

- ★ Why do geographers study relationships and patterns among and between places?
- ★ How do geographers use maps to help them discover patterns and relationships in the world?
- ★ How do geographers use a spatial perspective to analyze complex issues and relationships?

PSO= Patterns & Spatial Organization

IMP= Impacts & Interactions

SPS=Spatial Processes & Societal Changes

 Concepts & Processes

 Spatial Relationships

 Data Analysis

 Source Analysis

 Scale Analysis

Description: This first unit sets the foundation for the course by teaching students how geographers approach the study of places. Students are encouraged to reflect on the “why of where” to better understand geographic perspectives. Many other high school courses ask students to read and analyze data, but for this course, students also apply a spatial perspective when reading and analyzing qualitative and quantitative data.

Students learn the ways information from data sources such as maps, tables, charts, satellite images, and infographics informs policy decisions such as voting redistricting or expanding transportation networks. They also learn about how people influence and are influenced by their environment; the resulting impact on topography, natural resources, and climate; and the differences between and consequences of environmental determinism and possibilism.

Finally, students are introduced to the language of geography, learning discipline-specific terminology and applying that language to contemporary, real-world scenarios so they can better study population processes and patterns in the next unit.

1.1 INTRODUCTION TO MAPS

ENDURING UNDERSTANDING: Geographers use maps and data to depict relationships of time, space, and scale.

LEARNING OBJECTIVE: Identify types of maps, the types of information presented in maps, and different kinds of spatial patterns and relationships portrayed in maps.

PSO 1.A.1: Types of maps include reference maps and thematic maps.

PSO 1.A.2: Types of spatial patterns represented on maps include absolute and relative distance and direction, clustering, dispersal, and elevation.

PSO 1.A.3: All maps are selective in information; map projections inevitably distort spatial relationships in shape, area, distance, and direction.

1.2 GEOGRAPHIC DATA

ENDURING UNDERSTANDING: Geographers use maps and data to depict relationships of time, space, and scale.

LEARNING OBJECTIVE: Identify different methods of geographic data collection.

IMP 1.B.1: Data may be gathered in the field by organizations or by individuals.

IMP 1.B.2: Geospatial technologies include geographic information systems (GIS), satellite navigation systems, remote sensing, and online mapping and visualization.

IMP 1.B.3: Spatial information can come from written accounts in the form of field observations, media reports, travel narratives, policy documents, personal interviews, landscape analysis, and photographic interpretation.

1.3 THE POWER OF GEOGRAPHIC DATA

ENDURING UNDERSTANDING: Geographers use maps and data to depict relationships of time, space, and scale.

LEARNING OBJECTIVE: Explain the geographical effects of decisions made using geographical information.

IMP 1.C.1: Geospatial and geographical data, including census data and satellite imagery, are used at all scales for personal, business and organizational, and governmental decision-making purposes.

1.4 SPATIAL CONCEPTS

1.6 SCALES OF ANALYSIS

ENDURING UNDERSTANDING: Geographers analyze relationships among and between places to reveal important spatial patterns.

LEARNING OBJECTIVE: Define scales of analysis used by geographers.

PSO 1.C.1: Scales of analysis include global, regional, national, and local.

LEARNING OBJECTIVE: Explain what scales of analysis reveal.

PSO 1.D.1: Patterns and processes at different scales reveal variations in, and different interpretations of, data.

1.7 REGIONAL ANALYSIS

ENDURING UNDERSTANDING: Geographers analyze complex issues and relationships with a distinctively spatial perspective.

LEARNING OBJECTIVE: Describe different ways that geographers define regions.

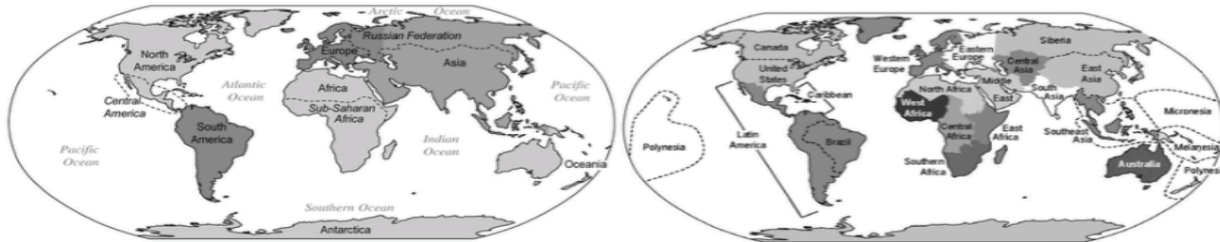
SPS 1.A.1: Regions are defined on the basis of one or more unifying characteristics or on patterns of activity.

SPS 1.A.2: Types of regions include formal, functional, and perceptual/vernacular.

SPS 1.A.3: Regional boundaries are transitional and often contested and overlapping.

SPS 1.A.4: Geographers apply regional analysis at local, national, and global scales.

World regions maps: Many of these regions overlap or have transitional boundaries, such as Brazil, which is part of Latin America but has Portuguese colonial heritage. Although some regions are based on culture, others are defined by physiographic features, such as sub-Saharan Africa, which is the part of the continent south of the Sahara Desert. Not all geographers agree on how each region is defined. One geographer may place Armenia and Azerbaijan in the Middle East, but another may place them in Central Asia as both countries were formerly parts of the Soviet Union. Likewise some geographers use the term Middle East, whereas others use Southwest Asia to describe the same region.



Big Idea Questions: Unit 2 (PSO, IMP, SPS)

- ★ How does where people live impact global cultural, political, and economic patterns?
- ★ How does the interplay of environmental, economic, cultural, and political factors influence changes in population?
- ★ How do changes in population affect a place's economy, culture, and politics?

