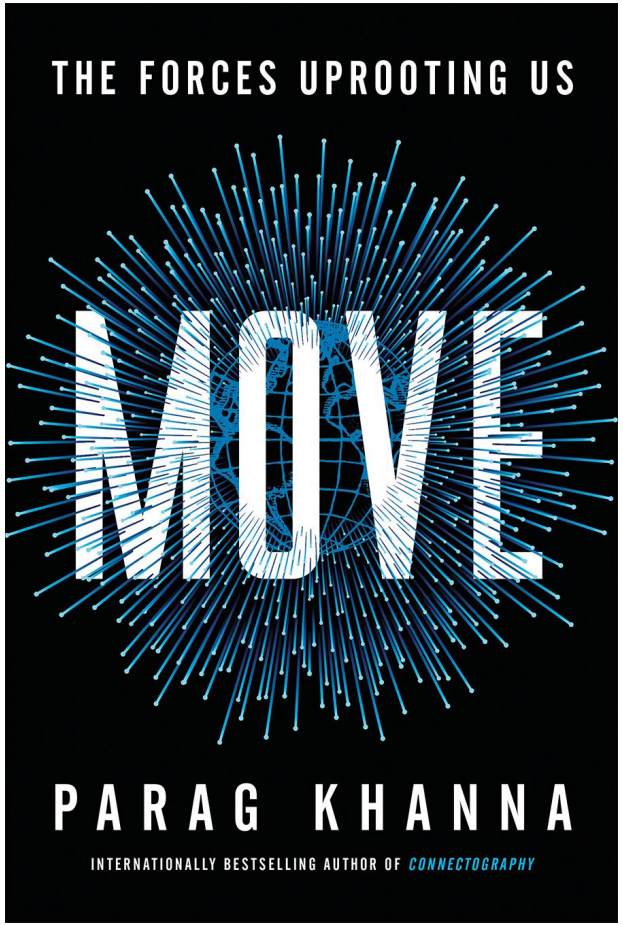
MOVE

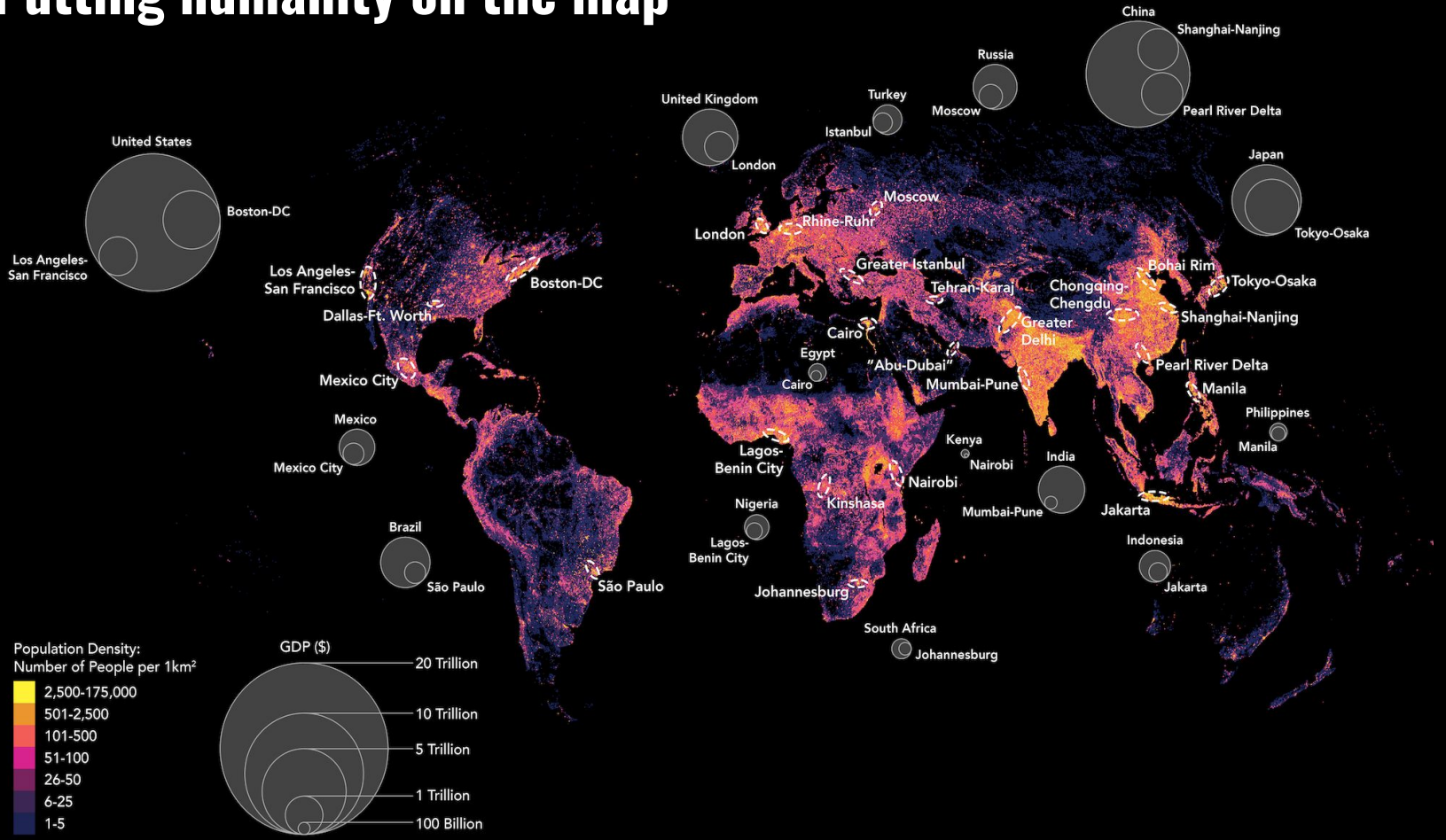
AP HUMAN GEOGRAPHY STUDY GUIDE



THE AMERICAN GEOGRAPHICAL SOCIETY - 1851 -

Simon & Schuster

Putting humanity on the map



This is a book about the geography that matters most to us: *human* geography. Human geography investigates the where and the how of the distribution of our species across 150 million square kilometers of land on six continents. Think of it like climatology, a deep science of how we relate to one another and the planet. Human geography subsumes hot button topics like demographics (the age and gender balance of populations) and migration (the resettlement of people), but goes much deeper into our ethnographic composition, and even our genetic adaptation to a changing environment. Climate refugees and economic migrants, intermarriage and even evolution—all are part of the grand story of our human geography.

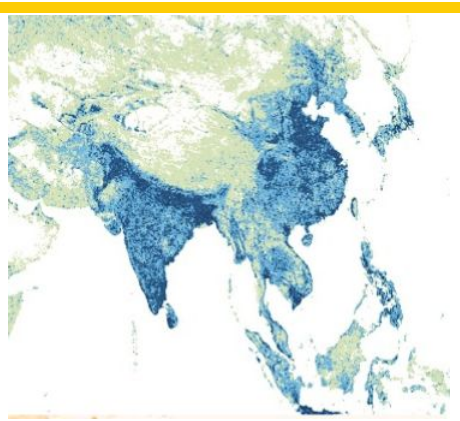
MOVE: The Forces Uprooting Us **(p.2)**

Four dynamic geographies

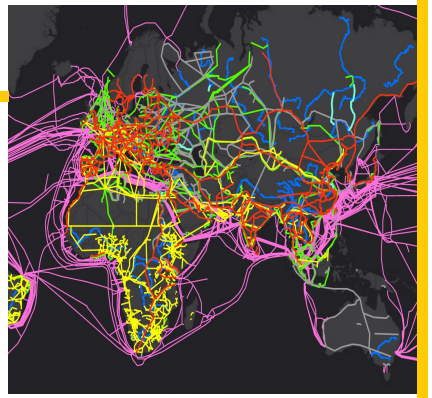
Natural Geography

Political Geography

Human Geography



Functional Geography



FutureMap

UNIT 1

8–10% AP EXAM WEIGHTING | **~9–10** CLASS PERIODS

Thinking Geographically

Developing Understanding

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.

BIG IDEA 1
Patterns and Spatial Organization PSO
- Why do geographers study relationships and patterns among and between places?

BIG IDEA 2
Impacts and Interactions IMP
- How do geographers use maps to help them discover patterns and relationships in the world?

BIG IDEA 3
Spatial Processes and Societal Change SPS
- How do geographers use a spatial perspective to analyze complex issues and relationships?

Insights

- *Geosophy*: the ever evolving relationship between geography and human nature (John Kirtland Wright, 1946)
- "Geosophy inspires us to overcome artificial authority: borders can bend, infrastructure can shift, people can move." (*Move*, 350)

Key questions

- Do you think of geography as a branch of philosophy, the social sciences, or natural sciences?
- What is meant by the phrase: "Geography is destiny"? Do you agree or disagree?
- If maps of natural geography are the best reflection of the world, then why do most of our classroom maps simplify the environment and emphasis political boundaries?
- Can we make maps that combine natural geography, political geography, functional geography, and human geography?

ENDURING UNDERSTANDING

IMP-1

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

LEARNING OBJECTIVE

IMP-1.A

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

ESSENTIAL KNOWLEDGE

IMP-1.A.1

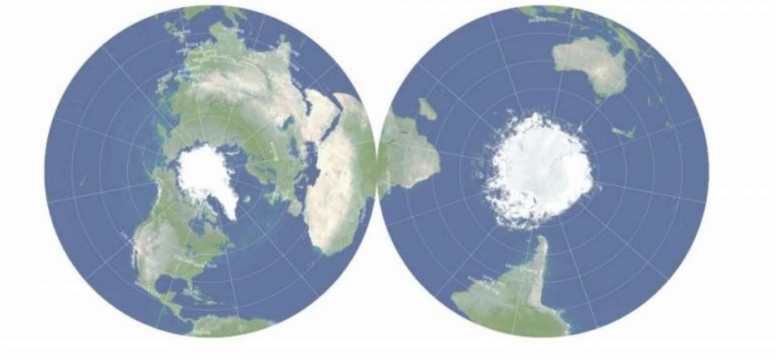
Types of maps include reference maps and thematic maps.

IMP-1.A.2

Types of spatial patterns represented on maps include absolute and relative distance and direction, clustering, dispersal, and elevation.

IMP-1.A.3

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



Satellite image of the planet from Google Earth (2021)

UNIT 1 TOPIC 1.1 (INTRODUCTION TO MAPS)

Key quotes

- "Maps are the original, and still most commonly used, infographics." (Connectography, xxi)
- "...the world map is an ever evolving collision of environment, politics, technology, and demographics." *(Move, 1)*
- "We can never know the world without a map, nor definitively represent it with one." Jerry Brotton, A History of the World in 12 Maps

Key questions

- How have maps evolved over the millennia?
- What biases are contained in various map projections?
- What would be the elements of an ideal map?

ENDURING UNDERSTANDING

IMP-1

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

LEARNING OBJECTIVE

IMP-1.B

Identify different methods of geographic data collection.

ESSENTIAL KNOWLEDGE

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.

Richard Gott, Robert Vanderbei and David Goldberg argue that the most accurate map would be a two-sided disc.

UNIT 1 TOPIC 1.2 (GEOGRAPHIC DATA)

Insights

- Earth Observation (EO) and Geographical Information Systems (GIS) represent a suite of technologies that help us to constantly update our maps via satellite imagery from space and user-generated data on the ground.
- Online mapping technologies like Google Earth and Microsoft Virtual Earth are changing the way geospatial data is viewed and shared, making it available to a wider public audience.

Key quotes

- “Maps have gone from Britannica to Wiki…The cartographic revolution will leave almost nothing to the imagination.” (Connectography, xxiii)
- “Satellite imagery of our changing climate fuses with billions of political, economic, and social data points to produce vivid scenarios for humankind.” *(Move, 350)*

Key questions

- Can you think of written accounts of geography that have improved our maps?
- What have been the biggest improvements in GIS data collection since the early days of topographical mapping?

