Program 7: *Cities and Urban Land Use*, part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth*. While viewing the program, students will take notes on the attached Cornell note guide focusing on the main ideas of the Human Geography discipline. Basic comprehension questions and critical thinking questions are included for each chapter of the program. Students should have additional time at the end of each chapter to complete the critical thinking questions. After the program is complete, class discussion will follow to check understanding.

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic of *Cities and Urban Land Use*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in Program 7.

VII. Cities and Urban Land Use

- A. Development and character of cities
 - 1. Origin of cities
 - 2. Rural-urban migration and urban growth
 - 3. Global cities and megacities
 - 4. ~~Suburbanization and edge cities~~
- B. Models of urban systems
 - 1. ~~Rank size rule~~
 - 2. Central place theory
 - 3. ~~Gravity model~~
- C. Models of internal city structure
 - 1. Concentric zone model
 - 2. Sector model
 - 3. Multiple-nuclei model
 - 4. ~~Changing employment mix~~
 - 5. Changing demographic and social structures
 - 6. ~~Uneven development, ghettoization, and gentrification~~
- D. Built environment and social space
 - 1. ~~Housing~~
 - 2. Transportation and infrastructure
 - 3. Political organization of urban areas
 - 4. Urban planning and design
 - 5. Patterns of race, ethnicity, gender, and socioeconomic status

Time Needed: One 55 minute class period

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 7: *Cities and Urban Land Use*
- Program 7 Student Video Guide
- KWL handout

National Geography Standards:**The World in Spatial Terms**

3. How to analyze the spatial organization of people, places, and environments on Earth's surface

Human Systems

9. The characteristics, distribution, and migration of human populations on Earth's surface
12. The processes, patterns, and functions of human settlement

Environment and Society

14. How human actions modify the physical environment

Starting the Lesson:

Students will begin class with a short small group warm-up activity that will transition into a full class discussion for students to begin thinking about this class' topic. Each student will receive a KWL handout to complete with a neighbor. In their small groups, students will complete the K- What I Know? and W- What I Want to Know? regarding urbanization. When finished, the class will discuss as a group.

The Lesson:

Pass out the student video guide and watch Program 3 *Understanding Human Culture*

Note to Instructor: While watching the video, make sure to stop after each chapter to give students enough time to respond to their critical thinking questions on their guide. The video guide is organized to follow the chapters of the program, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. Program 3 lasts 28 minutes.

End the Lesson:

The lesson will end with a class discussion summarizing the video program clarifying students' questions. Review each program chapter's critical thinking questions. Return to the KWL activity and complete the last portion, L-What I Have learned? With ideas gained from the video.

Instructor Reflection:

K: What I know?

W: What I want to know?

L: What I have learned?

Student Viewing Guide

To accompany Video Program 7: Cities and Urban Land Use

Directions: While you are viewing this episode, you will use the left side of the table to take abbreviated notes and the right side of the table to answer the corresponding questions for each section of the video. After the video, complete the summary section at the bottom to identify the overall idea.

Notes	
1. Urban Landscapes (3:40 min)	<p>a) List examples of different types of cities.</p> <p>Critical Thinking: Each city has a shared function. Describe your local urban center's function.</p>
2. Origins of Urbanization (1:32 min)	<p>a) Identify the five hearths of urbanization. Indus Valley, _____, Nile Valley, Huang He River Valley, _____</p> <p>b) List the common factors of early urbanization. Emergence of a _____, stratification of society, occupational specialization, _____ and spatial organization</p> <p>Critical Thinking: How did your local urban area develop?</p>
3. Urbanization Diffusion (2:30 min)	<p>a) Choose one of the five urban hearths and describe its diffusion.</p> <p>b) Describe the significance of the location of the Acropolis in Ancient Athens.</p>
4. Feudalism (1:38 min)	<p>a) What was unique about European feudalism?</p> <p>Critical Thinking: Evaluate whether remnants of feudal order exist in society today?</p>
Summary	

Notes	
5. The Industrial Revolution (2:13 min)	<p>a) The success of early industrial cities in America depended upon which element?</p> <p>b) As industrial centers increase, what aspect needed to be addressed to accommodate labor? .</p> <p>Critical Thinking: What would cities be today had the Industrial Revolution not occurred? Explain.</p>
6. Urban Land-Use Models (4:14 min)	<p>a) Provide an example for the following urban land use models</p> <ul style="list-style-type: none"> i. Burgess' Concentric Zone Model: ii. Hoyt's Sector Model: iii. Harris and Ullman's Multiple Nuclei Model: <p>b) Explain why models change over time.</p> <p>Critical Thinking: Assess and explain whether many urban locations still follow the multiple nuclei today or is this model also shifting.</p>
7. Urban Spaces (7:18 min)	<p>a) Explain what makes American urban zoning procedure unique.</p> <p>b) Identify what makes Portland unique when compared to other American cities?</p> <p>Critical Thinking: Very few American cities have planned for green space historically. Hypothesize the arguments that may exist against including green space in urban areas?</p>
8. Future Urbanization (3:03 min)	<p>a) Describe the current trend of population migration. Urban to rural, rural to urban, or the trend is a balanced migration or in-migration = out-migration in urban areas.</p> <p>b) Explain the role the urban environment plays in human geography?</p> <p>Critical Thinking: Predict whether there will be an out-migration trend from urban settings in your lifetime.</p>
Summary	

Student Viewing Guide
To accompany Video Program 7: Cities and Urban Land Use
 (Answer sheet)

Notes	
1. Urban Landscapes (3:40 min)	<p>c) List examples of different types of cities. Port cities, capitals, college towns, Industrial cities, hospital towns, mining towns, resort towns</p> <p>Critical Thinking: Each city has a shared function. Describe your local urban center's function. Answers will vary.</p>
2. Origins of Urbanization (1:32 min)	<p>d) Identify the five hearths of urbanization. Indus Valley, Mesopotamia, Nile Valley, Huang He River Valley, Mesoamerica</p> <p>e) List the common factors of early urbanization. Emergence of a ruling class, stratification of society, occupational specialization and surplus agriculture, spatial organization</p> <p>Critical Thinking: How did your local urban area develop? Answers will vary.</p>
3. Urbanization Diffusion (2:30 min)	<p>b) Choose one of the five urban hearths and describe its diffusion. Mesoamerica-diffused north into American Southwest with cliff dwellings, then into the Mississippi River watershed with mound builder city states. Nile Valley-diffused south along the coast of Africa with Greek city states. Mesopotamia-diffused outward into southwest Asia and southern Europe with Greek city states</p> <p>c) Describe the significance of the location of the Acropolis in Ancient Athens. The center for religion and government was highest point in city with special function land use areas located around and below Acropolis.</p>
4. Feudalism (1:38 min)	<p>c) What was unique about European feudalism? Mercantile and industrial Europe further stratified society and space.</p> <p>Critical Thinking: Evaluate whether remnants of feudal order exist in society today? Answers will vary.</p>
Summary	