Description: This unit addresses the patterns associated with human populations. Populations may increase or decrease as a result of a combination of natural changes (births and deaths) and migration patterns (emigration and immigration). Students examine population distributions at different scales—local, national, regional, and global. Population pyramids demonstrate age-sex structures, revealing the growth or decline of generations and allowing geographers to predict economic needs based on reproductive and aging patterns.

Students learn about factors that influence changes in population as well as the long- and short-term effects of those population changes on a place's economy, culture, and politics. For example, environmental degradation and natural hazards may prompt population redistribution at various scales, which in turn creates new pressures on the environment and on cultural, economic, and political institutions. The study of migration patterns allows students to examine factors contributing to voluntary and forced relocation and the impact of these migrating populations on existing settlements. Combined, the concepts and theories encountered in this unit help students develop connections and transfer their learning in upcoming units to course topics such as cultural patterns, the political organization of space, food production issues, natural resource use, and urban systems.

2.1 POPULATION DISTRIBUTION

ENDURING UNDERSTANDING: Understanding where and how people live is essential to understanding global cultural, political, and economic patterns.

LEARNING OBJECTIVE: Identify the factors that influence the distribution of human populations at different scales.

PSO 2.A.1: Physical factors (e.g. climate, landforms, waterbodies) and human factors (e.g., culture, economics, history, politics) influence the distribution of population.

PSO 2.A.2: Factors that illustrate patterns of population distribution vary according to the scale of analysis.

LEARNING OBJECTIVE: Define methods geographers use to calculate population density.

PSO 2.B.1: The three methods for calculating population density are arithmetic, physiological, and agricultural.

LEARNING OBJECTIVE: Explain the differences between and the impact of methods used to calculate population density.

PSO 2.C.1: The method used to calculate population density reveals different information about the pressure the population exerts on the land.

2.2 CONSEQUENCES OF POPULATION DISTRIBUTION

ENDURING UNDERSTANDING: Understanding where and how people live is essential to understanding global cultural, political, and economic patterns.

LEARNING OBJECTIVE: Explain how population distribution and density affect society and the environment.

PSO 2.D.1: Population distribution and density affect political, economic, and social processes, including the provision of services such as medical care.

PSO 2.D.2: Population distribution and density affect the environment and natural resources; this is known as carrying capacity.

2.3 POPULATION COMPOSITION

ENDURING UNDERSTANDING: Understanding where and how people live is essential to understanding global cultural, political, and economic patterns.

decline.

IMP 2.A.3: Social, cultural, political, and economic factors influence fertility, mortality, and migration rates.

2.5 DEMOGRAPHIC TRANSITION MODEL

ENDURING UNDERSTANDING: Changes in population are due to mortality, fertility, and migration, which are influenced by the interplay of environmental, economic, cultural, and political factors.

LEARNING OBJECTIVE: Explain theories of population growth and decline.

IMP 2.B.1: The demographic transition model can be used to explain population change over time.

IMP 2.B.2: The epidemiological transition explains causes of changing death rates.

2.6 MALTHUSIAN THEORY

ENDURING UNDERSTANDING: Changes in population are due to mortality, fertility, and migration, which are influenced by the interplay of environmental, economic, cultural, and political factors.

LEARNING OBJECTIVE: Explain theories of population growth and decline.

IMP 2.B.3: Malthusian theory and its critiques are used to analyze population change and its consequences.

2.7 POPULATION POLICIES

ENDURING UNDERSTANDING: Changes in population have long- and short-term effects on a place's economy, culture, and politics.

LEARNING OBJECTIVE: Explain the intent and effects of various population and immigration policies on population size and composition.

SPS 2.A.1: Types of population policies include those that promote or discourage population growth, such as pronatalist, antinatalist, and immigration policies.

2.8 WOMEN & DEMOGRAPHIC CHANGE

ENDURING UNDERSTANDING: Changes in population have long- and short-term effects on a place's economy, culture, and politics.

LEARNING OBJECTIVE: Explain how the changing role of females has demographic consequences in different parts of the world.

SPS 2.B.1: Changing social values and access to education, employment, health care, and contraception have reduced fertility rates in most parts of the world.

SPS 2.B.2: Changing social, economic, and political roles for females have influenced patterns of fertility, mortality, and migration, as illustrated by Ravenstein's laws of migration.

2.9 AGING POPULATIONS

ENDURING UNDERSTANDING: Changes in population have long- and short-term effects on a place's economy, culture, and politics.

LEARNING OBJECTIVE: Explain the causes and consequences of an aging population.

SPS 2.C.1: Population aging is determined by birth and death rates and life expectancy.

SPS 2.C.2: An aging population has political, social, and economic consequences, including the dependency ratio.

2.10 CAUSES OF MIGRATION

ENDURING UNDERSTANDING: Changes in population are due to mortality, fertility, and migration, which are influenced by the interplay of environmental, economic, cultural, and political factors.

LEARNING OBJECTIVE: Explain how different causal factors encourage migration.

IMP 2.C.1: Migration is commonly divided into push factors and pull factors.

IMP 2.C.2: Push/pull factors and intervening opportunities/obstacles can be cultural, demographic, economic, environmental, or political.

2.11 FORCED & VOLUNTARY MIGRATION

ENDURING UNDERSTANDING: Changes in population are due to mortality, fertility, and migration, which are influenced by the

Examples of combining information:

- Physical factors which influence the distribution of population are climate, landforms, and water bodies
- Human factors which influence the distribution of population are culture, economics, history, and politics

Types of voluntary migrations include transnational, transhumance, internal, chain, step, guest worker, and rural-to-urban.
(These may seem obvious however CB has named them, so know them in the context of geography)

Big Idea Questions: Unit 3 (PSO, IMP, SPS)

- ★ How does where people live and what resources they have access to impact their cultural practices?
- ★ How does the interaction of people contribute to the spread of cultural practices?
- ★ How and why do cultural ideas, practices, and innovations change or disappear over time?