UNIT 1 TOPIC 1.3 (THE POWER OF GEOGRAPHIC DATA)

ENDURING UNDERSTANDING

IMP-1

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

LEARNING OBJECTIVE

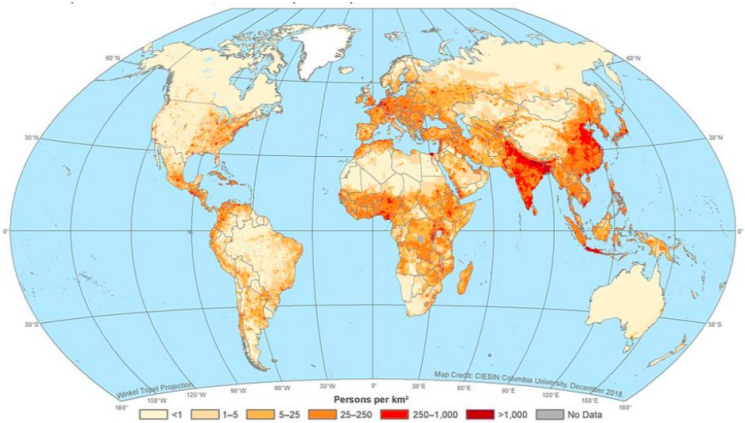
IMP-1.C

Explain the geographical effects of decisions made using geographical information.

ESSENTIAL KNOWLEDGE

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.



World map generated with a combination of census data and satellite imagery by Columbia University

Key quotes

- "To forecast which places will succeed or fail in the decades ahead requires taking a holistic look at political, economic, technological, social, and environmental factors, projecting how they intersect with each other, and building scenarios for how each geography may adapt to this unending complexity." *(Move, 9)*
- People "want to live in places where technology serves the people." *(Move, 326)*

Key questions

- Which GIS tools would be most useful for business, personal, and government uses?
- What insights can a combination of census data and satellite imagery provide us?
- How can the power of geographic data be wielded to make informed decisions about the future?

ENDURING UNDERSTANDING

PSO-1

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

LEARNING OBJECTIVE

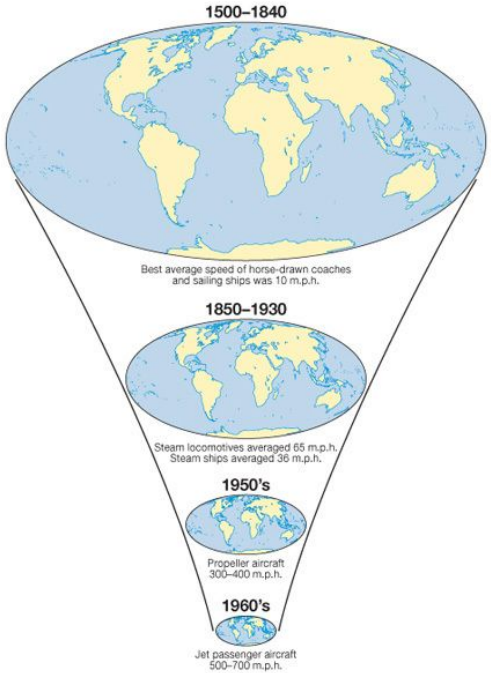
PSO-1.A

Define major geographic concepts that illustrate spatial relationships.

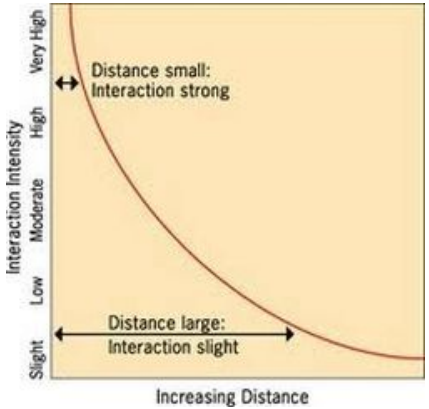
ESSENTIAL KNOWLEDGE

PSO-1.A.1

Spatial concepts include absolute and relative location, space, place, flows, distance decay, time-space compression, and pattern.



< David Harvey's (1989) time-space compression



Distance decay model

UNIT 1 TOPIC 1.4 (SPATIAL CONCEPTS)

Key quotes

- "Connectivity and mobility transform the meaning of space." *(Move, 302)*
- Immanuel Kant wrote of a "philosophical topography" to explain how spaces and places shape human experience and knowledge. (Robert B. Louden, The Last Frontier: The Importance of Kant's Geography)

Key questions

- How can absolute and relative location, space, place, flows, and pattern be represented in maps?
- How has globalization changed the meaning of space?
- How does technology interact with geography?

ENDURING UNDERSTANDING

PSO-1

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

LEARNING OBJECTIVE

PSO-1.B

Explain how major geographic concepts illustrate spatial relationships.

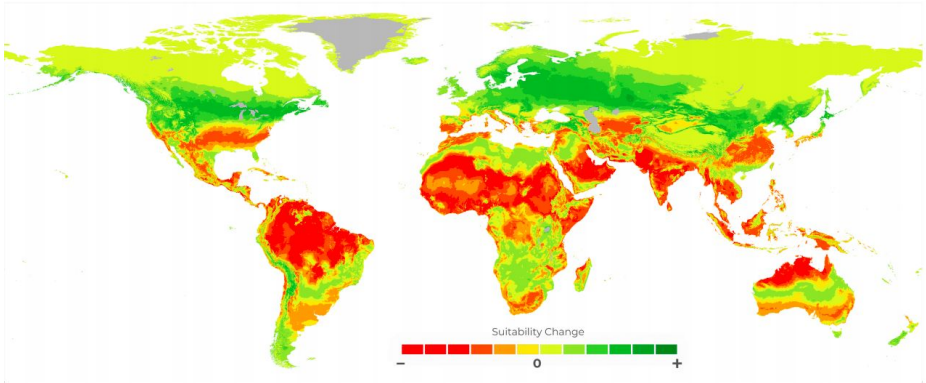
ESSENTIAL KNOWLEDGE

PSO-1.B.1

Concepts of nature and society include sustainability, natural resources, and land use.

PSO-1.B.2

Theories regarding the interaction of the natural environment with human societies have evolved from environmental determinism to possibilism.



Regions in red will have average daily temperatures above 30°C and become unsuitable for human habitation by 2070 or sooner. Lighter shaded regions will become more suitable for settlement over time.

Key quotes

- "Nature is among the major forces that have determined out human geography for the past thousands of years—and in turn, our human geography has shaped it." *(Move, 12)*
- The current global warming trend is extremely likely to be the result of human activity since the mid-20th century (NASA)
- "The optimal geographies for human habitation are shifting as temperatures rise." *(Move, 34)*

Key questions

- Provide your own definition for the neologism "climatography."
- How should we approach sustainability, natural resources, and land use in the face of climate change?
- Is environmental determinism or possibilism a better theoretical framework to view human-environmental interactions today?

ENDURING UNDERSTANDING

PSO-1

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

LEARNING OBJECTIVE

PSO-1.C

Define scales of analysis used by geographers.

PSO-1.D

Explain what scales of analysis reveal.

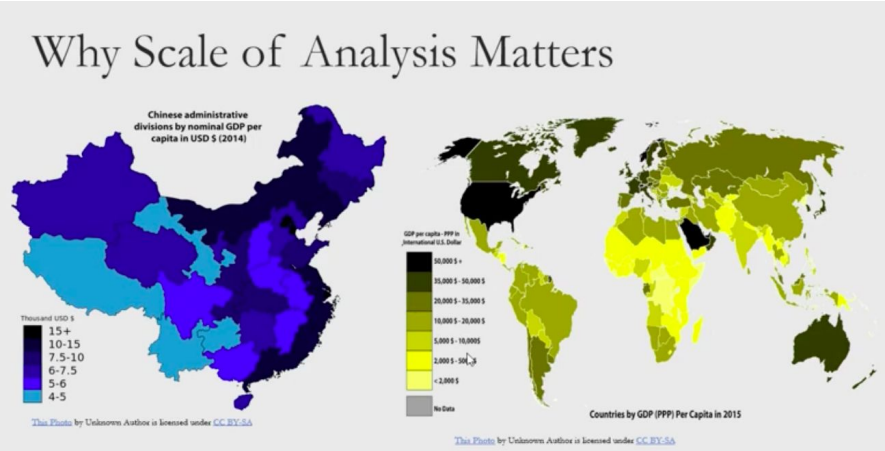
ESSENTIAL KNOWLEDGE

PSO-1.C.1

Scales of analysis include global, regional, national, and local.

PSO-1.D.1

Patterns and processes at different scales reveal variations in, and different interpretations of, data.



National level data (left) can provide more nuanced information than global level data (right).

UNIT 1 TOPIC 1.6 (SCALES OF ANALYSIS)

Insights

- At the global scale, geographers identify broad patterns encompassing the entire world.
- At the local scale, geographers recognize that each place on Earth is in some ways unique.
- Between the local and global, geographers construct a national and regional scales. A nation is the borders of a political entity. A region is an area characterized by a unique combination of features.

Key quotes

- Scale is “the relationship between any phenomenon and Earth as a whole.” (Jim Rubenstein, *Defining Geographic Scales*)

Key questions

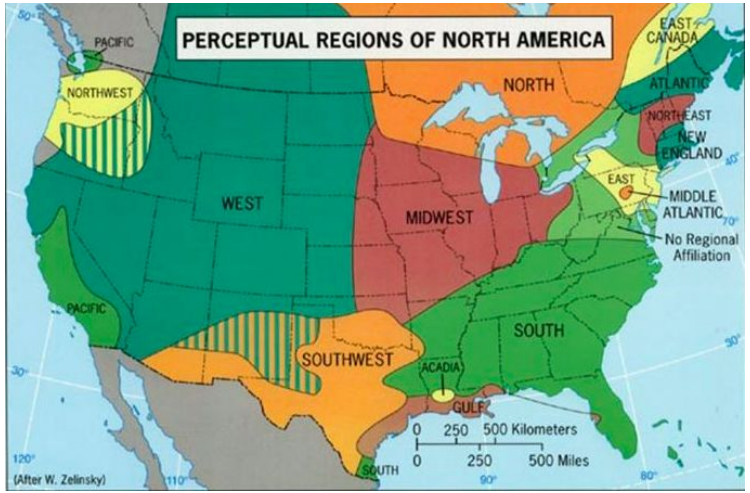
- What do scales of analysis reveal about spatial relationships?
- Why is it important to look at data through different scales? When might one scale of analysis be more useful than another?

ENDURING UNDERSTANDING

SPS-1

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

LEARNING OBJECTIVE	ESSENTIAL KNOWLEDGE
SPS-1.A 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.



Regional analysis involves understanding similarities and differences relative to the relationships between people and places.

UNIT 1 TOPIC 1.7 (REGIONAL ANALYSIS)

Insights

- Formal region: area in which everyone shares one or more characteristics
- Functional region: area organized around a hub
- Perceptual/vernacular region: area that people believe to exist as part of their cultural identity

Key quotes

- “We use terms like ‘insider’ and ‘outsider’ to denote national distinctions, but in reality, our world is already a collection of regional mélanges.” *(Move, 25)*

Key questions

- Can you identify examples of formal, functional, and perceptual/vernacular regions?
- Why is regionalizing space a good tool of spatial analysis?

UNIT 2

12–17% AP EXAM WEIGHTING | ~19–20 CLASS PERIODS

Population and Migration Patterns and Processes

Developing Understanding

BIG IDEA 1
Patterns and Spatial Organization PSO
- How does where and how people live impact global cultural, political, and economic patterns?

BIG IDEA 2
Impacts and Interactions IMP
- How does the interplay of environmental, economic, cultural, and political factors influence changes in population?

BIG IDEA 3
Spatial Patterns and Societal Change SPS
- How do changes in population affect a place's economy, culture, and politics?

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.

Insights

- Geography is destiny + Demography is destiny → Mobility is destiny: from population and location as the most important factors determining our fate to the ability to move. *(Move, 13)*
- The concept of mobility blends the material and philosophical. It raises questions such as: Why are we moving, and what do those shifts reveal about our needs and desires? Then there are political and legal questions to explore: Who is allowed to move? What restrictions do we face on movement and why? And last but not least, there are normative questions: Where should people go? What is the optimal distribution of people around the world?" *(Move, 16)*

Key questions

- Do you think that "demography is destiny" or "mobility is destiny"? Why?
- What are some of the pressing environmental, economic, political, and cultural factors influencing our world population today? In the near future?