Notes	
5. The Industrial Revolution (2:13 min)	<p>d) The success of early industrial cities in America depended upon which element? Access of transportation networks, access to waterways.</p> <p>e) As industrial centers increase, what aspect needed to be addressed to accommodate labor? Places to live.</p> <p>Critical Thinking: What would cities be today had the Industrial Revolution not occurred? Explain. Answers will vary.</p>
6. Urban Land-Use Models (4:14 min)	<p>c) Provide an example for the following urban land use models</p> <ul style="list-style-type: none"> i. Burgess' Concentric Zone Model: Chicago ii. Hoyt's Sector Model: Chicago and other large cities in North America iii. Harris and Ullman's Multiple Nuclei Model: Los Angeles <p>b) Explain why models change over time. Place changes which makes previous models obsolete</p> <p>Critical Thinking: Assess and explain whether many urban locations still follow the multiple nuclei today or is this model also shifting. Answers will vary.</p>
7. Urban Spaces (7:18 min)	<p>a) Explain what makes American urban zoning procedure unique. Everything has a specific area, not many functions of a city are intermixed on a grid system.</p> <p>b) Identify what makes Portland unique when compared to other American cities? Trade accessibility for an inland city, modern transportations systems, green space, unique ethnic neighborhoods</p> <p>Critical Thinking: Very few American cities have planned for green space historically. Hypothesize the arguments that may exist against including green space in urban areas? Wasted space where a profitable or more productive function could exist. Answers will vary.</p>
8. Future Urbanization (3:03 min)	<p>a) Describe the current trend of population migration. For example, there is more urban to rural migration, rural to urban, or the trend is a balanced migration or in-migration = out-migration. 65% urban and growing</p> <p>b) Explain the role the urban environment plays in human geography? It is the epicenter of the development of human population</p> <p>Critical Thinking: Predict whether there will be an out-migration trend from urban settings in your lifetime. Answers will vary.</p>
Summary	

Lesson Plan 2 – “The City of Tomorrow: A Shifting Urban Landscape”

To accompany Video Program 7: *Cities and Urban Land Use*

Grade Level: Grades 9-12

Lesson Summary: This lesson corresponds with the College Board’s AP Human Geography topic of *Cities and Urban Land Use*. As a result of this lesson, students will learn about key elements of urbanization, particularly about the different functions of cities. To help students better understand this topic, scenes from Program 7 *Cities and Urban Land Use*, part of the Ambrose Video series, *Human Geography: Making Sense of Planet Earth* will be shown. In addition to viewing video segments, students will also learn about urbanization by completing interactive, analysis-driven activities and class discussion to analyze the functions and organization of cities over time.

Curriculum Connection: This lesson serves as an introduction to the College Board’s AP Human Geography topic of *Cities and Urban Land Use*. The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed.

VII. Cities and Urban Land Use

- A. Development and character of cities
 - 1. Origin of cities
 - 2. Rural-urban migration and urban growth
 - 3. Global cities and megacities
 - 4. ~~Suburbanization and edge cities~~
- B. Models of urban systems
 - 1. ~~Rank size rule~~
 - 2. Central place theory
 - 3. ~~Gravity model~~
- C. Models of internal city structure
 - 1. Concentric zone model
 - 2. Sector model
 - 3. Multiple-nuclei model
 - 4. ~~Changing employment mix~~
 - 5. Changing demographic and social structures
 - 6. ~~Uneven development, ghettoization, and gentrification~~
- D. Built environment and social space
 - 1. ~~Housing~~
 - 2. Transportation and infrastructure
 - 3. Political organization of urban areas
 - 4. Urban planning and design
 - 5. Patterns of race, ethnicity, gender, and socioeconomic status

Time Needed: One 55 minute class period

Materials Needed:

- Ambrose Video - “Human Geography: Making Sense of Planet Earth – Program 7: *Cities and Urban Land Use*”
- Book- *New Providence: A Changing Cityscape* by Tscharnier and Fleming
- New Providence Observations activity/note sheet
- Urban Land Use Models (3 large images of each model, 1 per group)

- Urban Land Use Model note sheet (3 small images of models for students to take notes around)

National Geography Standards:

The World in Spatial Terms

3. How to analyze the spatial organization of people, places, and environments on Earth's surface

Human Systems

9. The characteristics, distribution, and migration of human populations on Earth's surface
12. The processes, patterns, and functions of human settlement

Environment and Society

14. How human actions modify the physical environment

Starting the Lesson:

1. Activity- Students will begin class with a short group bell ringer jigsaw activity that will transition into the day's lesson. To review the three key Urban Land Use models, each group will have an image of their assigned model excluding any information. Each group's task will be to write down supporting information from their notes over Cities and Urban Land Use to define each model.
 - a. Once groups have finished, the groups will subdivide or "jigsaw" one expert per new group to teach their new group about their model. Passing and copying notes is not permitted, students must teach the material to their peers who will then take notes on the significant information.
2. Discussion- As a class, hold a conversation about the purpose and necessity of designated functions within a city.
 - a. Then, use your local urban center as an example, draw a map of the city and identify the location of its various functions.
 - b. Identify which of the three key models this example best fits.
 - c. Have students hypothesize whether or not the function of the city will remain the same for years to come.
 - d. What will this city look like in 2050?

The Lesson:

1. Video- View Program 7: *Cities and Urban Land Use* Chapter 7 Urban Spaces (7:18 min) and Chapter 8 Future Urbanization (3:03 min)
 - a. As students view the two chapters from Program 7, ask them to make a comparison and contrast chart to assess the similarity of what is being described in the video with their local urban area.
 - b. Discuss responses as a class after video is completed.
2. Activity- Show the six images from the book, *New Providence: A Changing Cityscape* using a presenter or projector to show an example of differing urban land uses over time.
 - a. Students will work in groups and analyze each image of New Providence noting how the town changed over the course of the different year samplings including 1910, 1935, 1955, 1970, 1980 and 1987. For each image, students will record their groups' observations on the corresponding note sheet (left column only.)
 - b. Once completed, teacher will read the accompanying description from the book about each year's image. Students will then take notes in the right column on the note sheet under class discussion.
 - c. Once finished, ask students which item they tracked the most throughout the images and why.
 - d. Ask students if urban areas have changed much from 1987, the last year of the book to today.

Ending the Lesson:

The lesson will conclude with an explanation of homework. Students will need to complete the remainder of the note sheet, brainstorming and drawing a scene in color for New Providence in the current year and also for 2050. Students will share their images in their groups during the next lesson.