Description: The main focus of this unit is on cultural patterns and processes that create recognized cultural identities. Students consider the physical environment to determine the effects of geographical location and available resources on cultural practices. Visuals representing artifacts, mentifacts and sociofacts all shed light on cultural landscapes and how they change over time. Practice in analyzing images of different places at different times for evidence of their ethnicity, language, religion, gender roles and attitudes, and other cultural attributes builds students' understanding of cultural patterns and processes.

This unit also considers from a temporal and spatial perspective how culture spreads, through traditional forces such as colonialism and imperialism and through contemporary influences such as social media. Rather than emphasize the details of cultural practices associated with specific languages and religions, this unit instead focuses on the distribution of cultural practices and on the causes and effects of their diffusion. For example, students might study the distribution of Chinese versus English languages or the diffusion patterns of religions such as Hinduism and Islam, at local, national, or global scales. An understanding of the diffusion of cultural practices provides a foundation for the study of political patterns and processes in the next unit.

3.1 INTRODUCTION TO CULTURE

ENDURING UNDERSTANDING: Cultural practices vary across geographical locations because of physical geography and available resources.

LEARNING OBJECTIVE: Define the characteristics, attitudes, and traits that influence geographers when they study culture.

PSO 3.A.1: Culture comprises the shared practices, technologies, attitudes, and behaviors transmitted by a society.

PSO 3.A.2: Cultural traits include such things as food preferences, architecture, and land use.

PSO 3.A.3: Cultural relativism and ethnocentrism are different attitudes toward cultural difference.

3.2 CULTURAL LANDSCAPES

ENDURING UNDERSTANDING: Cultural practices vary across geographical locations because of physical geography and available resources.

LEARNING OBJECTIVE: Describe the characteristics of cultural landscapes.

PSO 3.B.1: Cultural landscapes are combinations of physical features, agricultural and industrial practices, religious and linguistic characteristics, evidence of sequent occupancy, and other expressions of culture including traditional and postmodern architecture and land-use patterns.

LEARNING OBJECTIVE: Explain how landscape features and land and resource use reflect cultural beliefs and identities.

PSO 3.C.1: Attitudes toward ethnicity and gender, including the role of women in the workforce; ethnic neighborhoods; and indigenous communities and lands help shape the use of space in a given society.

3.3 CULTURAL PATTERNS

ENDURING UNDERSTANDING: Cultural practices vary across geographical locations because of physical geography and available resources.

LEARNING OBJECTIVE: Explain patterns and landscapes of language, religion, ethnicity, and gender.

PSO 3.D.1: Regional patterns of language, religion, and ethnicity contribute to a sense of place, enhance placemaking, and

expression, for example, organization and lingua franca.

SPS 3.A.2: Colonialism, imperialism, and trade helped to shape patterns and practices of culture.

3.6 CONTEMPORARY CAUSES OF DIFFUSION

ENDURING UNDERSTANDING: Cultural ideas, practices, and innovations change or disappear over time.

LEARNING OBJECTIVE: Explain how historical processes impact current cultural patterns.

SPS 3.A.3: Cultural ideas and practices are socially constructed and change through both small-scale and large-scale processes such as urbanization and globalization. These processes come to bear on culture through media, technological change, politics, economics, and social relationships.

SPS 3.A.4: Communication technologies, such as the internet and the time-space convergence, are reshaping and accelerating interactions among people; changing cultural practices, as in the increasing use of English and the loss of indigenous languages; and creating cultural convergence and divergence.

3.7 DIFFUSION OF RELIGION AND LANGUAGE

ENDURING UNDERSTANDING: The interaction of people contributes to the spread of cultural practices.

LEARNING OBJECTIVE: Explain what factors lead to the diffusion of universalizing and ethnic religions.

IMP 3.B.1: Language families, languages, dialects, world religions, ethnic cultures, and gender roles diffuse from cultural hearths.

IMP 3.B.2: Diffusion of language families, including Indo-European, and religious patterns and distributions can be visually represented on maps, in charts and toponyms, and in other representations.

IMP 3.B.3: Religions have distinct places of origin from which they diffused to other locations through different processes. Practices and belief systems impacted how widespread the religion diffused.

IMP 3.B.4: Universalizing religions, including Christianity, Islam, Buddhism, and Sikhism, are spread through expansion and relocation diffusion.

IMP 3.B.5: Ethnic religions, including Hinduism and Judaism, are generally found near the hearth or spread through relocation diffusion.

3.8 EFFECTS OF DIFFUSION

ENDURING UNDERSTANDING: Cultural ideas, practices, and innovations change or disappear over time.

LEARNING OBJECTIVE: Explain how the process of diffusion results in changes to the cultural landscape.

SPS 3.B.1: Acculturation, assimilation, syncretism, and multiculturalism are effects of the diffusion of culture.

Big Idea Questions: Unit 4 (PSO, IMP, SPS)

- ★ How do historical and current events influence political structures around the world?
- ★ How are balances of power reflected in political boundaries and government power structures?
- ★ How can political, economic, cultural, or technological changes challenge state sovereignty?

Description: This unit addresses the political organization of the world. Building on knowledge of populations and cultural patterns learned in previous units, students examine the contemporary political map and the impact of territoriality on political power and on issues of identity for peoples. Students also look at the different types of political boundaries, how they function, and their scale, as they consider both internal and international boundaries. The interplay of political and cultural influences may cause tensions over boundaries to arise, such as sovereign states making claims on what other states consider to be international waters.