ENDURING UNDERSTANDING

PSO-2

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

LEARNING OBJECTIVE	ESSENTIAL KNOWLEDGE
PSO-2.A Identify the factors that influence the distribution of human populations at different scales.	**PSO-2.A.1** Physical factors (e.g., climate, landforms, water bodies) 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.
PSO-2.B Define methods geographers use to calculate population density.	**PSO-2.B.1** The three methods for calculating population density are arithmetic, physiological, and agricultural.
PSO-2.C 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.

Today's Human Geography

The current human population is just under 8 billion. Nearly 5 billion people reside in Asia, 1 billion in Africa, 750 million in Europe, 600 million in North America, and 425 million in South America.

Today we are densely concentrated in the equatorial and tropical latitudes - next we may disperse into the vast northern expanses.

UNIT 2 TOPIC 2.1 (POPULATION DISTRIBUTION)

Key quotes

- To understand where populations are distributed requires "taking a holistic look at political, economic, technological, social, and environmental factors, projecting how they intersect with each other, and building scenarios for how each geography may adapt to this unending complexity." *(Move, 9)*

Key questions

- Why do physical and human factors that influence population distribution vary according to the scale of analysis?
- How might the world's population distribution change in the future? Why?
- What are the advantages and disadvantages of using arithmetic density? Physiological density? Agricultural density?

UNIT 2 TOPIC 2.2 (CONSEQUENCES OF POPULATION DISTRIBUTION)

ENDURING UNDERSTANDING

PSO-2

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

LEARNING OBJECTIVE

PSO-2.D

Explain how population distribution and density affect society and the environment.

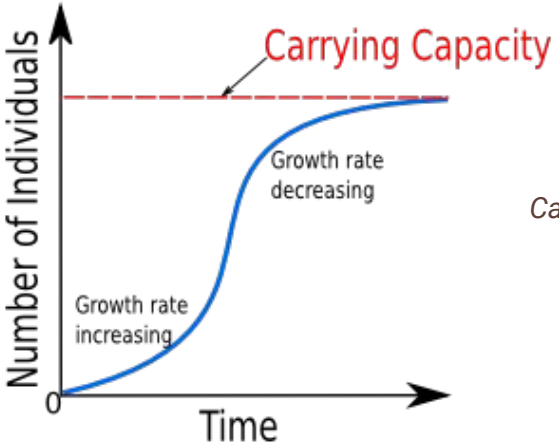
ESSENTIAL KNOWLEDGE

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.



Carrying capacity is the greatest number of people the environment of an area can support sustainably.

Insights

- American Geographical Society chairman Chris Tucker argues that the ideal world population is 3 billion, roughly what it was in the mid-twentieth century, a time when we benefited from industrialization but before the acceleration of global warming. But today we stand at nearly triple that number of people.
- Former Obama administration science advisor John Holdren called for a "planetary regime," a super-agency to regulate the global environment, managing all natural resources and even regulating global trade and setting regional population quotas.

Key quotes

- "Demographic decline in rich countries sparks socioeconomic tension, while booming populations in poor countries retards equitable development." *(Move, 347)*
- "Asia's spectacular economic rise in recent decades was propelled by breakneck population growth, urbanization, and industrialization, all of which have spiked its emissions output." *(Move, 13)*

Key questions

- Compare the political, economic, and social consequences of a densely populated region versus a sparsely populated region.
- How will we build a more sustainable civilization in the future?

UNIT 2 TOPIC 2.3 (POPULATION COMPOSITION)

ENDURING UNDERSTANDING

PSO-2

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

LEARNING OBJECTIVE

PSO-2.E

Describe elements of population composition used by geographers.

PSO-2.F

Explain ways that geographers depict and analyze population composition.

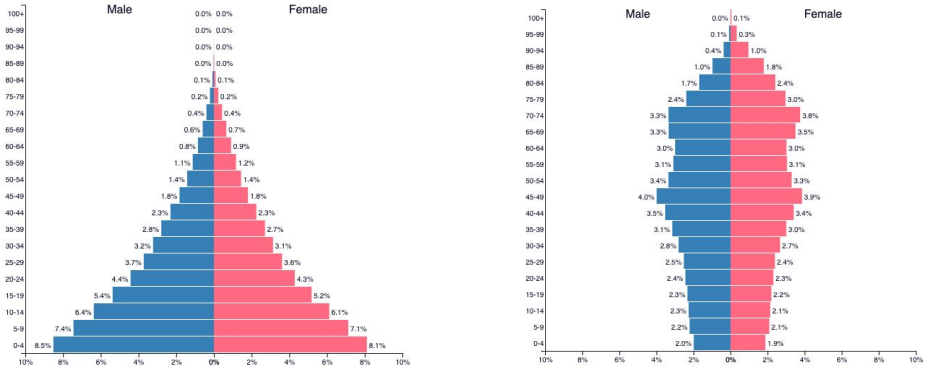
ESSENTIAL KNOWLEDGE

PSO-2.E.1

Patterns of age structure and sex ratio vary across different regions and may be mapped and analyzed at different scales.

PSO-2.F.1

Population pyramids are used to assess population growth and decline and to predict markets for goods and services.



Population pyramid (2019 data) of Nigeria (left) and Japan (right).

Key quotes

- *Demographic imbalances*: "We have wealthy countries across North America and Europe with 300 million and counting aging people and decaying infrastructure—but roughly 2 billion young people sitting idle in Latin America, the Middle East, and Asia who are capable of caring for the elderly and maintaining public services." *(Move, 13)*
- We often talk about a world that's aging but, as of 2020, millennials and Gen-Z "represent more than 60% of the world population." *(Move, 29)*

Key questions

- Why is it important to understand the population composition of a region?
- Why do different countries have different age structures and sex ratios?
- How does population composition influence markets for goods and services?

UNIT 2 TOPIC 2.4 (POPULATION DYNAMICS)

ENDURING UNDERSTANDING

IMP-2

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

IMP-2.A

Explain factors that account for contemporary and historical trends in population growth and decline.

ESSENTIAL KNOWLEDGE

IMP-2.A.1

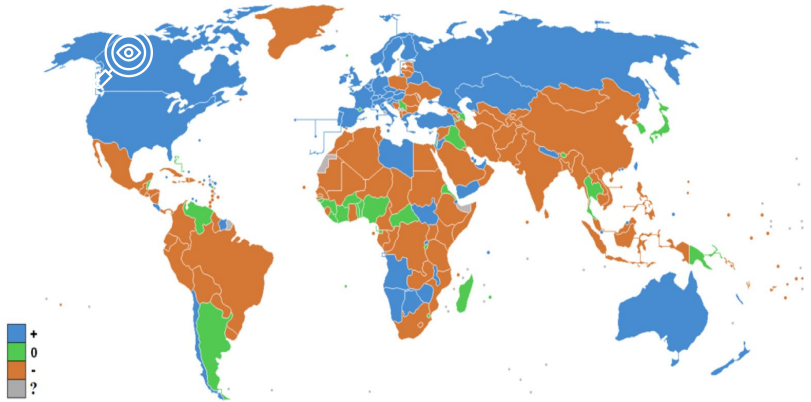
Demographic factors that determine a population's growth and decline are fertility, mortality, and migration.

IMP-2.A.2

Geographers use the rate of natural increase and population-doubling time to explain population growth and decline.

IMP-2.A.3

Social, cultural, political, and economic factors influence fertility, mortality, and migration rates.



Blue countries have are gaining in population due to immigration, while the orange countries have more emigrants than immigrants.

Insights

- *The rate of natural increase is the difference between the number of live births and the number of deaths in a year.*
- *Population doubling time is the projected amount of time it will take a population to double.*

Key quotes

- *"In the coming decades, entire overpopulated regions of the world might be abandoned, while some depopulated territories may gain massively in population and become new civilizational centers." (Move, 15)*

Key questions

- What are some social, cultural, political, and economic factors that influence population growth or decline?
- Why do some countries experience higher migration rates than other countries?

UNIT 2 TOPIC 2.5 (THE DEMOGRAPHIC TRANSITION MODEL)

ENDURING UNDERSTANDING

IMP-2

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

IMP-2.B

Explain theories of population growth and decline.

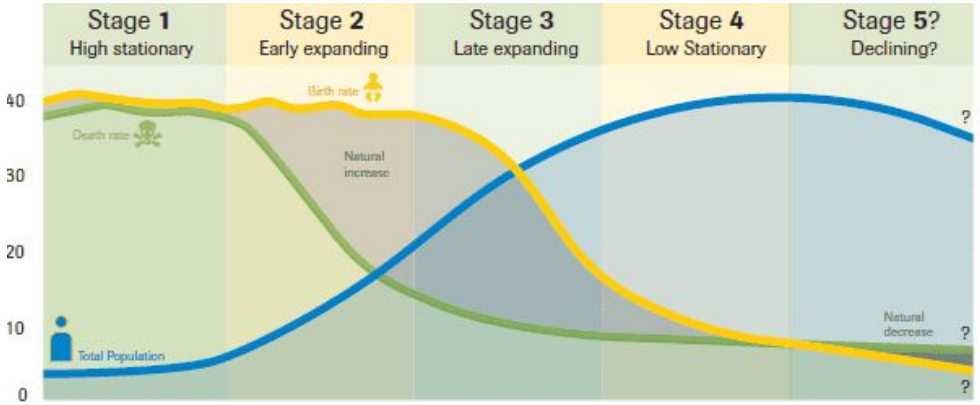
ESSENTIAL KNOWLEDGE

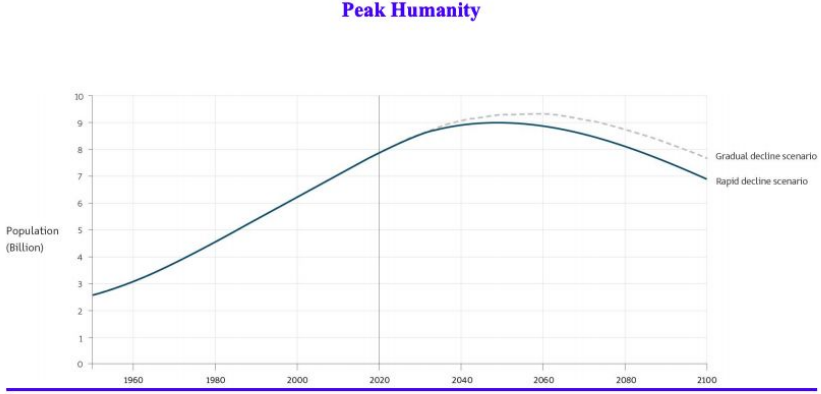
IMP-2.B.1

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.





The world population is nearing its zenith and will begin to decline. The only question is how quickly.

Key quotes

- *"Our demographic destiny is no longer to multiply but to shrink. What will be the impact on our geography of a world population that will soon level off and even begin to decline by mid-century?" (Move, 49)*

Key questions

- What are the characteristics of each stage in the demographic transition model?
- In the near future, what factors will influence population growth or decline in your own country?

UNIT 2 TOPIC 2.6 (MALTHUSIAN THEORY)

ENDURING UNDERSTANDING

IMP-2

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

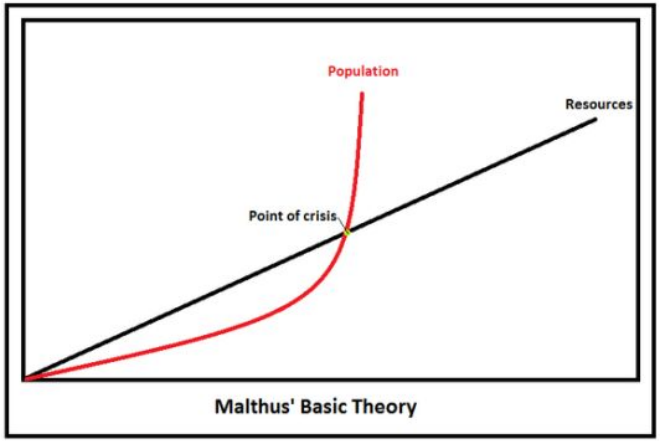
IMP-2.B

Explain theories of population growth and decline.