Instructor Reflection:**Resources:**

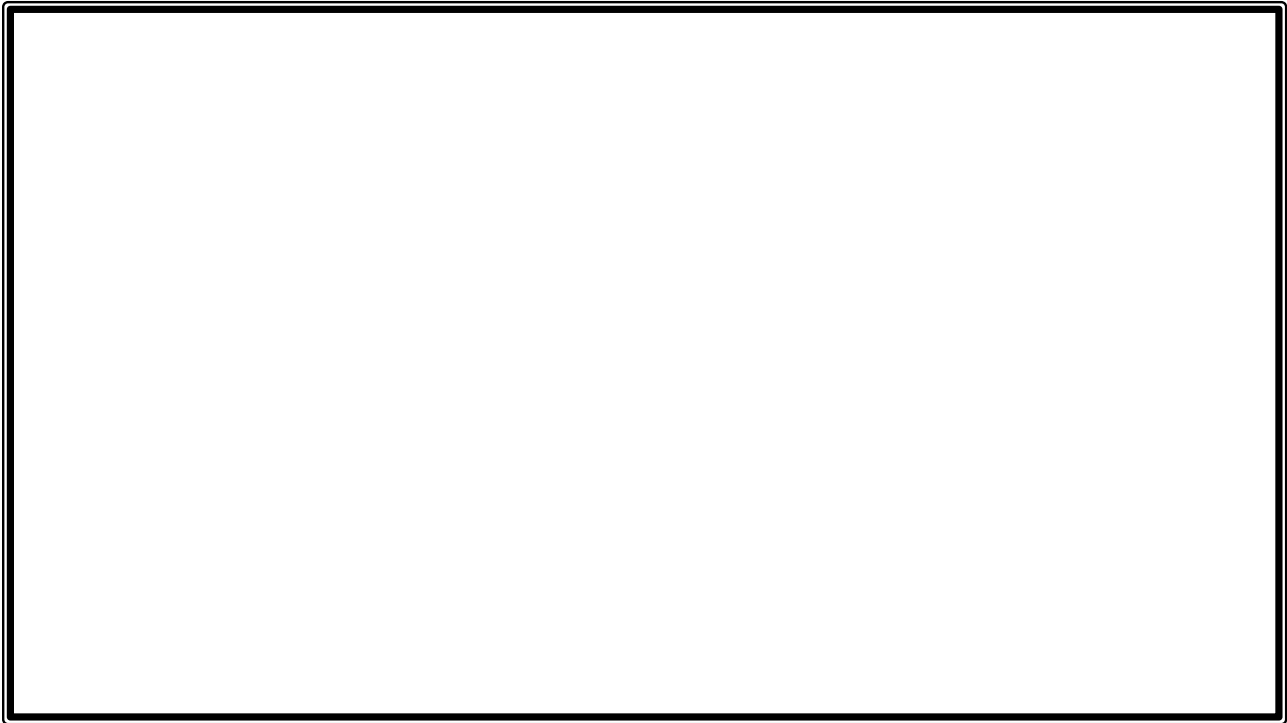
Von Tscharnier, Renata, and Ronald Lee Fleming. *New Providence: A Changing Cityscape*. San Diego: Gulliver Books, 1987.

	Initial Group Observations	Class Discussion
1910		
1935		
1955		
1970		
1980		
1987		

New Providence Observations



Current Year



2050

Bonus Wrap-Up Unit: GLOBAL ISSUES

This final wrap-up unit, and the two lesson plans that accompany it in this *AP Human Geography Teacher's Guide*, provide an opportunity for students to reflect on what they have learned in the AP Human Geography course and also learn more about how geographic skills and the geographic perspective can be used to solve “real world” challenges. Reserving time in your AP class for this final review will provide students with an opportunity to review all of the key geographic concepts and skills covered in the AP Human Geography course. This is critical to help them prepare for the College Board’s AP Human Geography exam. In addition, viewing this final video program in the Ambrose *Human Geography: Making Sense of Planet Earth* series, (and completing the interactive lessons provided in this final unit), will help AP Human Geography students more deeply understand the power of geographic thinking for helping solve major challenges on Earth such as global climate change.

Bonus Video Program 8 (on Disc 4): *Confronting Future Challenges*

This final bonus video is the culminating program included in the Ambrose *Human Geography* series. Although it is not linked specifically to a precise AP Human Geography unit like the each of the other videos discussed on prior pages, Video Program 8 provides a compelling wrap-up for an AP Human Geography course.

Each of the geographical issues and topics featured in this dynamic final video program will help students understand the critical importance of the geographic perspective for Earth’s survival. Global issues such as the protection of species biodiversity, global climate change, social inequality, and urban sprawl as discussed here are only a few of the many challenges facing the planet in the 21st century. As Earth’s natural environment continues to be affected by a series of negative human impacts during the current post-Industrial Anthropocene era, attention to these and other critically important issues will continue to resonate in student’s lives now and in the years to come. Specific topics covered in each of the chapters featured in this video program are listed below.

Chapters/topics featured on this Program:

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

Bonus Wrap-Up Unit: Teaching Materials

Confronting Future Challenges

Lesson Plan 1: Wrap-up Review Lesson (to help prepare for the College Board AP Human Geography Exam)

To accompany Video Program 8: *Confronting Future Challenges*

Grade Level: 9-12

Lesson Summary: In this lesson, students will view a short video introducing the topic of future global challenges and how geography can help solve them. While viewing, the students will complete a viewing guide covering the major topics in the video. The viewing guide contains a modified form of Cornell Notes and is intended to assist students with learning how to take notes during a video presentation. Upon completing the video, the students will complete an activity (in another lesson) demonstrating understanding of the content of the film.

Curriculum Connection: While the information in this video does not cover a discrete unit within the AP Human Geography Course Outline, the topics presented cover information from most of the other units. As such, this video and the accompanying lesson could be utilized as review material for the exam. Since the Free Response Section of the exam often covers multiple topics, this material would provide excellent material for practicing FRQ responses. Alternatively, this unit may be taught after the exam is taken as a culminating unit for the course. This lesson is designed to be used at the beginning of either a review or an individual unit.

Time Needed: One 55 minute class period

Materials Needed:

- “Human Geography: Making Sense of Planet Earth – Program 8: Confronting Future Challenges”
- DVD
- “Confronting Future Challenges” Student Viewing Guide – one per student
- Computer with projection device and Google Earth
- “Recent Earthquakes Data Table USGS” – an example is included with the lesson, but a current data table can be downloaded from the USGS; the link is listed under Resources.
- “Recent Earthquakes Map USGS” kml file – an example is included with the lesson, but a current kml file can be downloaded from the USGS; the link is listed under Resources.

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in this lesson.