Students also examine forms of government and how forces such as devolution may alter the functioning of political units and cause changes to established political boundaries. Separatist and independence movements that challenge the sovereignty of political states may arise from economic and nationalistic forces, as seen in Scotland, Northern Ireland, and Spain. The influence of supranational organizations such as the United Nations or European Union and their role in global affairs presents another challenge to nationalist sovereignty. Student understanding of cultural patterns and processes helps inform their understanding of the consequences of centrifugal and centripetal forces

4.1 INTRODUCTION TO POLITICAL GEOGRAPHY

ENDURING UNDERSTANDING: The political organization of space results from historical and current processes, events, and ideas.

LEARNING OBJECTIVE: For world political maps: a) Define the different types of political entities. b) Identify a contemporary example of political entities.

PSO 4.A.1: Independent states are the primary building blocks of the world political map.

PSO 4.A.2: Types of political entities include nations, nation-states, stateless nations, multinational states, multistate nations, and autonomous and semi-autonomous regions, such as American Indian reservations.

4.2 POLITICAL PROCESSES

ENDURING UNDERSTANDING: The political organization of space results from historical and current processes, events, and ideas.

LEARNING OBJECTIVE: Explain the processes that have shaped contemporary political geography.

PSO 4.B.1: The concepts of sovereignty, nation-states, and self-determination shape the contemporary world.

PSO 4.B.2: Colonialism, imperialism, independence movements, and devolution along national lines have influenced contemporary political boundaries.

4.3 POLITICAL POWER AND TERRITORIALITY

ENDURING UNDERSTANDING: Describe the concepts of political power and territoriality as used by geographers.

LEARNING OBJECTIVE: Describe the concepts of political power and territoriality as used by geographers.

PSO 4.C.1: Political power is expressed geographically as control over people, land, and resources, as illustrated by neocolonialism, shatterbelts, and choke points.

PSO 4.C.2: Territoriality is the connection of people, their culture, and their economic systems to the land.

4.4 DEFINING POLITICAL BOUNDARIES

ENDURING UNDERSTANDING: Political boundaries and divisions of governance between states and within them reflect balances

IMP 4.B.2: Political boundaries often coincide with cultural, national, or economic divisions. However, some boundaries are created by demilitarized zones or policy, such as the Berlin Conference.

IMP 4.B.3: Land and maritime boundaries and international agreements can influence national or regional identity and encourage or discourage international or internal interactions and disputes over resources.

IMP 4.B.4: The United Nations Convention on the Law of the Sea defines the rights and responsibilities of nations in the use of international waters, established territorial seas, and exclusive economic zones.

4.6 INTERNAL BOUNDARIES

ENDURING UNDERSTANDING: Political boundaries and divisions of governance, between states and within them, reflect balances of power that have been negotiated or imposed.

LEARNING OBJECTIVE: Explain the nature and function of international and internal boundaries.

IMP 4.B.5: Voting districts, redistricting, and gerrymandering affect election results at various scales.

4.7 FORMS OF GOVERNANCE

ENDURING UNDERSTANDING: Political boundaries and divisions of governance, between states and within them, reflect balances of power that have been negotiated or imposed.

LEARNING OBJECTIVE: Define federal and unitary states.

IMP 4.C.1: Forms of governance include unitary states and federal states.

LEARNING OBJECTIVE: Explain how federal and unitary states affect spatial organization.

IMP 4.D.1: Unitary states tend to have a more top-down, centralized form of governance, while federal states have more locally based, dispersed power centers.

4.8 DEFINING DEVOLUTIONARY FACTORS

ENDURING UNDERSTANDING: Political, economic, cultural, or technological changes can challenge state sovereignty.

LEARNING OBJECTIVE: Define factors that lead to the devolution of states.

SPS 4.A.1: Factors that can lead to the devolution of states include the division of groups by physical geography, ethnic separatism, ethnic cleansing, terrorism, economic and social problems, and irredentism.

4.9 CHALLENGES TO SOVEREIGNTY

ENDURING UNDERSTANDING: Political, economic, cultural, or technological changes can challenge state sovereignty.

LEARNING OBJECTIVE: Explain how political, economic, cultural, and technological changes challenge state sovereignty.

SPS 4.B.1: Devolution occurs when states fragment into autonomous regions; subnational political-territorial units, such as those within Spain, Belgium, Canada, and Nigeria; or when states disintegrate, as happened in Eritrea, South Sudan, East Timor, and states that were part of the former Soviet Union.

SPS 4.B.2: Advances in communication technology have facilitated devolution, supranationalism, and democratization.

SPS 4.B.3: Global efforts to address transnational and environmental challenges and to create economies of scale, trade agreements, and military alliances help to further supranationalism.

SPS 4.B.4: Supranational organizations—including the United Nations (UN), North Atlantic Treaty Organization (NATO), European Union (EU), Association of Southeast Asian Nations (ASEAN), Arctic Council, and African Union—can challenge state sovereignty by limiting the economic or political actions of member states.

4.10 CONSEQUENCES OF CENTRIFUGAL AND CENTRIPETAL FORCES

ENDURING UNDERSTANDING: Political, economic, cultural, or technological changes can challenge state sovereignty.

LEARNING OBJECTIVE: Explain how centrifugal and centripetal forces challenge state sovereignty.

Description: This unit examines the origins of agriculture and its subsequent diffusion. Students learn about the ways agricultural practices have changed over time as a result of technological innovations, such as equipment mechanization and improvements in transportation that create global markets. In addition, they examine the consequences of agricultural practices such as the use of high-yield seeds and chemicals, revisiting the human–environmental relationships studied in Unit 1.

Course emphasis on spatial patterns is evident in this unit as students consider the differences in what foods or resources are produced and where they are produced. These agricultural production regions are impacted by economic and technological forces that increase the size of agricultural operations and the carrying capacity of the land. This has in turn created a global system of agriculture and the interdependence of regions of agricultural consumption and production. Student understanding of this global system of agriculture based on government cooperation lays the foundation for a deeper understanding of economic development in the final unit of the course.