ESSENTIAL KNOWLEDGE

IMP-2.B.3

Malthusian theory and its critiques are used to analyze population change and its consequences.



Key quotes

- "Witnessing the surging population enabled by the Industrial Revolution, the English scholar Thomas Malthus famously predicted in 1798 that an ever more crowded world would face a crisis of insufficient food supply." *(Move, 47)*
- "Malthus feared population growth outstripping food supply, but today about 30% of the world population is obese, and only 13% malnourished." *(Move, 49)*

Key questions

- How would you critique Malthus's theory?
- Why do you think Malthusian theory is still studied if it has proven incorrect?
- What environmental, economic, cultural, and political factors explain why population growth is not dramatically outstripping food supply today?

ENDURING UNDERSTANDING

SPS-2

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

LEARNING OBJECTIVE

SPS-2.A

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

ESSENTIAL KNOWLEDGE

SPS-2.A.1

Types of population policies include those that promote or discourage population growth, such as pronatalist, antinatalist, and immigration policies.

Year	Number of countries	
	Policy to reduce fertility	Direct government support for family planning
1976	40	95
1986	54	117
1996	82	143
2005	78	143
2013	84	160

Policies and government support to reduce population growth. Data from UN World Population Policies Database (2015).

Key quotes

- "In 1972, the members of the Club of Rome (a group of financial, political and academic elites) published The Limits to Growth, arguing that our planet...could not sustainably support such a fast-growing population. They advocated for stronger population control policies...This neo-Malthusian thinking was so influential that China launched a one-child policy and India began forced sterilizations of men and women. *(Move, 48)*
- "From Canada to Singapore, highly skilled migrant programs are proliferating as countries seek to recruit skilled workers." *(Move, 284)*

Key questions

- Do you think governments should implement population control policies?
- What is the ideal population policy that your country needs?
- How can population data and demographic theories help to inform population policies?
- How important is immigration in stabilizing a country's population size?

UNIT 2 TOPIC 2.8 (WOMEN AND DEMOGRAPHIC CHANGE)

Why are women having fewer children globally? What are the implications?

ENDURING UNDERSTANDING

SPS-2

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

LEARNING OBJECTIVE

SPS-2.B

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

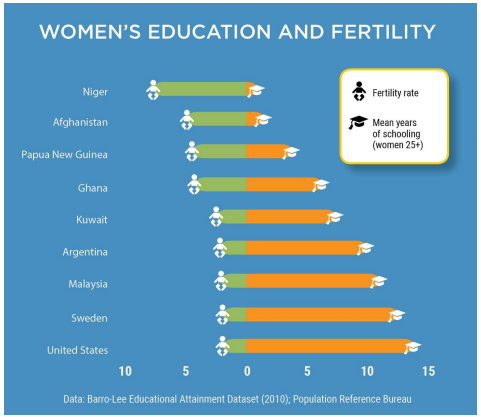
ESSENTIAL KNOWLEDGE

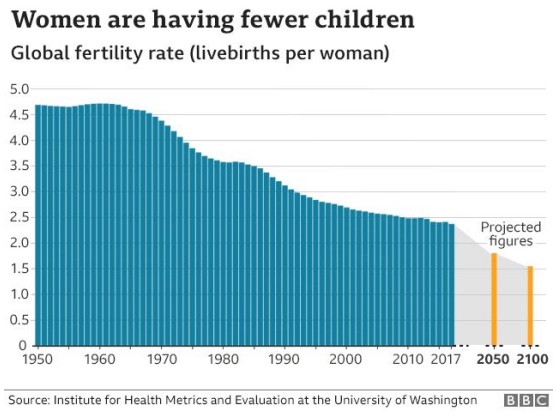
SPS-2.B.1

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.





Key quotes

- In the mid-1900s, "contraception—in the form of condoms and diaphragms, as well as the advent of the birth control pill in the 1960s—helped drive down global fertility. The latter was also crucial to women's empowerment in homes and schools, in communities and the workplace." *(Move, 48)*
- "Worldwide, women are getting better educated and having fewer children, making them among the most eagerly mobile of global youth. But sadly, most of the world's forced migrants are women from Asian and Arab countries." *(Move, 65)*

Key questions

How do gender values and the political, economic, and social rights granted to women influence demographic transition?

Why do the roles and status of women vary across countries and regions?

UNIT 2 TOPIC 2.9 (AGING POPULATIONS)

ENDURING UNDERSTANDING

SPS-2

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

LEARNING OBJECTIVE

SPS-2.C

Explain the causes and consequences of an aging population.

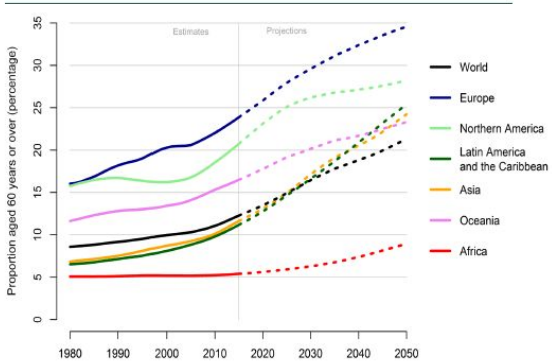
ESSENTIAL KNOWLEDGE

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.



Current and projected growth of the elderly population. Data from UN Department of Economic and Social Affairs (2017).

Key quotes

- "Currently, there are an estimated 728 million persons aged 65 years or over in the world. In the next 30 years, this number is expected to increase to more than double its present value, reaching 1.5 billion older persons in 2050." (United Nations)
- "Life expectancy for Japanese born today has reached 107, but the country is losing a net of 500,000 per year from its current population of 125 million." *(Move, 54)*

Key questions

- What are the political, social, and economic consequences of an aging population?
- What policies should governments implement in order to respond aging populations, if any?
- What types of countries have high dependency ratios?
- What strategies can be undertaken to better care for the elderly as longevity increases?

UNIT 2 TOPIC 2.10 (CAUSES OF MIGRATION)

ENDURING UNDERSTANDING

IMP-2

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

IMP-2.C

Explain how different causal factors encourage migration.

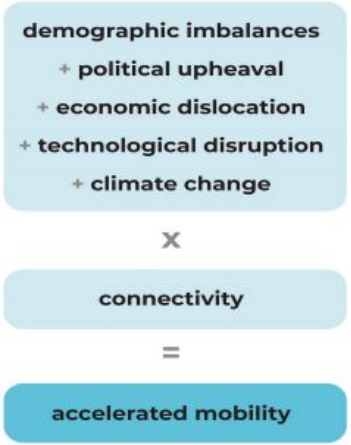
ESSENTIAL KNOWLEDGE

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.



Key quotes

- "The swirl of humanity will only get more intense as each of the forces shaping our human geography gathers steam:
- Demographics: Lopsided imbalances between an aging north and a youthful south able to provide the labor force the north needs
- Politics: Refugees and asylum seekers from civil wars and failing states, as well as those fleeing ethnic persecution, tyranny, or populism
- Economics: Migrants in search of opportunity, workers laid off due to outsourcing, or employees forced into early retirement by financial crises
- Technology: Industrial automation displacing factory and logistics jobs, while algorithms and AI make skilled jobs redundant
- Climate: Long-term phenomena such as rising temperatures and sea levels and falling water tables, but also seasonal disasters like floods and typhoons." *(Move, 27)*

Key questions

- Which push/pull factor of migration do you think is the strongest?
- How can human geographers measure the different push/pull factors and their consequences on migration?
- What factors might influence *you* to migrate?

UNIT 2 TOPIC 2.11 (FORCED AND VOLUNTARY MIGRATION)

ENDURING UNDERSTANDING

IMP-2

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

IMP-2.D

Describe types of forced and voluntary migration.

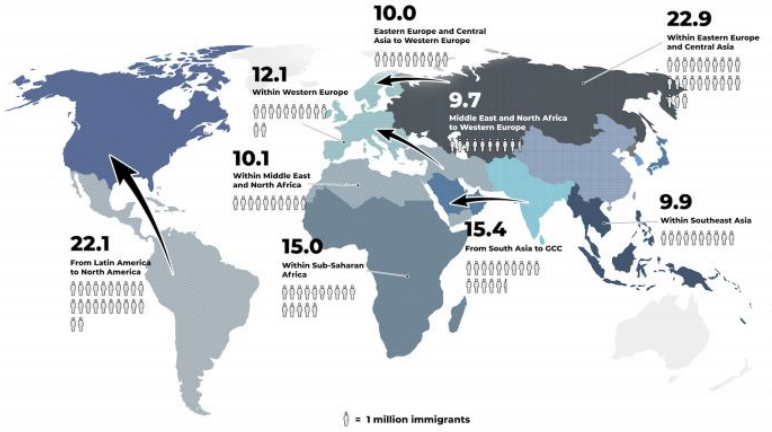
ESSENTIAL KNOWLEDGE

IMP-2.D.1

Forced migrations include slavery and events that produce refugees, internally displaced persons, and asylum seekers.

IMP-2.D.2

Types of voluntary migrations include transnational, transhumance, internal, chain, step, guest worker, and rural-to-urban.



Most migration takes place within regions or between adjacent regions. The largest migrant stock remains among the former Soviet republics of Russia, Eastern Europe and Central Asia, followed by the South Asian population in the Gulf countries.

Insights

- According to the International Organization of Migration (IoM), about three times the number of people migrate internally as internationally. There are approximately 40 million internally displaced peoples (IDPs).
- Migrants today represent 10% of global GDP, including almost $550 billion in annual remittances transferred across borders in 2019.

Key quotes

- "More than a 38 million refugees and migrants are on the move today, both within countries and across borders, fleeing mass violence and poverty. This is the largest tide of rootlessness in human history." (Paul Salopek, *National Geographic*)
- "The term refugee implies a narrow and transient group, but what we have is semi-permanently resettled people such as Syrians in neighboring states, Palestinians in Jordan, Afghans in Pakistan, and Somalis in Kenya." *(Move, 38)*
- "Asians represent the majority of the 150 million semi-permanent guest workers who crisscross the world's farmlands, construction sites, and other infrastructure projects." *(Move, 251)*

UNIT 2 TOPIC 2.12 (EFFECTS OF MIGRATION)

ENDURING UNDERSTANDING

IMP-2

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

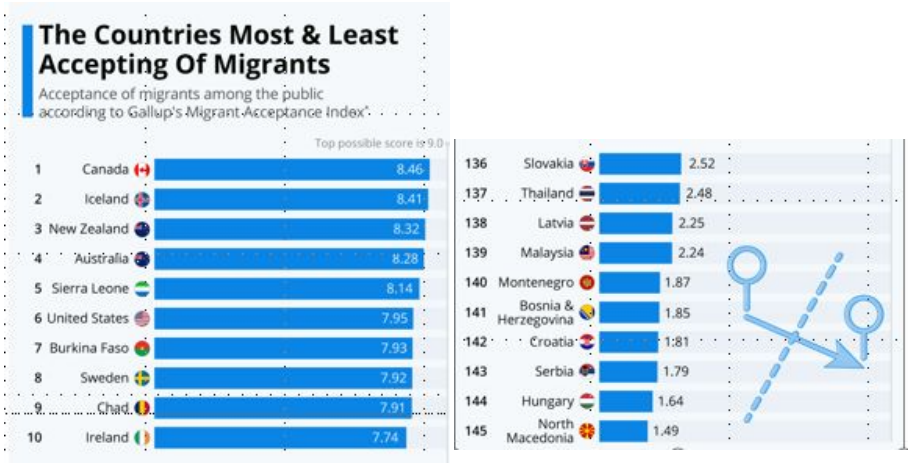
IMP-2.E

Explain historical and contemporary geographic effects of migration.

ESSENTIAL KNOWLEDGE

IMP-2.E.1

Migration has political, economic, and cultural effects.