APHG Topic Outline:

- I. Geography: Its Nature and Perspectives 5–10%
 - A. Geography as a field of inquiry
 - B. ~~Evolution of key geographical concepts and models associated~~

- ~~with notable geographers~~
- C. Key concepts underlying the geographical perspective: location, space, place, scale, pattern, regionalization, and globalization
 - D. Key geographical skills
 1. How to use and think about maps and spatial data
 2. How to understand and interpret the implications of associations among phenomena in places
 3. How to recognize and interpret at different scales the relationships among patterns and processes
 4. How to define regions and evaluate the regionalization process
 5. How to characterize and analyze changing interconnections among places
 - E. Geographic technologies, such as GIS, remote sensing, and GPS
 - F. Sources of geographical ideas and data: the field, census data, and satellite imagery

National Geography Standards:

The World in Spatial Terms

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
2. How to use mental maps to organize information about people, places, and environments in a spatial context.
3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Environment and Society

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.

The Uses of Geography

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

Starting the Lesson: ((10 minutes)

Focus Activity: Display the "Recent Earthquakes Data Table USGS". Tell the students that this information shows the location, magnitude and time of earthquakes which occurred over a 7 day period across the globe. Ask students to look at the table and discuss what the information tells them about recent earthquakes. Is this information easy to process? Does it make understanding the patterns of earthquake occurrences easier? Now display the "Recent Earthquakes Map USGS" in Google Earth. Make sure to zoom in to the layers so the earthquakes are visible. Rotate and spin the globe so students can see all of the earthquake points. Click on several points to show students the information stored for each point. Discuss how this display of the same information is different than the data table. What advantages does this display have over the data table? What advantages does the data table have? What disadvantages does each display have? Which would be most helpful in understanding where large earthquakes occur?

The Lesson: (40 minutes)

Distribute the student viewing guide. Discuss with the students that geographic inquiry is a way of studying and understanding many complex situations in the world. After completing this video, students should be able to answer the guiding question:

How can geography and geographic inquiry help us understand past events and solve future challenges?

Watch Program 8 “Confronting Future Challenges” from the “Human Geography: Making Sense of Planet Earth” video series

Note to Instructor: While watching the video, make sure to stop periodically (or as students ask) to give students enough time to complete their answers on the viewing guide. The viewing guide is designed to follow the chapter or scenes on the DVD, so the instructor might consider viewing the DVD from the scene selection menu, since the video will stop at the end of each scene and return to the menu – allowing students a chance to complete their notes for each section. The video is only 28 minutes – time has been added to this section of the lesson to allow for stopping and starting.

Ending the Lesson: (5 minutes)

Closing activity: With the remaining class time (and for homework, as needed), have the students review their notes from the film. Have them clarify anything in their notes which they found confusing, label topics or main ideas, write questions, or add any additional information they would like to add in the left hand column. Finally, they should complete the summary section at the bottom by answering the guiding question.

Resources:

USGS <http://earthquake.usgs.gov/earthquakes/map/>

Excerpt from “Recent Earthquake Data Table USGS” Feb 1, 2013

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	DateTime	Latitude	Longitude	Depth	Magnitude	MagType	NbStation	Gap	Distance	RMS	Source	EventID	Version
2	2013-02-0	-6.8434	129.5571	156.11	4.4	mb	27	62	2.07	1.21	us	usc000ezp	1.36E+12
3	2013-02-0	-24.0765	-66.9065	179.46	4.7	mb	43	44	2.35	1.47	us	usc000ezp	1.36E+12
4	2013-02-0	-0.1816	123.0677	124.91	4.9	mb	132	38	0.9	1.2	us	usc000ezp	1.36E+12
5	2013-02-0	35.5505	139.958	71.95	4.8	mb	41	91	1.73	0.76	us	usc000ezh	1.36E+12
6	2013-02-0	35.6665	-121.073	6.8	3.1	MI		90	0.071865	0.08	nc	nc719330	1.36E+12
7	2013-02-0	38.4965	142.3438	50.66	4.4	mb	27	141	3.57	0.82	us	usc000ezl	1.36E+12
8	2013-02-0	-26.5598	-178.987	368.1	4.7	mb	185	44	2.83	0.69	us	usc000ezk	1.36E+12
9	2013-02-0	67.7565	-143.777	7.5	3.5	MI	32	223.2	0.418615	0.66	ak	ak106486	1.36E+12
10	2013-02-0	31.8625	-116.191	8.4	2.5	MI		216	0.251528	0.53	ci	ci1527980	1.36E+12
11	2013-02-0	48.2846	154.6969	35.95	4.7	mb	181	53	5.19	0.94	us	usc000ezj	1.36E+12
12	2013-02-0	60.073	-153.161	0.1	3.1	MI	39	90	0.017966	1.11	ak	ak106485	1.36E+12
13	2013-02-0	59.2405	-142.739	0.5	3.2	MI	43	205.2	1.325913	0.83	ak	ak106485	1.36E+12
14	2013-02-0	47.4805	81.1063	16.24	4.5	mb	90	51	0.9	0.62	us	usc000ezj	1.36E+12
15	2013-02-0	18.184	-67.4032	9	2.8	Md	16	291.6	0.251528	0.18	pr	pr130320	1.36E+12
16	2013-02-0	-11.09	165.5377	9.35	6	Mwc	278	29	5.74	0.79	us	usc000ezil	1.36E+12
17	2013-02-0	59.9992	-153.05	6.5	2.6	MI	27	100.8	0.023356	0.72	ak	ak106484	1.36E+12
18	2013-02-0	60.0158	-152.911	0.1	2.8	MI	33	97.2	0.053899	0.77	ak	ak106484	1.36E+12
19	2013-02-0	-6.9508	147.6674	34.79	5.9	Mwp	124	55	4.88	1.45	us	usc000ezh	1.36E+12
20	2013-02-0	-10.9845	165.4756	29.79	4.9	mb	128	76	5.65	0.61	us	usc000ezh	1.36E+12

Screen Clipping from “Recent Earthquakes Map USGS” kml file



Confronting Future Challenges - Student Video Viewing Guide

While you are viewing the video “Confronting Future Challenges”, you will use the right hand side of the table to take notes – these are notes, so you can use abbreviations, bulleted lists, etc. After you have completed the video, use the left hand column to list main ideas, topics, questions, or other info you feel is necessary. Finally, in the bottom section, write a summary of the film and explain the relationship between power and place.

1. Strategic Directions for the Geographical Sciences (4 min)	a) How can geographic analysis help us understand disasters?
2. Species Extinction and Biodiversity Loss (4 min)	a) How has the tall grass prairie been altered? b) How do economic activities affect resources? c) What are three ways to utilize resources responsibly? d) When considering how to protect biodiversity, what other factors need to be considered?
3 The Anthropocene Era (2 min)	a) When did the Anthropocene Era begin? b) What are the primary characteristics of this era?
4. Climate Change (3 min)	a) How does climate change affect different places? b) The challenges we face are all tied to which major geographic factors? c) What is the key feature of this era?
5. Globalization (3 min)	a) How does globalization affect different places? Does it make them more “flat” or more “lumpy”?