Big Idea Questions: Unit 5 (PSO, IMP, SPS)

- ★ How do a people's culture and the resources available to them influence how they grow food?
- ★ How does what people produce and consume vary in different locations?
- ★ What kind of cultural changes and technological advances have impacted the way people grow and consume food?

5.1 INTRODUCTION TO AGRICULTURE

ENDURING UNDERSTANDING: Availability of resources and cultural practices influence agricultural practices and land-use patterns.

LEARNING OBJECTIVE: Explain the connection between physical geography and agricultural practices.

PSO 5.A.1: Agricultural practices are influenced by the physical environment and climatic conditions, such as the Mediterranean climate and tropical climates.

PSO 5.A.2: Intensive farming practices include market gardening, plantation agriculture, and mixed crop/livestock systems.

PSO 5.A.2: Extensive farming practices include shifting cultivation, nomadic herding, and ranching.

5.2 SETTLEMENT PATTERNS AND SURVEY METHODS

ENDURING UNDERSTANDING: Availability of resources and cultural practices influence agricultural practices and land-use patterns.

LEARNING OBJECTIVE: Identify different rural settlement patterns and methods of surveying rural settlements.

PSO 5.B.1: Specific agricultural practices shape different rural land-use patterns.

PSO 5.B.2: Rural settlement patterns are classified as clustered, dispersed, or linear.

PSO 5.B.3: Rural survey methods includes metes and bounds, township and range, and long lot.

5.3 AGRICULTURAL ORIGINS & DIFFUSIONS

ENDURING UNDERSTANDING: Agriculture has changed over time because of cultural diffusion and advances in technology.

LEARNING OBJECTIVE: Identify major centers of domestication of plants and animals.

SPS 5.A.1: Early hearths of domestication of plants and animals arose in the Fertile Crescent and several other regions of the world, including the Indus River Valley, Southeast Asia, and Central America.

LEARNING OBJECTIVE: Explain how plants and animals diffused globally.

SPS 5.B.2: Patterns of diffusion, such as the Columbian Exchange and the agricultural revolutions, resulted in the global spread of various plants and animals.

5.4 THE SECOND AGRICULTURAL REVOLUTION

ENDURING UNDERSTANDING: Agriculture has changed over time because of cultural diffusion and advances in technology.

LEARNING OBJECTIVE: Explain the advances and impacts of the second agricultural revolution.

SPS 5.D.2: The Green Revolution had positive and negative consequences for both human populations and the environment.

5.6 AGRICULTURAL PRODUCTION REGIONS

ENDURING UNDERSTANDING: Availability of resources and cultural practices influence agricultural practices and land-use patterns.

LEARNING OBJECTIVE: Explain how economic forces influence agricultural practices.

PSO 5.C.1: Agricultural production regions are defined by the extent to which they reflect subsistence or commercial practices (monocropping or monoculture).

PSO 5.C.2: Intensive and extensive farming practices are determined in part by land costs (bid-rent theory).

5.7 SPATIAL ORGANIZATION OF AGRICULTURE

ENDURING UNDERSTANDING: Availability of resources and cultural practices influence agricultural practices and land-use patterns.

LEARNING OBJECTIVE: Explain how economic forces influence agricultural practices.

PSO 5.C.3: Large-scale commercial agricultural operations are replacing small family farms.

PSO 5.C.4: Complex commodity chains link production and consumption of agricultural products.

PSO 5.C.5: Technology has increased economies of scale in the agricultural sector and the carrying capacity of the land.

5.8 VON THÜNEN MODEL

ENDURING UNDERSTANDING: Availability of resources and cultural practices influence agricultural practices and land-use patterns.

LEARNING OBJECTIVE: Describe how the von Thünen model is used to explain patterns of agricultural production at various scales.

PSO 5.D.1: Von Thünen's model helps to explain rural land use by emphasizing the importance of transportation costs associated with distance from the market; however, regions of specialty farming do not always conform to von Thünen's concentric rings.

5.9 THE GLOBAL SYSTEM OF AGRICULTURE

ENDURING UNDERSTANDING: Availability of resources and cultural practices influence agricultural practices and land-use patterns.

LEARNING OBJECTIVE: Explain the interdependence among regions of agricultural production and consumption.

PSO 5.E.1: Food and other agricultural products are part of a global supply chain.

PSO 5.E.2: Some countries have become highly dependent on one or more export commodities.

PSO 5.E.3: The main elements of global food distribution networks are affected by political relationships, infrastructure, and patterns of world trade.

5.10 CONSEQUENCES OF AGRICULTURAL PRACTICES

ENDURING UNDERSTANDING: Agricultural production and consumption patterns vary in different locations, presenting different environmental, social, economic, and cultural opportunities and challenges.

LEARNING OBJECTIVE: Explain how agricultural practices have environmental and societal consequences.

IMP 5.A.1: Environmental effects of agricultural land use include pollution, land cover change, desertification, soil salinization, and conservation efforts.

IMP 5.A.2: Agricultural practices—including slash and burn, terraces, irrigation, deforestation, draining wetlands, shifting cultivation, and pastoral nomadism—alter the landscape.

IMP 5.A.3: Societal effects of agricultural practices include changing diets, role of women in agricultural production, and economic purpose.

accompanied by debates over sustainability, soil and water usage, reductions in biodiversity, and extensive fertilizer and pesticide use.

IMP 5.B.2: Patterns of food production and consumption are influenced by movements relating to individual food choice, such as urban farming, community-supported agriculture (CSA), organic farming, value-added specialty crops, fair trade, local-food movements, and dietary shifts.

IMP 5.B.3: Challenges of feeding a global population include lack of food access, as in cases of food insecurity and food deserts; problems with distribution systems; adverse weather; and land use lost to suburbanization.