Insights

- Migration affects both origin and destination countries. For example, emigration can create brain drain in a country but also benefit the country's economy due to remittances. Immigration can diffuse culture and fill low-skilled job openings in developed countries.
- In 2018, governments around the world agreed to a "Global Compact for Safe, Orderly, and Regular Migration" that recognized the rights of migrants to work and contribute rather than be a financial burden.

Key quotes

- "After World War I, migration became so bureaucratized that passports are now one of the chief barriers to a more sensible human geography." *(Move, 291)*
- "During the 2016 wave of Arab migrants into Europe, German chancellor Angela Merkel initially advocated for the rights of asylum seekers, but later shifted towards stricter controls to avoid losing political ground to far-right anti-immigrant parties." *(Move, 346)*

Key questions

- What the effects of migration in your country?
- How have the political, economic, and cultural effects of migration changed across time?

UNIT 3 | 12–17% AP EXAM WEIGHTING | ~19–20 CLASS PERIODS

Cultural Patterns and Processes

Developing Understanding

BIG IDEA 1
Patterns and Spatial Organization PSO
- How does where people live and what resources they have access to impact their cultural practices?

BIG IDEA 2
Impacts and Interactions IMP
- How does the interaction of people contribute to the spread of cultural practices?

BIG IDEA 3
Spatial Patterns and Societal Change SPS
- How and why do cultural ideas, practices, and innovations change or disappear over time?

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.

Insights

- "We should be very cynical about the notion that "culture is destiny," as if there is a fixed national culture passed down from generation to generation without modification or adaptation. Just as there are few pure nation-states, there is no immutable culture." *(Move, 255)*
- Cultural geography: the study of the relationship between culture and space.

Key questions

- Why is it important to study different cultural patterns and processes?
- Why is it increasingly difficult to define "culture" today?
- How do different forms of culture (i.e. religion, language) reflect and influence the geography of places at different scales?

ENDURING UNDERSTANDING

PSO-3

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

LEARNING OBJECTIVE

PSO-3.A

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

ESSENTIAL KNOWLEDGE

PSO-3.A.1

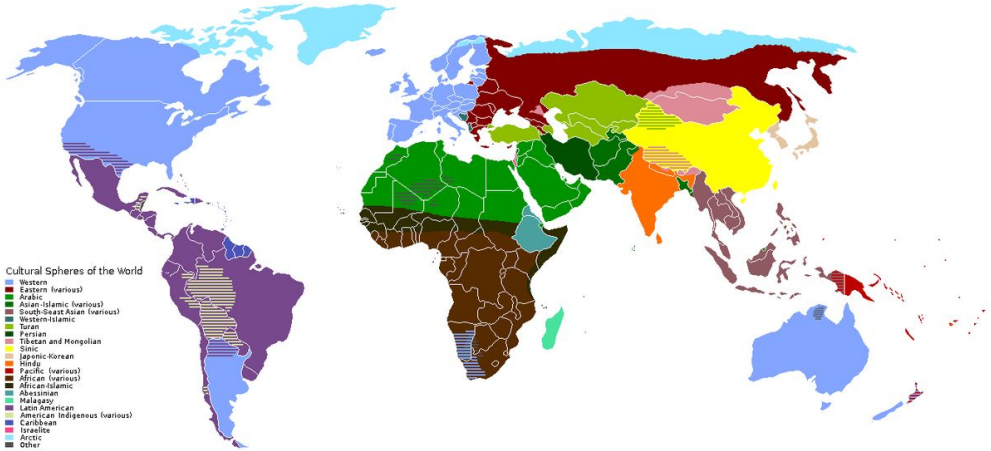
Culture comprises the shared practices, technologies, attitudes, and behaviors transmitted by a society.

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.



UNIT 3 TOPIC 3.1 (INTRODUCTION TO CULTURE)

Insights

- There are two main types of culture: material and non-material. Material culture is physically tangible, while non-material culture is intangible.
- Culture consists of habits at the individual level and customs at the group level.

Key quotes

- Cultural communities can exist beyond states. (Immanuel Kant, Thomas Paine)
- “Cultures differentiate racial, ethnic, and class groups” and play a role in “producing inequalities and class boundaries.” (American Sociological Association)

Key questions

- Describe some traits of a culture that you identify with.
- Why do people develop different attitudes towards cultural difference?
- What can culture reveal about a group of people and/or place?

ENDURING UNDERSTANDING

PSO-3

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

LEARNING OBJECTIVE	ESSENTIAL KNOWLEDGE
PSO-3.B 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.
PSO-3.C 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.

An example of a cultural landscape: Honghe Hani rice terraces in China.

UNIT 3 TOPIC 3.2 (CULTURAL LANDSCAPES)

Key quotes

- Cultural ecology: the study of how the natural environment influences cultural groups (Julian Steward)
- “Drawn to the flat and fertile landscape of Italy’s Po Valley, Sikh families from northern India have been milking cows and making cheese there since the 1980s...” *(Move, 174)*

Key questions

- Provide some examples of cultural landscapes that exist today and that existed historically.
- How are cultural landscapes related to the spatial concept of regional analysis?
- What are examples of cultures transcending geography due to similar landscapes?

ENDURING UNDERSTANDING

PSO-3

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

LEARNING OBJECTIVE

PSO-3.D

Explain patterns and landscapes of language, religion, ethnicity, and gender.

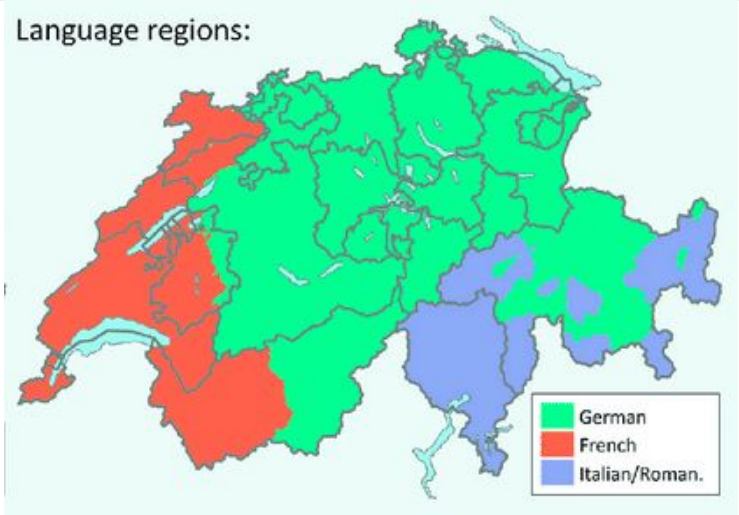
ESSENTIAL KNOWLEDGE

PSO-3.D.1

Regional patterns of language, religion, and ethnicity contribute to a sense of place, enhance placemaking, and shape the global cultural landscape.

PSO-3.D.2

Language, ethnicity, and religion are factors in creating centripetal and centrifugal forces.



Language regions of Switzerland.

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UNIT 3 TOPIC 3.3 (CULTURE PATTERNS)

Key quotes

- Cultural ecology: the study of how the natural environment influences cultural groups (Julian Steward)
- "Drawn to the flat and fertile landscape of Italy's Po Valley, Sikh families from northern India have been milking cows and making cheese there since the 1980s..." *(Move, 174)*

Key questions

- Provide some examples of cultural landscapes that exist today and that existed historically.
- How are cultural landscapes related to the spatial concept of regional analysis?
- What are examples of cultures transcending geography due to similar landscapes?

UNIT 3 TOPIC 3.4 (TYPES OF DIFFUSION)

ENDURING UNDERSTANDING

IMP-3

The interaction of people contributes to the spread of cultural practices.

LEARNING OBJECTIVE

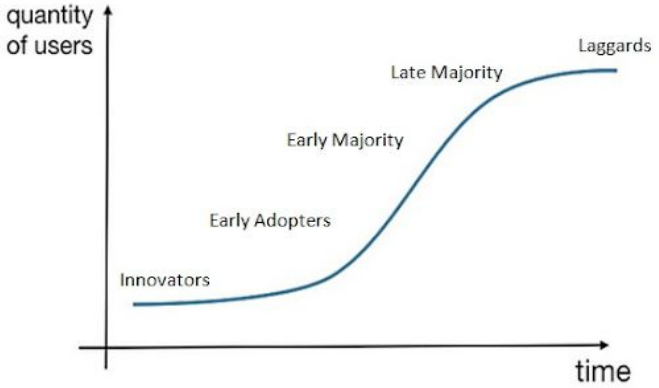
IMP-3.A

Define the types of diffusion.

ESSENTIAL KNOWLEDGE

IMP-3.A.1

Relocation and expansion—including contagious, hierarchical, and stimulus expansion—are types of diffusion.



s-curve (model of technology adoption)

Torsten Hagerstrand's "Diffusion S Curve," which was established in the context of technology diffusion but can be applied to understand cultural diffusion.

Key quotes

- Diasporas represent relocation diffusion. For example, Turks in Germany are one of the most settled diasporas. *(Move, 164)*
- Inter-racial marriages, which are increasingly prevalent, can also create cultural diffusion: "Nobody is forced to marry outside their ethnic group; we do so voluntarily and in ever growing numbers." *(Move, 255)*

Key questions

- List examples of the different types of cultural diffusion (relocation and expansion).
- What factors hinder and promote cultural diffusion?
- What role do transnational companies play in cultural diffusion?

ENDURING UNDERSTANDING

SPS-3

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

LEARNING OBJECTIVE

SPS-3.A

Explain how historical processes impact current cultural patterns.

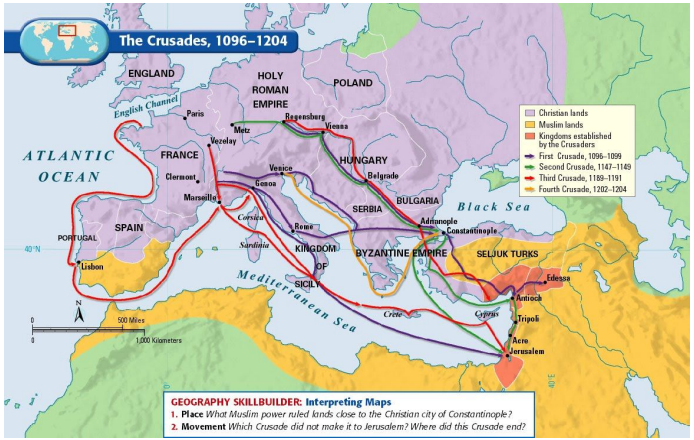
ESSENTIAL KNOWLEDGE

SPS-3.A.1

Interactions between and among cultural traits and larger global forces can lead to new forms of cultural expression; for example, creolization and lingua franca.

SPS-3.A.2

Colonialism, imperialism, and trade helped to shape patterns and practices of culture.



As a result of the Crusades, cultural diffusion between Europe and the Middle East increased.

UNIT 3 TOPIC 3.5 (HISTORICAL CAUSES OF DIFFUSION)

Insights

- Lingua francas, pidgins, and creoles each represent a long history of communication between various groups of people and can be important gauges of what was taking place at the time the language developed.

Key quotes

- “Postcolonial ties brought millions of Indians and Pakistanis to England, as well as Vietnamese, Algerians, and Moroccans to France.” *(Move, 22)*

Key questions

- How can the development of cultural traits be subject to historical context?
- Can you name any cultural ideas, practices, or innovations that have disappeared over time?
- Have colonialism and imperialism produced unequal relationships among different cultural groups?

ENDURING UNDERSTANDING

SPS-3

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

LEARNING OBJECTIVE

SPS-3.A

Explain how historical processes impact current cultural patterns.

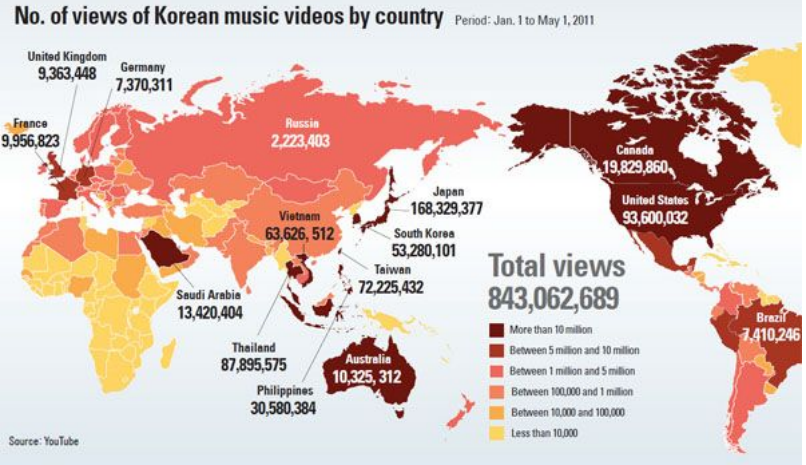
ESSENTIAL KNOWLEDGE

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.