6. Economic Inequalities (3 min)	<p>a) In addition to wealth, what other factors of economic progress are unevenly distributed?</p> <p>b) What types of countries are the most “uneven”? What factor plays a large role in this unevenness?</p>
7. Food Production and Distribution (7 min)	<p>a) How can we use maps at different scales to study the “haves” and the “have nots”?</p> <p>b) What is a major concern with the current method of monocropping in agriculture?</p> <p>c) Describe a “luxury” diet.</p> <p>d) How does geospatial technology help us organize information? How does this help us understand information better?</p>
Summary	

Confronting Future Challenges - Student Viewing Guide

(Answer sheet)

1. Strategic Directions for the Geographical Sciences (4 min)	<p>a) How can geographic analysis help us understand disasters? Geography is a survival science, it can help us understand the many complex issues surrounding the causes and effects of a disaster. We use maps to make predictions and solve problems.</p>
2. Species Extinction and Biodiversity Loss (4 min)	<p>a) How has the tall grass prairie been altered? It has been converted into corn and soybean farms.</p> <p>b) How do economic activities affect resources? They can lead to loss of resources – especially resources we do not value.</p> <p>c) What are three ways to utilize resources responsibly?</p> <ul style="list-style-type: none"> • Manage and develop resources for use by current population • Protect resources for future generations • Distribute the benefits of the resources to everyone <p>d) When considering how to protect biodiversity, what other factors need to be considered? Protection must be place-specific; economic and social benefits need to be taken into consideration, too.</p>
3 The Anthropocene Era (2 min)	<p>a) When did the Anthropocene Era begin? At the beginning of the Industrial Revolution</p> <p>b) What is the primary characteristic of this era? Humans are the primary agents of change in the earth's environment</p>
4. Climate Change (3 min)	<p>a) How does climate change affect different places? Places along the shore will be more affected by rising water levels, while places in the southwest will be more affected by loss of snowmelt to feed their rivers.</p> <p>b) The challenges we face are all tied to which major geographic factors? Uneven distribution of economic activities, wealth, healthcare, power, knowledge, access to resources, caregiving, and patterns of ethnic, social and geopolitical affiliation.</p> <p>c) What is the key feature of this era? Globalization – tendency towards flattening and tendency toward lumpiness</p>
5. Globalization (3 min)	<p>a) How does globalization affect different places? Does it make them more “flat” or more “lumpy”? Places that are different become connected in order to share resources. This makes them more flat as they adopt technologies and innovations from each other. But, places become more different as they specialize – one place is better for mining, another for manufacturing.</p>

6. Economic Inequalities (3 min)	<p>a) In addition to wealth, what other factors of economic progress are unevenly distributed? Access to clean water, health care, adequate calories, freedom from oppression</p> <p>b) What types of countries are the most “uneven”? What factor plays a large role in this unevenness? Really wealthy countries like the US, moderate countries like Brazil; politics in a country plays a large role in redistributing wealth through taxation.</p>
7. Food Production and Distribution (7 min)	<p>a) How can we use maps at different scales to study the “haves” and the “have nots”? At one scale, a country or a state may appear to have an even distribution of wealth, but another scale may reveal more unevenness.</p> <p>b) What is a major concern with the current method of monocropping in agriculture? Monocrops are highly susceptible to declines caused by climate change or disease.</p> <p>c) Describe a “luxury” diet. High protein, regularity in availability of food, any fruit or vegetable in any season, choice and variety</p> <p>d) How does geospatial technology help us organize information? How does this help us understand information better? Information is organized by location, so multiple topics can be studied together.</p>
Summary	
Answers will vary	

Lesson 2: Creating a Collaborative “Global Challenges” Documentary

Grade Level: 9-12

Lesson Summary: In this lesson, students will produce a short video investigating one particular global challenge and how geography can help solve it. Students will utilize a variety of technologies to conduct research, prepare a map and create a 5 minute video for class presentation.

Curriculum Connection: This lesson would be an excellent culminating activity at the end of an AP Human Geography class – after the students have completed the exam.

Time Needed: One to two weeks

Materials Needed:

- “Human Geography: Making Sense of Planet Earth – Program 8: Confronting Future Challenges” DVD
- “Global Challenges Documentary” Student Guide – one per student
- Computer lab with Internet Access, headphones and microphones
- Google Earth – this is a free download. Link is listed under resources.
- Photo Story 3 – this is a free download. Link is listed under resources. Tutorial sites are also listed.
- Microsoft Excel – or any spreadsheet software you already have

Geography Standards:

The specific content areas for this topic include the following listed. The sub-topics with “strikethroughs” are not specifically addressed in this lesson.

APHG Topic Outline:

- I. Geography: Its Nature and Perspectives 5–10%
 - A. Geography as a field of inquiry
 - ~~B. Evolution of key geographical concepts and models associated with notable geographers~~
 - C. Key concepts underlying the geographical perspective: location, space, place, scale, pattern, regionalization, and globalization
 - D. Key geographical skills
 - 1. How to use and think about maps and spatial data
 - 2. How to understand and interpret the implications of associations among phenomena in places
 - 3. How to recognize and interpret at different scales the relationships among patterns and processes
 - 4. How to define regions and evaluate the regionalization process
 - 5. How to characterize and analyze changing interconnections among places
 - E. Geographic technologies, such as GIS, remote sensing, and GPS
 - F. Sources of geographical ideas and data: the field, census data, and satellite imagery

National Geography Standards:

The World in Spatial Terms

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
2. How to use mental maps to organize information about people, places, and environments in a spatial context.
3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Environment and Society

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.

The Uses of Geography

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

Starting the Lesson: ((Day One: 10 minutes)

Focus Activity: Have each student review notes from “Confronting Future Challenges” DVD. Have them make a list of 5 to 10 challenges the world currently faces and will continue to face in the future. Have students share their list with the class – post some on the board, if desired. As a group, discuss how geography and geographic skills and technology can help us solve these issues.

The Lesson: (Day One: Remaining class time)

Handout the Getting Started Guide. Have students open Google Earth and scroll down to the “Global Awareness” Database. Give them time to investigate several of the themes listed here and decide upon 2 or 3 they are most interested in studying.

Using their desired topics, divide the students into groups of 3.

Research: (Day Two and Three: Entire period)

Hand out the Research Guide. Give students both days (and time at home, if necessary) to complete the Research Guide using Google Earth. Students can access the links they find for more information. While they are investigating, they should be narrowing down the places associated with their theme to 10 to 15. Make sure they “pin” each place, so they will remember which places they have selected. These will be the focal point of their documentary.