IMP 5.B.3: The location of food-processing facilities and markets, economies of scale, distribution systems, and government policies all have economic effects on food-production practices.

5.12 WOMEN IN AGRICULTURE

ENDURING UNDERSTANDING: Agricultural production and consumption patterns vary in different locations, presenting different environmental, social, economic, and cultural opportunities and challenges.

LEARNING OBJECTIVE: Explain geographic variations in female roles in food production and consumption.

IMP 5.C.1: The role of females in food production, distribution, and consumption varies in many places depending on the type of production involved.

Big Idea Questions: Unit 6 (PSO, IMP, SPS)

- ★ How do physical geography and resources impact the presence and growth of cities?
- ★ How are the attitudes, values, and balance of power of a population reflected in the built landscape?
- ★ How are urban areas affected by unique economic, political, cultural, and environmental challenges?

Description: Unit 6 addresses the origins and influences, particularly site and situation, of urban settlements as students explore cities across the world and the role of those cities in globalization. They examine the spatial distribution of the world's largest cities, comparing them across regions and analyzing patterns of connectivity and accessibility. Within cities, students identify patterns of development and make inferences about their economic and political influences at regional, national, and international levels of scale.

Students examine the hierarchy of urban settlements on the landscape, applying the rank-size rule and central place theory at regional and national scales to evaluate mobility patterns and economic and political relationships. Statistics such as census data are used to reveal the challenges of urban places, including density, sprawl, demands of infrastructure, and mobility. Students examine patterns of change over time and modern challenges to sustainability from urban growth. On both local and global scales, they look at the ways that cities are improving sustainability through new approaches to growth, such as mixed-land-use zoning, smart growth policies, and public transportation-oriented development at local and international scales. This unit reinforces what students learned in the units on politics and culture as they consider the role cities play as key centers of global markets, culture, and politics and contrast the roles of urban and rural areas.

6.1 THE ORIGIN AND INFLUENCES OF URBANIZATION

ENDURING UNDERSTANDING: The presence and growth of cities vary across geographical locations because of physical geography and resources.

LEARNING OBJECTIVE: Explain the processes that initiate and drive urbanization and suburbanization.

PSO 6.A.1: Site and situation influence the origin, function, and growth of cities.

PSO 6.A.2: Changes in transportation and communication, population growth, migration, economic development, and government policies influence urbanization.

6.2 CITIES ACROSS THE WORLD

ENDURING UNDERSTANDING: The presence and growth of cities vary across geographical locations because of physical geography and resources.

LEARNING OBJECTIVE: Explain the processes that initiate and drive urbanization and suburbanization.

PSO 6.A.3: Megacities and metacities are distinct spatial outcomes of urbanization increasingly located in countries of the periphery and semiperiphery.

PSO 6.A.4: Processes of suburbanization, sprawl, and decentralization have created new land-use forms—including edge cities, exurbs, and boomburbs—and new challenges.

6.3 CITIES AND GLOBALIZATION

ENDURING UNDERSTANDING: The presence and growth of cities vary across geographical locations because of physical geography and resources.

LEARNING OBJECTIVE: Explain how cities embody processes of globalization.

PSO 6.B.1: World cities function at the top of the world's urban hierarchy and drive globalization

gravity, and Christaller's central place theory.

6.5 THE INTERNAL STRUCTURE OF CITIES

ENDURING UNDERSTANDING: The presence and growth of cities vary across geographical locations because of physical geography and resources.

LEARNING OBJECTIVE: Explain the internal structure of cities using various models and theories.

PSO 6.D.1: Models and theories that are useful for explaining internal structures of cities include the Burgess concentric-zone model, the Hoyt sector model, the Harris and Ullman multiple-nuclei model, the galactic city model, bid-rent theory, and urban models drawn from Latin America, Southeast Asia, and Africa.

6.6 DENSITY AND LAND USE

ENDURING UNDERSTANDING: The attitudes and values of a population, as well as the balance of power within that population, are reflected in the built landscape.

LEARNING OBJECTIVE: Explain how low-, medium-, and high-density housing characteristics represent different patterns of residential land use.

IMP 6.A.1: Residential buildings and patterns of land-use reflect and shape the city's culture, technological capabilities, cycles of development, and infilling.

6.7 INFRASTRUCTURE

ENDURING UNDERSTANDING: The attitudes and values of a population, as well as the balance of power within that population, are reflected in the built landscape.

LEARNING OBJECTIVE: Explain how a city's infrastructure relates to local politics, society, and the environment.

IMP 6.B.1: The location and quality of a city's infrastructure directly affects its spatial patterns of economic and social development.

6.8 URBAN SUSTAINABILITY

ENDURING UNDERSTANDING: The attitudes and values of a population, as well as the balance of power within that population, are reflected in the built landscape.

LEARNING OBJECTIVE: Identify the different urban design initiatives and practices.

IMP 6.C.1: Sustainable design initiatives and zoning practices include mixed land use, walkability, transportation-oriented development and smart-growth policies, including New Urbanism, greenbelts, and slow-growth cities.

LEARNING OBJECTIVE: Explain the effects of different urban design initiatives and practices.

IMP 6.D.1: Praise for urban design initiatives includes the reduction of sprawl, improved walkability and transportation, improved and diverse housing options, improved livability and promotion of sustainable options. Criticisms include increased housing costs, possible de facto segregation, and the potential loss of historical or place character.

6.9 URBAN DATA

ENDURING UNDERSTANDING: The attitudes and values of a population, as well as the balance of power within that population, are reflected in the built landscape.

LEARNING OBJECTIVE: Explain how qualitative and quantitative data are used to show the causes and effects of geographic change within urban areas.

IMP 6.E.1: Quantitative data from census and survey data provide information about changes in population composition and size in urban areas.

SPS 6.A.2: Squatter settlements and conflicts over land tenure within large cities have increased.