Globalization has increased the rate of communicati on worldwide, enabling pop culture to diffuse much more rapidly.

UNIT 3 TOPIC 3.6 (CONTEMPORARY CAUSES OF DIFFUSION)

Key quotes

- "Fusion prevails in the end. Our destiny is to be a global mongrel civilization." *(Move, 255)*
- "Technology has dematerialized goods, services, and money, turning them into bits instantaneously warped around the world. It was inevitable that this would happen to human minds too." *(Move, 285)*

Key questions

- Are you more in favor of global cultural convergence of cultural divergence?
- Do you think there is a global "digital community" and "Internet culture"? Why or why not?
- How does contemporary cultural diffusion compare and contrast with historical cultural diffusion?

ENDURING UNDERSTANDING

IMP-3

The interaction of people contributes to the spread of cultural practices.

LEARNING OBJECTIVE

IMP-3.B

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

ESSENTIAL KNOWLEDGE

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

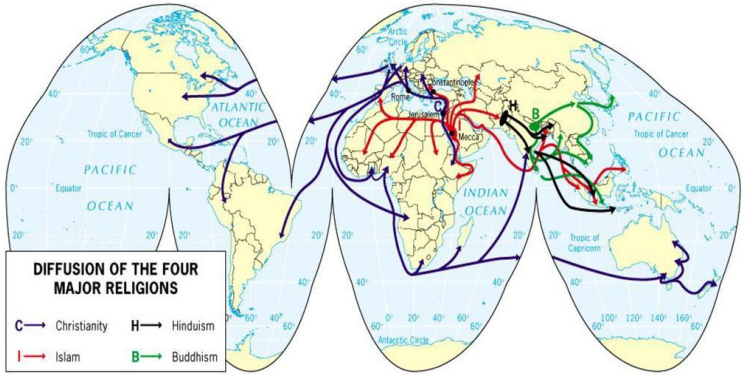
Religions have distinct places of origin from which they diffused to other locations through different processes. Practices and belief systems impacted how widespread the religion diffused.

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.



UNIT 3 TOPIC 3.7 (DIFFUSION OF RELIGION AND LANGUAGE)

Key quotes

- "Over 11,000 years ago, intensifying Eurasian migrations gave rise to the entire Indo-European family of languages that boasts 3 billion speakers today." *(Move, 19)*
- "Religious identity is by definition stateless. Christians and Muslims can be considered the largest communities in the world with an estimated 2.2 billion Christians and 1.8 billion Muslims spread across the planet." *(Move, 84)*

Key questions

- Why is it valuable to track the diffusion of religion and language?
- What do patterns of religious and linguistic diffusion tell us about cultural diffusion and interactions as a whole?
- What factors promote the diffusion of religion and language? Does it depend on the type of religion and/or language?

UNIT 3 TOPIC 3.8 (EFFECTS OF DIFFUSION)

ENDURING UNDERSTANDING

SPS-3

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

LEARNING OBJECTIVE

SPS-3.B

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

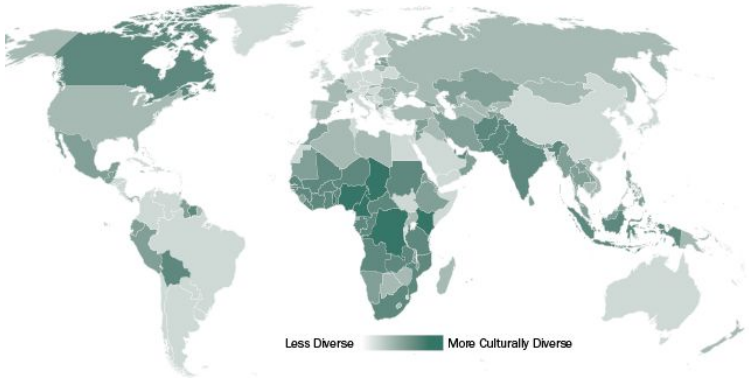
ESSENTIAL KNOWLEDGE

SPS-3.B.1

Acculturation, assimilation, syncretism, and multiculturalism are effects of the diffusion of culture.

Cultural Diversity Around the World

The countries with the most and least cultural diversity



Based on Table A1 in "Economic Effects of Domestic and Neighboring Countries' Cultural Diversity" by Erkan Goren. Center for Transnational Studies, University of Bremen Working Paper No. 16/2013

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Darker shaded countries have more cultural diversity.

Key quotes

- "In reality, the tribal definition of the national 'self' is no longer the norm against which multiculturalism is pushing but rather the reverse." *(Move, 169)*
- "Wherever migrants have come from, the challenge of assimilation is a generational one." *(Move, 162)*

Key questions

- Describe how the effects of cultural diffusion are relevant to your life today.
- How do processes of cultural diffusion alter cultural landscapes?
- How does cultural diversity and diffusion look like in your ideal world?

UNIT 4

12–17% AP EXAM WEIGHTING | ~19–20 CLASS PERIODS

Political Patterns and Processes

Developing Understanding

BIG IDEA 1
Patterns and Spatial Organization PSO
- How do historical and current events influence political structures around the world?

BIG IDEA 2
Impacts and Interactions IMP
- How are balances of power reflected in political boundaries and government power structures?

BIG IDEA 3
Spatial Patterns and Societal Change SPS
- How can political, economic, cultural, or technological changes challenge state sovereignty?

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.

Insights

- "Political geography often assumes that border lines are permanent. In reality, states are more like porous containers shaped by the flows of people and resources within and across them. Without these, what is a state even worth?" *(Move, 11)*
- "The question is: Can we discover a new cartographic pragmatism that brings political geography more in line with today's needs?" *(Move, 14)*

Key questions

- Are our current political boundaries the best way to organize the world? Why or why not?
- How may political boundaries change in the future?
- What role does the state play in our everyday lives?
- Which social, historical, and economic factors have influenced modern political maps at various scales?
- How has globalization changed the way that people live?

UNIT 4 TOPIC 4.1 (INTRODUCTION TO POLITICAL GEOGRAPHY)

ENDURING UNDERSTANDING

PSO-4

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

LEARNING OBJECTIVE

PSO-4.A

For world political maps:

a. Define the different types of political entities.

b. Identify a contemporary example of political entities.

ESSENTIAL KNOWLEDGE

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 semiautonomous regions, such as American Indian reservations.

A political map is one of the most common types of maps.

Key quotes

- One geographic layer that most determines our human geography is the political: where the territorial borders are that demarcate states." *(Move, 12)*
- Europe is "the birthplace of the ethnically defined nation state." *(Move, 74)*

Key questions

- Give examples of the different types of political entities, and explain how they are different from one another.
- Why are some political entities officially recognized and others are not?
- Why are political maps useful? In what situations?
- How can information from political maps be combined with information from other types of maps to develop novel insights?

UNIT 4 TOPIC 4.2 (POLITICAL PROCESSES)

ENDURING UNDERSTANDING

PSO-4

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

LEARNING OBJECTIVE

PSO-4.B

Explain the processes that have shaped contemporary political geography.

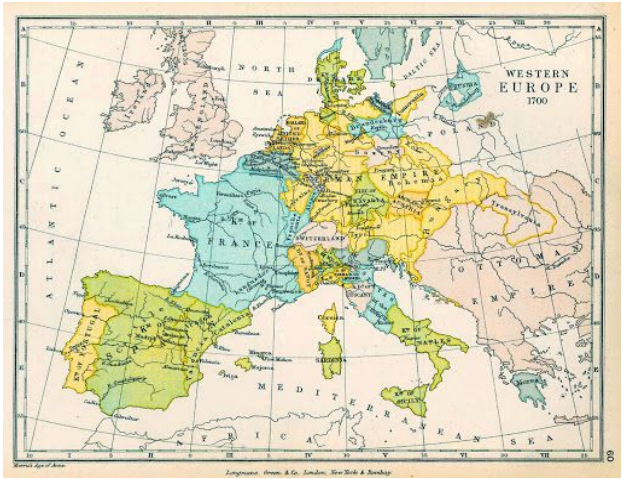
ESSENTIAL KNOWLEDGE

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.



Map of Europe in 1700.

Insights

- The idea that nations as independent political entities with borders is a relatively recent phenomenon. Nationalism was first theorized during the Enlightenment era in the 1600s.
- Both World Wars led to drastic changes in political maps.

Key quotes

- "The world's political map looks the way it does mostly for contingent reasons: Where ancient civilizations settled, where European empires conquered and divided, and where natural features separate populations." *(Move, 14)*
- "Political sovereignty has been a defining feature of our geography for...three centuries." *(Move, 33)*

Key questions

- Throughout history, how have political boundaries been established and maintained?
- How do you think political boundaries may change in the near future, if at all?
- Why is the concept of sovereignty so important today?

UNIT 4 TOPIC 4.3 (POLITICAL POWER AND TERRITORIALITY)

ENDURING UNDERSTANDING

PSO-4

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

LEARNING OBJECTIVE

PSO-4.C

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

ESSENTIAL KNOWLEDGE

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.

Mackinder's "heartland theory" and Spykman's "rimland theory" are examples of ways that political theorists have predicted geopolitical behavior.

Insights

- Friedrich Ratzel's "organic theory" asserts that states need living space to survive, which leads to the annexation of other lands.
- Halford Mackinder's "heartland theory" claims that land-based power leads to world domination.
- Nichols Spykman's "rimland theory" predicts that control of the seas and coastal areas leads to world domination.

Key quotes

- "Sovereignty today serves to demarcate zones of political control." *(Move, 337)*

Key questions

- Why do some states grow strong while others become weak?
- Why is political power rooted in territoriality?
- How does state competition for power influence human geography?

UNIT 4 TOPIC 4.4 (DEFINING POLITICAL BOUNDARIES)

ENDURING UNDERSTANDING

IMP-4

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

LEARNING OBJECTIVE

IMP-4.A

Define types of political boundaries used by geographers.

ESSENTIAL KNOWLEDGE

IMP-4.A.1

Types of political boundaries include relic, superimposed, subsequent, antecedent, geometric, and consequent boundaries.

Relic boundaries are political boundaries that existed in the past and that can still be detected on the landscape, like the Berlin Wall. >

Key quotes

- "So what's stopping us from using our connectivity to the fullest? The root of our collective inertia lies in borders—physical, legal, and psychological." *(Move, 14)*
- An example of superimposed boundaries is "the notorious 1885 Congress of Berlin... where Africa got many of its straight line borders." *(Move, 337)*

Key questions

- What factors determine how political boundaries are classified?
- What factors do you think should determine the location of political boundaries?

UNIT 4 TOPIC 4.5 (THE FUNCTION OF POLITICAL BOUNDARIES)

ENDURING UNDERSTANDING

IMP-4

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

LEARNING OBJECTIVE

IMP-4.B

Explain the nature and function of international and internal boundaries.

ESSENTIAL KNOWLEDGE

IMP-4.B.1

Boundaries are defined, delimited, demarcated, and administered to establish limits of sovereignty, but they are often contested.

IMP-4.B.2

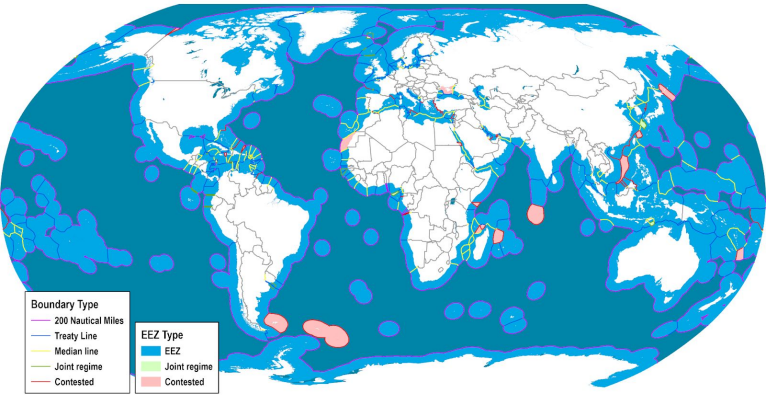
Political boundaries often coincide with cultural, national, or economic divisions. However, some boundaries are created by demilitarized zones or policy, such as the Berlin Conference.