Map-Making (Day Four: Entire period)

Hand out the Map-Making Guide. Students will transfer the information for their selected places from Google Earth into Microsoft Excel and then into Google Fusion to create a map of their locations for their presentation.

Photo Collection and Story Writing (Day Five and Six)

Hand out the Storyboard Guide. Students will write the script for their production and collect photos. They can use screen shots from Google Earth, as well as other photo sources. In addition, they should use the map they created.

Production: (Day Seven and Eight)

Hand out the Production Guide. Students will use their pictures to create a PhotoStory slide show. They will then record their script and create their documentary.

Screen Debut: (Day Nine and Ten)

Hand out the Geo-Doc Awards Guide. Students will view each other's documentaries and nominate them for awards.

Ending the Lesson: (5 minutes)

Award Ceremony: Tabulate and announce the results of the class vote for Best Geo-Doc.

Assessment:

Each "Guide" is set up to be a daily (or every other day) check to determine each group's progress. These can be a daily grade, if desired.

For assessing the final project, the teacher may use the "Rating Guide" on the "Geo-Doc Awards Guide" to grade the completed film. Simply multiply the points by 10 to arrive at a final grade for the group's project.

Resources:

Google Earth <http://www.google.com/earth/index.html>

Photo Story 3 <http://www.microsoft.com/en-us/download/details.aspx?id=11132>

Photo Story Tutorial Videos <http://www.jakesonline.org/photostory.htm>

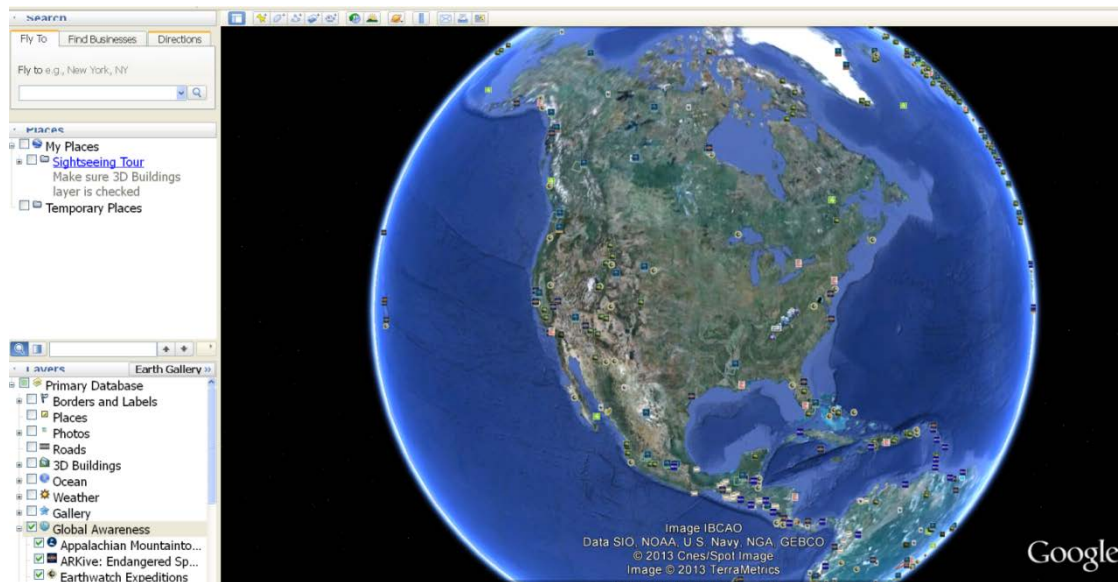
Photo Story Tutorial Information <http://digitalstorytelling.coe.uh.edu/photostory.html>

Lesson 2 Confronting Global Challenges Documentary Student Guide

Day One: Getting Started

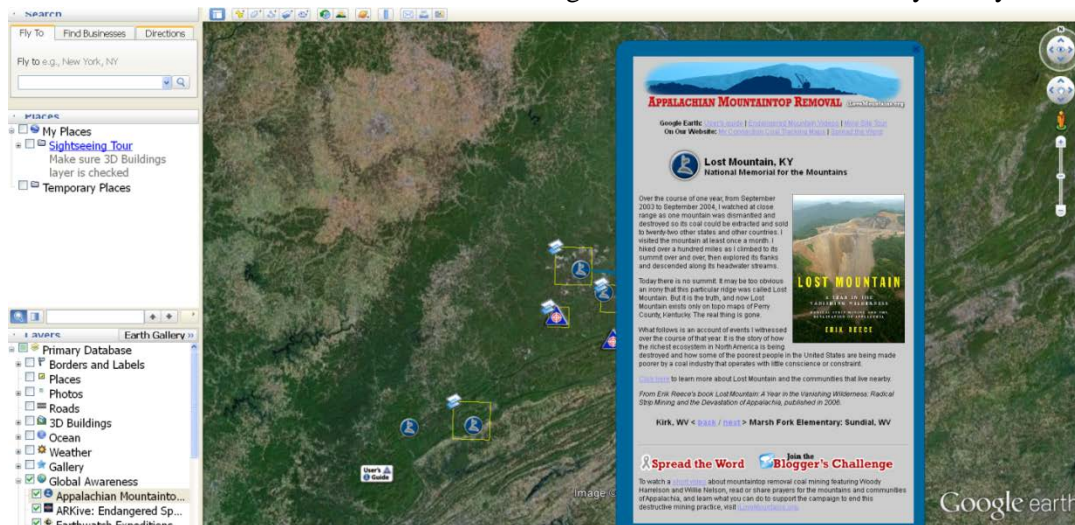
You will be part of a team of students producing a documentary covering a major challenge faced by the world today. In today's lesson, you will use Google Earth to investigate some major issues and determine which challenges you would most like to study.

- I. Open Google Earth.
 - If it is not loaded on your computer, check with your teacher first, then you may download it from <http://www.google.com/earth/index.html>.
- II. Once Google Earth is running, scan down the left side of the screen until you see the “Primary Database” list.
 - Under that you should see “Global Awareness”. Check this layer only.
 - If the other layers are check, uncheck them.
 - Click on the + next to “Global Awareness” to expand all of the layers.



III. Explore the different layers by double clicking each one. You will zoom in to one feature of the layer.

- Click on the feature to see the dialog box associated with it. (The symbol will match the symbol next to the name of the layer.)
- You may click on any of the links in the dialog box for more information.
- You may find it easier to examine each layer if you uncheck all of the other layers.
- You will need to zoom out and move the globe to see more features in your layer.



IV. After you have examined several of the layers, list the three topics which interest you the most. Your teacher will use this list to assign your group.

- 1.
- 2.
- 3.