SPS 6.A.3: Responses to economic and social challenges in urban areas can include inclusionary zoning and local food movements.

SPS 6.A.4: Urban renewal and gentrification have both positive and negative consequences.

SPS 6.A.5: Functional and geographic fragmentation of governments—the way government agencies and institutions are dispersed between state, county, city, and neighborhood levels—presents challenges in addressing urban issues.

6.11 CHALLENGES OF URBAN SUSTAINABILITY

ENDURING UNDERSTANDING: Urban areas face unique economic, political, cultural, and environmental challenges.

LEARNING OBJECTIVE: Describe the effectiveness of different attempts to address urban sustainability challenges.

SPS 6.B.1: Challenges to urban sustainability include suburban sprawl, sanitation, climate change, air and water quality, the large ecological footprint of cities, and energy use.

SPS 6.B.2: Responses to urban sustainability challenges can include regional planning efforts, remediation and redevelopment of brownfields, establishment of urban growth boundaries, and farmland protection policies.

Big Idea Questions: Unit 7 (PSO, IMP, SPS)

- ★ Why does economic and social development happen at different times and rates in different places?
- ★ How might environmental problems stemming from industrialization be remedied through sustainable development strategies?
- ★ Why has industrialization helped improve standards of living while also contributing to geographically uneven development?

This unit addresses the origins and influences of industrial development, along with the role industrialization plays in economic development and globalization. Concepts learned in the political unit, such as territoriality, help students build an understanding of the measures of social and economic development and to explain development theories, such as dependency theory and Rostow's Stages of Economic Growth. The theories they explore are in turn useful in explaining spatial variations in development such as core-periphery relationships.

Students examine contemporary spatial patterns of industrialization and the resulting geography of uneven development—for example, the differences between urban and rural China or Brazil. They explore changes to places resulting from the growth or loss of industry and the role of industry in the world economy. Measurements of development provide the quantitative data to analyze the spatial relationships of the global market. Statistics and spatial data reveal the impact of development on individual populations, including the role of women in the labor market. Students explore strategies for sustainable development focused on women, children, health, education, the environment, and global cooperation. This final unit of the course pulls together those aspects of human geography learned in previous units to help students develop a more complete understanding of local and global geographic patterns and processes and of possibilities for the future.

7.1 INDUSTRIAL REVOLUTION

ENDURING UNDERSTANDING: Industrialization, past and present, has facilitated improvements in standards of living, but it has also contributed to geographically uneven development.

LEARNING OBJECTIVE: Explain how the Industrial Revolution facilitated the growth and diffusion of industrialization.

SPS 7.A.1: Industrialization began as a result of new technologies and was facilitated by the availability of natural resources.

SPS 7.A.2: As industrialization spread it caused food supplies to increase and populations to grow; it allowed workers to seek new industrial jobs in the cities and changed class structures.

SPS 7.A.3: Investors in industry sought out more raw materials and new markets, a factor that contributed to the rise of colonialism and imperialism.

7.2 ECONOMIC SECTORS AND PATTERNS

ENDURING UNDERSTANDING: Industrialization, past and present, has facilitated improvements in standards of living, but it has also contributed to geographically uneven development.

LEARNING OBJECTIVE: Explain the spatial patterns of industrial production and development.

SPS 7.B.1: The different economic sectors—including primary, secondary, tertiary, quaternary, and quinary—are characterized by distinct development patterns.

SPS 7.B.2: Labor, transportation (including shipping containers), the break-of-bulk point, least cost theory, markets, and resources influence the location of manufacturing such as core, semiperiphery, and periphery locations.

7.3 MEASURES OF DEVELOPMENT

ENDURING UNDERSTANDING: Industrialization, past and present, has facilitated improvements in standards of living, but it has also contributed to geographically uneven development.

LEARNING OBJECTIVE: Describe social and economic measures of development.

SPS 7.C.1: Measures of social and economic development include Gross Domestic Product (GDP); Gross National Product (GNP); and Gross National Income (GNI) per capita; sectoral structure of an economy, both formal and informal;

opportunities.

SPS 7.D.3: Microloans have provided opportunities for women to create small local businesses, which have improved standards of living.

7.5 THEORIES OF DEVELOPMENT

ENDURING UNDERSTANDING: Industrialization, past and present, has facilitated improvements in standards of living, but it has also contributed to geographically uneven development.

LEARNING OBJECTIVE: Explain different theories of economic and social development.

SPS 7.E.1: Different theories, such as Rostow's Stages of Economic Growth, Wallerstein's World System Theory, dependency theory, and commodity dependence, help explain spatial variations in development.

7.6 TRADE AND THE WORLD ECONOMY

ENDURING UNDERSTANDING: Economic and social development happen at different times and rates in different places.

LEARNING OBJECTIVE: Explain causes and geographic consequences of recent economic changes such as the increase in international trade, deindustrialization, and growing interdependence in the world economy.

PSO 7.A.1: Complementarity and comparative advantage establish the basis for trade.

PSO 7.A.2: Neoliberal policies, including free trade agreements, have created new organizations, spatial connections, and trade relationships, such as the EU, World Trade Organization (WTO), Mercosur, and OPEC, that foster greater globalization.

PSO 7.A.3: Government initiatives at all scales may affect economic development, including tariffs.

PSO 7.A.4: Global financial crises (e.g., debt crises), international lending agencies (e.g., the International Monetary Fund), and strategies of development (e.g., microlending) demonstrate how different economies have become more closely connected, even interdependent.

7.7 CHANGES AS A RESULT OF THE WORLD ECONOMY

ENDURING UNDERSTANDING: Economic and social development happen at different times and rates in different places.

LEARNING OBJECTIVE: Explain causes and geographic consequences of recent economic changes such as the increase in international trade, deindustrialization, and growing interdependence in the world economy.