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.



Maritime boundaries are primarily regulated by the UN Convention on the Law of the Sea.

Key quotes

- "Our many arbitrary colonial-era borders hinder cooperation on today's existential demographic and environmental challenges. For example, India and Pakistan dispute the Sir Creek estuary that forms the Feni River's delta into the Arabian Sea. Here and elsewhere, countries can't agree whether a river border should be defined at the midpoint or the banks." *(Move, 336)*
- "Russia is deploying armored icebreakers and nuclear submarines to assert its territorial claims in the Arctic." *(Move, 213)*

Key questions

- Why do disputes over political boundaries emerge? What are the different types of disputes? Give examples.
- How can territorial disputes be resolved?

UNIT 4 TOPIC 4.6 (INTERNAL BOUNDARIES)

ENDURING UNDERSTANDING

IMP-4

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

LEARNING OBJECTIVE

IMP-4.B

Explain the nature and function of international and internal boundaries.

ESSENTIAL KNOWLEDGE

IMP-4.B.5

Voting districts, redistricting, and gerrymandering affect election results at various scales.

A new map for America: how might the current state boundaries in the United States be rearranged?

Insights

- Constitutionally, the United States election system depends on the existence of voting districts.
- However, the drawing of new internal boundaries with techniques like redistricting and gerrymandering have led to instances of unequal voter representation.

Key quotes

- "The real divide is actually within: urban versus rural, wealthy versus underclass, and young versus old." *(Move, 71)*

Key questions

- What is the function of internal boundaries?
- Can internal boundaries shift over time? Can you think of any disputes over internal boundaries?
- In your opinion, what is the "ideal" way to manage voting districts in the United States?

UNIT 4 TOPIC 4.7 (FORMS OF GOVERNANCE)

ENDURING UNDERSTANDING

IMP-4

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

LEARNING OBJECTIVE

IMP-4.C

Define federal and unitary states.

IMP-4.D

Explain how federal and unitary states affect spatial organization.

ESSENTIAL KNOWLEDGE

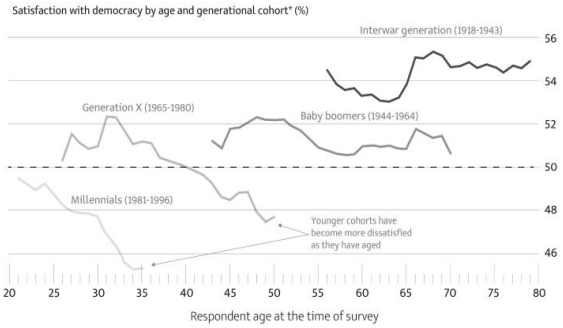
IMP-4.C.1

Forms of governance include unitary states and federal states.

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.

The best form of government...?



* Survey from 75 countries with 4 million respondents between 1973 and 2020
Source: Roberto Foa, Centre for the Study of Democracy, Cambridge University

Younger generations have been increasingly disillusioned with democracy; millennial respondents exhibited the lowest level of satisfaction with their government.

Key quotes

- Federal system: “My general plan would be to make the states one as to every thing connected with foreign nations, and several as to every thing purely domestic.” *(Thomas Jefferson)*
- A unitary system comprises of one central government that holds all of the political power.

Key questions

- Compare and contrast federal and unitary states?
- Which is a better system of governance: federal or unitary?
- How is democracy related (or unrelated) to federal and unitary states?

UNIT 4 TOPIC 4.8 (DEFINING DEVOLUTIONARY FACTORS)

ENDURING UNDERSTANDING

SPS-4

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

LEARNING OBJECTIVE

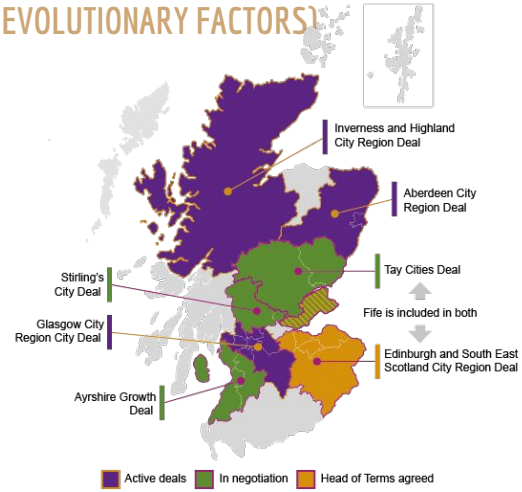
SPS-4.A

Define factors that lead to the devolution of states.

ESSENTIAL KNOWLEDGE

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.



Devolution movements within Scotland.

Insights

- Devolutionary forces can eventually lead to state fragmentation and the creation of autonomous regions or wholly new states.
- An example of devolutionary forces creating new states is the process of Balkanization in the former Yugoslavia.

Key quotes

- "In the 1970s, Canada's main internal cultural fissure revolved around the semi-autonomous French speaking province of Quebec." *(Move, 144)*
- Devolution in the United Kingdom: "if Britain doesn't cater to Scotland's interests, the separatist movement will once again gain steam." *(Move, 178)*

Key questions

- What are some examples of devolution throughout history?
- Do you think devolution will become more prevalent in the near future? Why or why not?

ENDURING UNDERSTANDING

SPS-4

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

LEARNING OBJECTIVE

SPS-4.B

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

ESSENTIAL KNOWLEDGE

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 Sudan and the former Soviet Union.

SPS-4.B.2

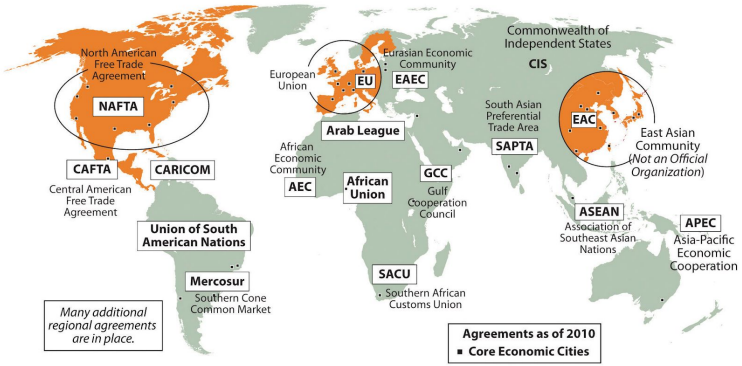
Advances in communication technology have facilitated devolution, supranationalism, and democratization.

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.



Examples of some of the supranational organizations that exist today.

UNIT 4 TOPIC 4.9 (CHALLENGES TO SOVEREIGNTY)

Key quotes

- Cosmopolitan democracy: the ideals of democratic government should not stop at the borders of nations but also apply to our global institutions. Only then can we "globalize democracy while at the same time democratize globalization." (David Held)
- "Angela Merkel, Europe's elder stateswoman, used the seventy-fifth anniversary of the end of World War II to denounce the very idea of 'the nation-state alone.'" *(Move, 74)*
- "We tend to think of nations as having a common mindset, but millennials and Gen-Z share values on a global scale—especially the right to connectivity, mobility, and sustainability." *(Move, 88)*

Key questions

- How is time-space compression related to challenges to sovereignty?
- What are other ways of organizing the world beyond the notion of the "state" and political boundaries?

UNIT 4 TOPIC 4.10 (CONSEQUENCES OF CENTRIFUGAL AND CENTRIPETAL FORCES)

ENDURING UNDERSTANDING

SPS-4

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

LEARNING OBJECTIVE

SPS-4.C

Explain how the concepts of centrifugal and centripetal forces apply at the state scale.

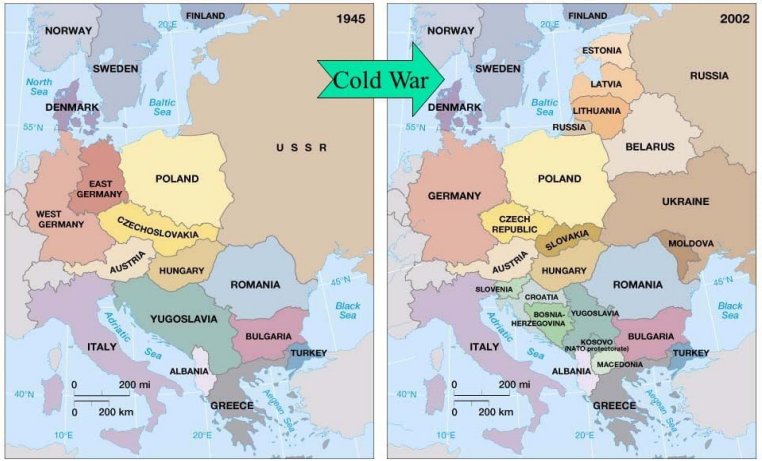
ESSENTIAL KNOWLEDGE

SPS-4.C.1

Centrifugal forces may lead to failed states, uneven development, stateless nations, and ethnic nationalist movements.

SPS-4.C.2

Centripetal forces can lead to ethnonationalism, more equitable infrastructure development, and increased cultural cohesion.



Religion, ethnicity, and language can act as centrifugal forces that alter political boundaries.

Key quotes

- "There are still tens of millions of stateless people fighting for nationhood, whether Palestinians or Kurds." *(Move, 70)*
- Peter Singer argues that the logical conclusion of holding all people as equal (cosmopolitanism) as well as striving for maximum collective happiness (utilitarianism) is that the fortunate give as much as possible to those less fortunate, irrespective of their geography or nationality.

Key questions

- How do centrifugal and centripetal forces challenge or reinforce state sovereignty?
- Give examples of centrifugal and centripetal forces.

UNIT 5 | 12–17% AP EXAM WEIGHTING | ~19–20 CLASS PERIODS

Agriculture and Rural Land-Use Patterns and Processes

Developing Understanding

BIG IDEA 1
Patterns and Spatial Organization PSO
- How do a people's culture and the resources available to them influence how they grow food?

BIG IDEA 2
Impacts and Interactions IMP
- How does what people produce and consume vary in different locations?

BIG IDEA 3
Spatial Patterns and Societal Change SPS
- What kind of cultural changes and technological advances have impacted the way people grow and consume food?

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.

Insights

- "As we begin to plan to resettle populations, we should locate them...ideally near agriculture to avoid dependence on far-flung food supplies." *(Move, p. 222)*
- "We must modify the narrative that we have evolved from agriculture to towns to cities—with the former serving the latter without regard to environmental cost. Instead, we should rethink how and where we produce food and energy, how and where we consume it, and the distance between the two." *(Move, p. 309)*
- "Greenhouses are popping up to expand production of watermelons, cucumbers, tomatoes, pomegranates, cherries, and other fruits and vegetables, while the food processing industry is getting upgraded to extend the shelf-life and market reach of its agriculture." *(Move, p. 199)*

Key questions

- How does location influence food output and consumption around the globe?
- How have agricultural practices, food production, and food consumption changed over time?
- How is the global system of agriculture related to economic development?

UNIT 5 TOPIC 5.1 (INTRODUCTION TO AGRICULTURE)

ENDURING UNDERSTANDING

PSO-5

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

LEARNING OBJECTIVE

PSO-5.A

Explain the connection between physical geography and agricultural practices.

ESSENTIAL KNOWLEDGE

PSO-5.A.1

Agricultural practices are influenced by the physical environment and climatic conditions, such as the Mediterranean climate and tropical climates.