Confronting Future Challenges Documentary Student Guide

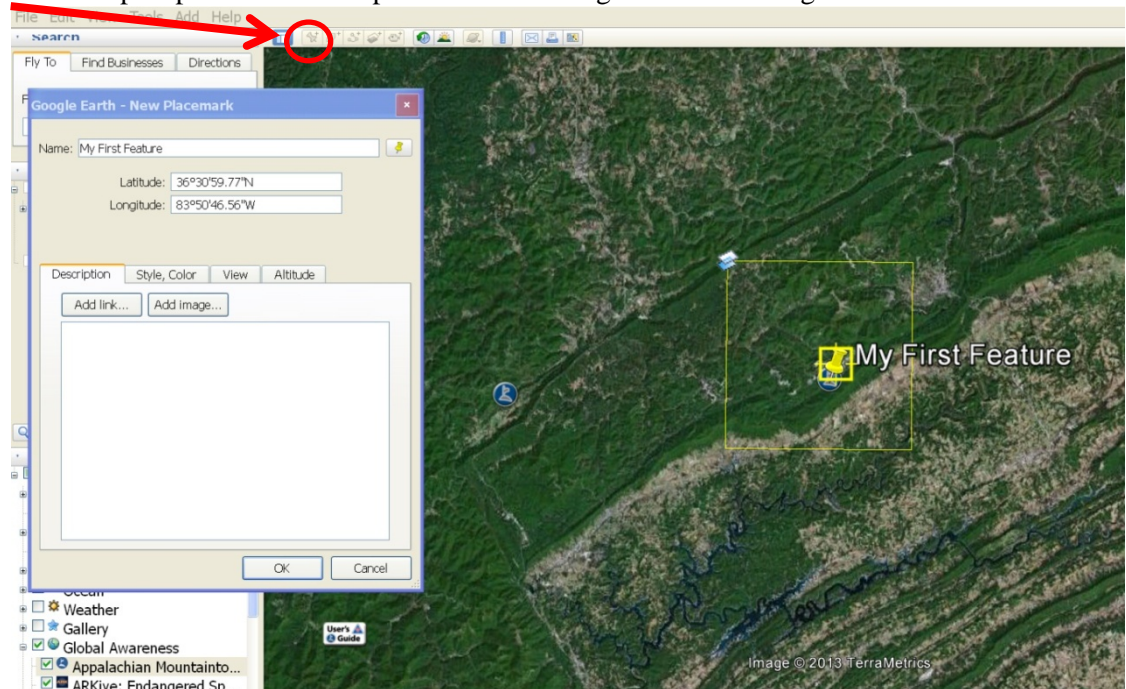
Day Two and Three: Research Guide

My Partners:

Our Topic:

You and your partners will have two days to conduct your research.

- I. Divide your Google Earth layer (topic) into sections. Each of you should research the features in your section and focus on 5 features you would like to highlight in your film – a total of 15 features for the three of you.
- II. As you view each one of the features you want to use for your film, you will need to create a placemark.
 - Click on the pushpin icon at the top left of the viewing window in Google Earth.



- Create a name for each feature and type it in the dialog box. You may type any notes or information you would like to remember for this feature in the description box.

- III. Take your time researching each feature. Be sure to fully read the dialog box for each feature and explore any links you find. Use the chart on the back to organize your research.

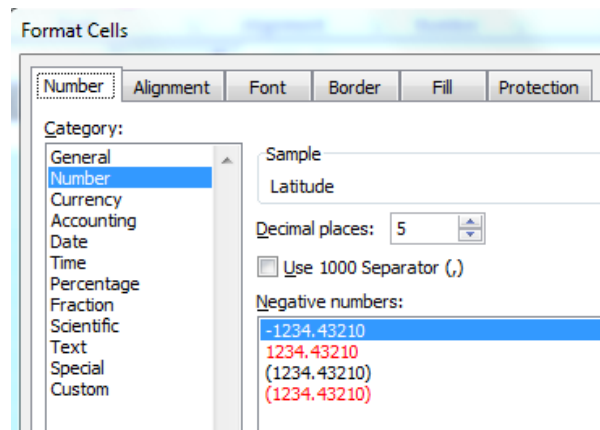
Feature Questions (Answer for each feature)	Topic Questions (Answer after investigating all of the features – discuss these with your partners to come up with a group answer.)
Where is this feature?	Location Where is this issue occurring? List several places.
What is occurring here?	Place What human features exist in these places? - Religion, economic activities, etc. What physical features exist in these places? - Climate, landforms, ecosystems
How is this feature related to other features in the layer?	Region: How are these places connected? What do they have in common with each other?
How is this feature similar to other features in the layer?	Movement: How is this issue affecting the distribution of people in the area? Are people moving in? Are they moving away? Is this issue affecting the migration of animals?
How is it different?	HEI: Are humans responsible for creating this issue? If so, how have they done this and why? Who in particular is responsible? Are humans attempting to fix this issue? If so, how and why? What groups or organizations are responsible for attempting to solve this issue? Are humans being affected by this issue? If so, how?
Why is this feature a good example of the topic you are researching?	Is there any other information about this topic you feel should be included in the film?
How is this affecting the area around this feature?	
What is being done about this?	
Is there anything else about this feature you feel should be included in the film?	

Confronting Future Challenges Documentary Student Guide

Day Four: Map-Making Guide

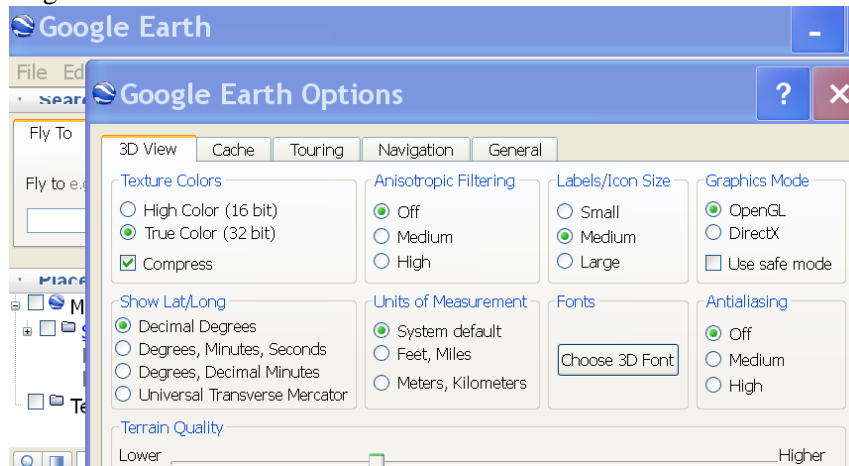
Since Google Earth display information across a virtual globe, it is difficult to see the distribution of places all at once. In this exercise, you will:

- Create an attribute table in Microsoft Excel
 - Create a map using Google Fusion
 - Analyze the locations of your features
- I. Create an attribute table in Microsoft Excel. In order to map data, it must be organized in a way that can be mapped. In this case, we will only be using the latitude and longitude of the features you identified in your research. You will only need one attribute table for the group. Have one group member looking up the info on Google Earth, while another creates the table.
- a. Set up your spreadsheet with the following column titles: Name, Latitude, Longitude
 - b. Set the column format by highlighting each column, right clicking the column number and choosing “Format Cells”.