PSO 7.A.5: Outsourcing and economic restructuring have led to a decline in jobs in core regions and an increase in jobs in newly industrialized countries.

PSO 7.A.6: In countries outside the core, the growth of industry has resulted in the creation of new manufacturing zones—including special economic zones, free-trade zones, and export-processing zones—and the emergence of an international division of labor in which developing countries have lower-paying jobs.

PSO 7.A.7: The contemporary economic landscape has been transformed by post-Fordist methods of production, multiplier effects, economies of scale, agglomeration, just-in-time delivery, the emergence of service sectors, high technology industries, and growth poles.

7.8 SUSTAINABLE DEVELOPMENT

ENDURING UNDERSTANDING: Environmental problems stemming from industrialization may be remedied through sustainable development strategies.

LEARNING OBJECTIVE: Explain how sustainability principles relate to and impact industrialization and spatial development.

IMP 7.A.1: Sustainable development policies attempt to remedy problems stemming from natural-resource depletion, mass consumption, the effects of pollution, and the impact of climate change.

IMP 7.A.2: Ecotourism is tourism based in natural environments—often environments that are threatened by looming industrialization or development—that frequently helps to protect the environment in question while also

III. PEOPLE & INTERACTIONS (III.1):

Complex relationships of cause and effect exist among people, their environments, and historical and contemporary actions.

1. How do geographers use maps to help them discover patterns and relationships in the world?
2. How does the interplay of environmental, economic, cultural, and political factors influence changes in population?
3. How does the interaction of people contribute to the spread of cultural practices?
4. How are balances of power reflected in political boundaries and government power structures?
5. How does what people produce and consume vary in different locations?
6. How are the attitudes, values, and balance of power of a population reflected in the built landscape?
7. How might environmental problems stemming from industrialization be remedied through sustainable development strategies?

PATTERNS & SPATIAL ORGANIZATION (PSO):

Spatial patterns and organization of human society are arranged according to political, historical, cultural, and economic factors.

1. Why do geographers study relationships and patterns among and between places?
2. How does where people live impact global cultural, political, and economic patterns?
3. How does where people live and what resources they have access to impact their cultural practices?
4. How do historical and current events influence political structures around the world?
5. How do a people's culture and the resources available to them influence how they grow food?
6. How do physical geography and resources impact the presence and growth of cities?
7. Why does economic and social development happen at different times and rates in different places?

SPATIAL PROCESSES & SOCIETAL CHANGE (SPS):

A spatial perspective allows for a focus on the ways phenomena are related to one another in particular places, which in turn allows for the examination

of human organization and its environmental consequences.

1. How do geographers use a spatial perspective to analyze complex issues and relationships?
2. How do changes in population affect a place's economy, culture, and politics?
3. How and why do cultural ideas, practices, and innovations change or disappear over time?
4. How can political, economic, cultural, or technological changes challenge state sovereignty?
5. What kind of cultural changes and technological advances have impacted the way people grow and consume food?
6. How are urban areas affected by unique economic, political, cultural, and environmental challenges?
7. Why has industrialization helped improve standards of living while also contributing to geographically uneven development?

1. Concepts and Processes (23%-29%)--Analyze theories, approaches, concepts, processes, & models in theoretical & applied contexts.

- A. Describe geographic concepts, processes, models, and theories.
- B. Explain geographic concepts, processes, models, and theories.
- C. Compare geographic concepts, processes, models, and theories.
- D. Describe a relevant geographic concept, process, model, or theory in a specified context.
- E. Explain the strengths, weaknesses, and limitations of different geographic models and theories in a specified context.

2. Spatial Relationships (33%-43%)--Analyze geographic patterns, relationships, and outcomes in applied contexts.

- A. Describe spatial patterns, networks, and relationships.
- B. Explain spatial relationships in a specified context or region of the world, using geographic concepts, processes, models, or theories.
- C. Explain a likely outcome in a geographic scenario using geographic concepts, processes, models, or theories.
- D. Explain the significance of geographic similarities and differences among different locations and/or at different times.
- E. Explain the degree to which a geographic concept, process, model, or theory effectively explains geographic effects in different contexts and regions of the world.

3. Data Analysis (10%-19%)--Analyze & interpret quantitative data represented in maps, tables, charts, graphs, satellite images, & infographics.

- A. Identify the different types of data presented in maps and in quantitative and geospatial data.
- B. Describe spatial patterns presented in maps and in quantitative and geospatial data.
- C. Explain patterns and trends in maps and in quantitative and geospatial data to draw conclusions.
- D. Compare patterns and trends in maps and in quantitative and geospatial data to draw conclusions.
- E. Explain what maps or data imply or illustrate about geographic principles, processes, and outcomes.
- F. Explain possible limitations of the data provided.

4. Visual Analysis (10%-19%)--Analyze & interpret qualitative geographic information represented in maps, satellite images, photographs, cartoons, & landscapes.

- A. Identify the different types of information presented in visual sources.
- B. Describe the spatial patterns presented in visual sources.
- C. Explain patterns and trends in visual sources to draw conclusions.
- D. Compare patterns and trends in sources to draw conclusions.
- E. Explain how maps, images, and landscapes illustrate or relate to geographic principles, processes, and outcomes.
- F. Explain possible limitations of visual sources provided.

5. Scale Analysis (10%-14%)--Analyze theories, approaches, concepts, processes, or models across geographic scales to explain spatial relationships.

- A. Identify the scales of analysis presented by maps, quantitative and geospatial data, images, and landscapes.
- B. Explain spatial relationships across various geographic scales using geographic concepts, processes, models, or theories.
- C. Compare geographic characteristics and processes at various scales.
- D. Explain the degree to which a geographic concept, process, model, or theory effectively explains geographic effects across various geographic scales.