- i. Latitude and Longitude = number with five decimal places
- ii. Name = text

- II. Open Google Earth. Click on “Tool” at the very top and select “Options”. On the “Google Earth Options” dialog box, make sure you check for Lat/Long to be displayed in Decimal Degrees.

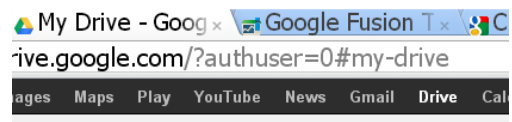


- Copy the name, latitude and longitude into their appropriate columns on your spreadsheet.
 - Continue with all of your (and your partners’) placemarks until your attribute table is complete.
 - Save your spreadsheet in the place your teacher designates. You will need to save it as a .csv file.
- III. Create a map using Google Fusion. You will upload your attribute table, and Google Fusion will project your data onto a map, using points to show each location.

- Open Google Chrome. Make sure you are on the Google homepage.
- In the top right hand corner, click “Sign in”
- If you have a Google account, sign in. If not, click “Create an account now” and follow the instructions you are given. Once your account is created, log in to Google.

- Go to Google Drive

- Click “Create”, scroll down to “more” and click on “Fusion Table”



- Click “Browse” and find your Excel spreadsheet. Select it and choose “Next”.
- When your attribute table opens, click “Next” again. Rename the table “Feature_points_(name of your topic)”.
- Click “Finish”.
- Just above your table, click “Map of Latitude” to see your map.

- j. You may need to use the wheel on your mouse to scroll out a bit in order to view the map.
- IV. Analyze the location of your feature points.
 - a. Answer the following questions to include in your film:
 - i. Are most of your points in the Eastern or Western hemisphere?
 - ii. Are most of your points in the Northern or Southern hemisphere?
 - iii. Which continents do not have any features with this issue?
 - iv. Which continent has the most features?
 - v. Describe the pattern of the features.
- V. Once your map analysis is complete, you can capture the map by hitting the “Ctrl” and “Print Screen” keys on your keyboard at the same time. Open “Paint” (under Accessories) and Click “Edit” “Paste”. Your screen shot should appear. You can crop your map and save it as a .jpg.
- VI. If you still have time remaining in class today, begin reviewing all of your information with your partners. You can start looking for photos or writing up your script now. Ask your teacher for the “Storyboard” Guide.

Confronting Future Challenges Documentary Student Guide

Day Five and Six: Storyboard Guide

You will be using software called PhotoStory to create your documentary. PhotoStory allows you to record you speaking on each “slide” of the film. You will need to collect photographs, screenshots from Google Earth, maps and other visuals (not videos) to place into your slide show, and then you will need to write a script for each slide. It is probably best if two of you work on writing the script while one of you gathers visuals. Your video should be between 3 and 5 minutes long. You may use the storyboard below as a guide to help you write your script and align it with the proper visuals. You will need to use your own paper. Show your completed storyboard to your teacher before going on to Production.

Title slide:	Write text to record here:
Slide one: (sketch or write info about what picture goes here)	Write text to record here:
Slide two: map	Write text to record here:
Slide three: (sketch or write info about what picture goes here)	Write text to record here:

Confronting Future Challenges Documentary Student Guide

Day Seven and Eight: Production

- I. Make sure all of your photos and visuals are saved as .jpgs in one place.
- II. Make sure your script and storyboard is finished.
- III. Open PhotoStory. If it is not loaded on your computer, check with your teacher first, then download it from <http://www.microsoft.com/en-us/download/details.aspx?id=11132>
- IV. Familiarize yourself with PhotoStory. You can find videos and tutorials on how to use it at:
 - Photo Story Tutorial Videos <http://www.jakesonline.org/photostory.htm>
 - Photo Story Tutorial Information <http://digitalstorytelling.coe.uh.edu/photostory.html>
- V. Insert all of your photos at once. You can drag and drop them to place them in the correct order. You can edit each photo using the built in photo editing, if you wish.
- VI. Make sure your title slide includes the title of your project and the names of the entire production crew.
- VII. Once your photos are edited and arranged, begin recording your text.
 - Make sure you take turns speaking.
 - Speak slowly and loudly!
 - You can stop and re-record if you make a mistake.
- VIII. Once you have completely recorded your script, you will be given the option of adding background music if you like.
 - Music without singing works best.
 - Make sure you turn the volume down (there is a slider on the screen where you are placing the song) – if the song plays too loudly, it will drown out your voice. You might need to experiment with this.
- IX. Once you have saved your project as a project file – you still have to save it as a movie file for playback in front of the class! Make sure your project file is saved in the place designated by your teacher.
- X. Playback your entire movie to make sure it works!

Confronting Future Challenges Documentary Student Guide

Day Nine and Ten: Geo-Doc Awards

You will be writing a review and rating each film as you watch it – just like a film critic. Your teacher will collect the ratings, tabulate them, and the documentary with the highest rating will win first prize.

First prize: 15 extra points on your grade

Second prize: 10 extra points on your grade

Third prize: 5 extra points on your grade

Rating Guide:

Film content	1 pt – the film does not really address the issue 2 pts – the film tries to address the issue, but it is very confusing and unorganized 3 pts – the film addresses the issue, but lacks some important information or could be better organized 4 pts – the film addresses the issue and includes most of the important information; it is well organized and informative 5 pts – the film clearly addresses the issue in a well-organized manner; it is very informative and entertaining, as will.
Graphics	1 pt – not enough visuals, pictures are poor quality or distract from the content 2 pts – good visuals; pictures clear and easy to see and support the content well
Sound	1 pt – sound is not audible; speakers cannot be understood; background music is inappropriate or too loud 2 pts – sound is difficult to hear, but audible; music is not distracting 3 pts – sound is very easy to hear; speakers are clear and understandable; music enhances the topic – creating emotional drama

Award points as indicated by each category and add them up – this is your “rating” for the film. Use the comments section of your nominating sheet to give your teacher additional information which might help distinguish between two films with the same rating (which should “win” and why). You must rate each film and make comments, but the ratings and comments will not be viewed by anyone but the teacher – do not put your name on this paper!

Film Title and Production Crew	Rating: see guide	Comments:
	Film content: Graphics: Sound: Total score:	
	Film content: Graphics: Sound: Total score:	
	Film content: Graphics: Sound: Total score:	
	Film content: Graphics: Sound: Total score:	
	Film content: Graphics: Sound: Total score:	
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