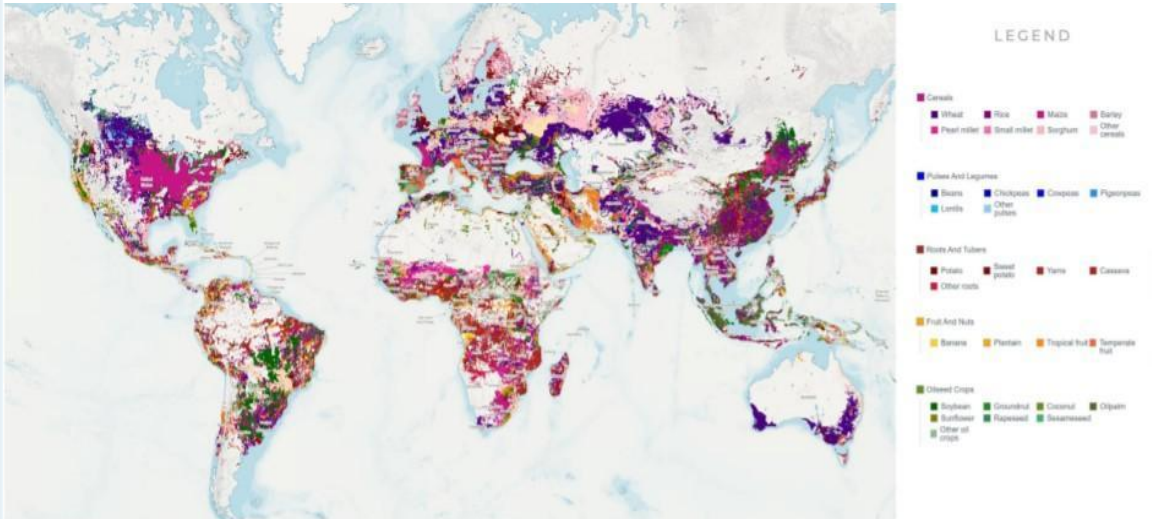
PSO-5.A.2

Intensive farming practices include market gardening, plantation agriculture, and mixed crop/livestock systems.

PSO-5.A.3

Extensive farming practices include shifting cultivation, nomadic herding, and ranching.

Global Distribution of Agricultural Production



Key quotes

- Global agriculture today largely overlaps with our population distribution. With the exception of the Arab world, food production is concentrated in geographies with the largest populations such as China, India, the United States, and Brazil. But rising temperatures and changing rainfall patterns are changing the optimal geographies for agricultural production." *(Move, 207)*

Key questions

- How do variations in physical geography affect agricultural practices and customs?
- How will climate change affect agricultural production and techniques?

UNIT 5 TOPIC 5.2 (SETTLEMENT PATTERNS AND SURVEY METHODS)

ENDURING UNDERSTANDING

PSO-5

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

LEARNING OBJECTIVE

PSO-5.B

Identify different rural settlement patterns and methods of surveying rural settlements.

ESSENTIAL KNOWLEDGE

PSO-5.B.1

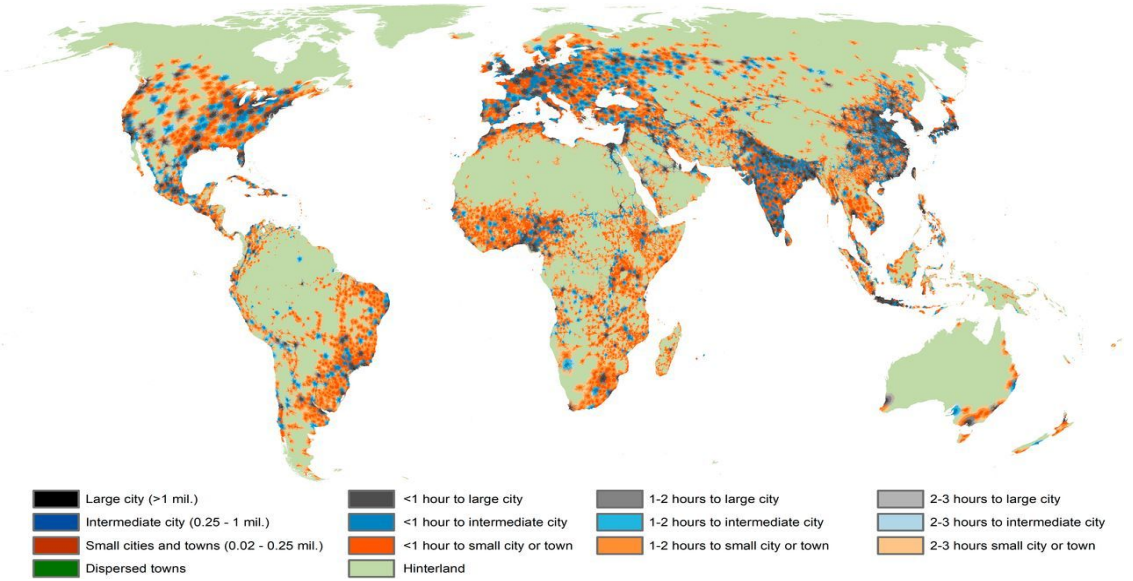
Specific agricultural practices shape different rural land-use patterns.

PSO-5.B.2

Rural settlement patterns are classified as clustered, dispersed, or linear.

PSO-5.B.3

Rural survey methods include metes and bounds, township and range, and long lot.



Urban Settlements and Rural Land Area >

Insights

- Freshwater is essential for agriculture. “Today two-thirds of the world population lives near rivers, and agriculture consumes 70 percent of our freshwater.” *(Move, 31)*
- Urban-rural catchment areas (URCAs) show the interdependence of urban centers and the surrounding rural areas. ¼ of the world population lives in peri-urban areas in proximity to smaller cities and towns, while in developing countries 64% live in small cities and towns or within their catchment areas. (Cattaneo, Nelson and McMenomy 2021)

Key questions

- How are rural settlement patterns affected by the availability of resources (e.g. freshwater and fertile land)?
- How do rural settlements differ from catchment areas?

UNIT 5 TOPIC 5.3 (AGRICULTURE ORIGINS AND DIFFUSIONS)

ENDURING UNDERSTANDING

SPS-5

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

LEARNING OBJECTIVE	ESSENTIAL KNOWLEDGE
SPS-5.A 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.
SPS-5.B Explain how plants and animals diffused globally.	**SPS-5.B.1** Patterns of diffusion, such as the Columbian Exchange and the agricultural revolutions, resulted in the global spread of various plants and animals.

The Columbian Exchange

Insights

- The Columbian Exchange is still relevant for the global diffusion of diseases and pandemics: “The “Homogenocene” is a name for the current ecological period, in which — thanks to the Columbian Exchange — the different parts of the world are becoming, in ecological terms, more and more alike. (...) Now all parts of the world share the same pool of species. The result is a more uniform biological world — and that extends to disease, too, as humanity in every part of the world faces the same spectrum of disease.” (Charles C. Mann, interview for Down to Earth)
- The First Agricultural Revolution (~10,000 BC, started in the Fertile Crescent) marked the transition from nomadic hunter-gatherers to a civilization of agricultural settlements (History.com)

Key questions

- How did the First Agricultural Revolution (which started around 10,000 BC in the Fertile Crescent) change settlement patterns and practices?
- What are the implications of the global diffusion of plants and animals for settlement patterns and for the global economy?

UNIT 5 TOPIC 5.4 (THE SECOND AGRICULTURAL REVOLUTION)

ENDURING UNDERSTANDING

SPS-5

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

LEARNING OBJECTIVE

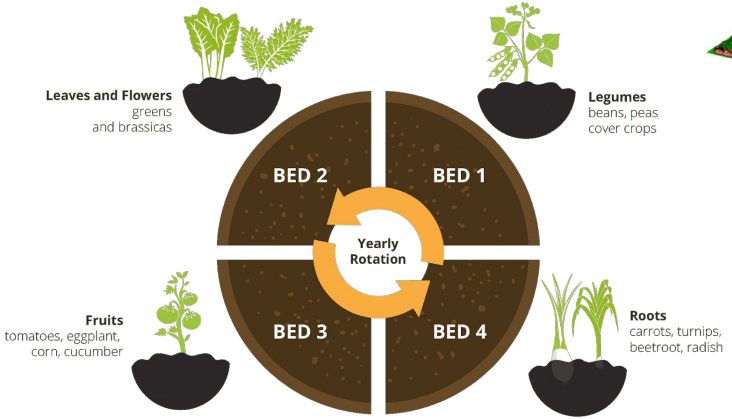
SPS-5.C

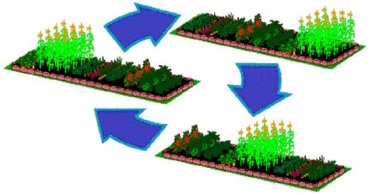
Explain the advances and impacts of the second agricultural revolution.

ESSENTIAL KNOWLEDGE

SPS-5.C.1

New technology and increased food production in the second agricultural revolution led to better diets, longer life expectancies, and more people available for work in factories.





Source: Insects and Organic Gardening

Insights

- The 18th century Second Agricultural Revolution that started in Britain introduced new technologies to increase production on existing land.
- Crop rotation is the practice of planting different crops sequentially on the same plot of land to avoid soil exhaustion, improving agricultural yield and profitability over time.

Key questions

- What were the immediate and the lasting impacts of the Second Agricultural Revolution?
- How did the Second Agricultural Revolution lead to the Industrial Revolution?

UNIT 5 TOPIC 5.5 (THE GREEN REVOLUTION)

ENDURING UNDERSTANDING

SPS-5

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

LEARNING OBJECTIVE

SPS-5.D

Explain the consequences of the Green Revolution on food supply and the environment in the developing world.

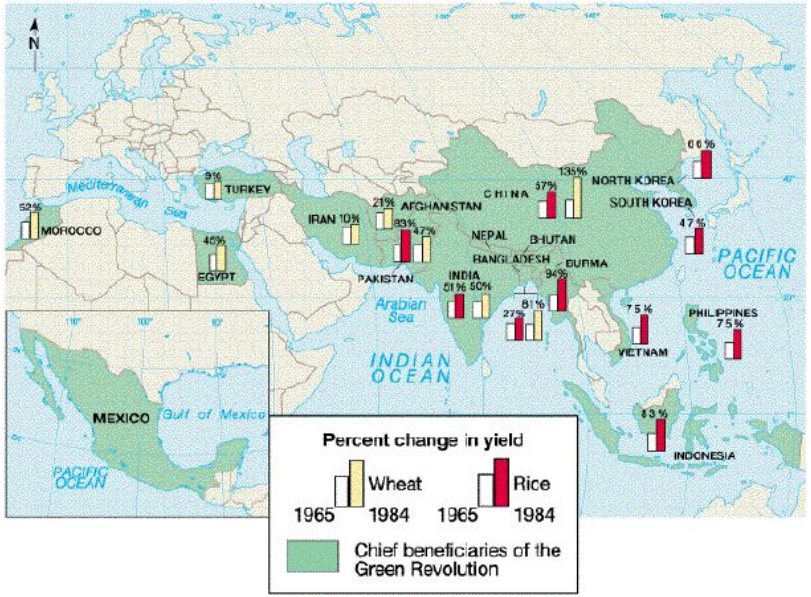
ESSENTIAL KNOWLEDGE

SPS-5.D.1

The Green Revolution was characterized in agriculture by the use of high-yield seeds, increased use of chemicals, and mechanized farming.

SPS-5.D.2

The Green Revolution had positive and negative consequences for both human populations and the environment.



Impact of the Green Revolution

Insights

- Thomas Malthus feared that a rapidly growing world population would at some point face food shortages
- "After World Wars I and II, the Green Revolution introduced fertilizers and pesticides that massively boosted global food supply for developing countries such as India, catapulting the global population from just over two billion people in 1945 to nearly four billion by 1970." *(Move, 47-8)*

Key questions

- What parts of the world were impacted most by the Green Revolution? Why?
- Do you think the positive consequences of the Green Revolution outweigh the negative? Why?

UNIT 5 TOPIC 5.6 (AGRICULTURAL PRODUCTION REGIONS)

ENDURING UNDERSTANDING

PSO-5

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

LEARNING OBJECTIVE

PSO-5.C

Explain how economic forces influence agricultural practices.

ESSENTIAL KNOWLEDGE

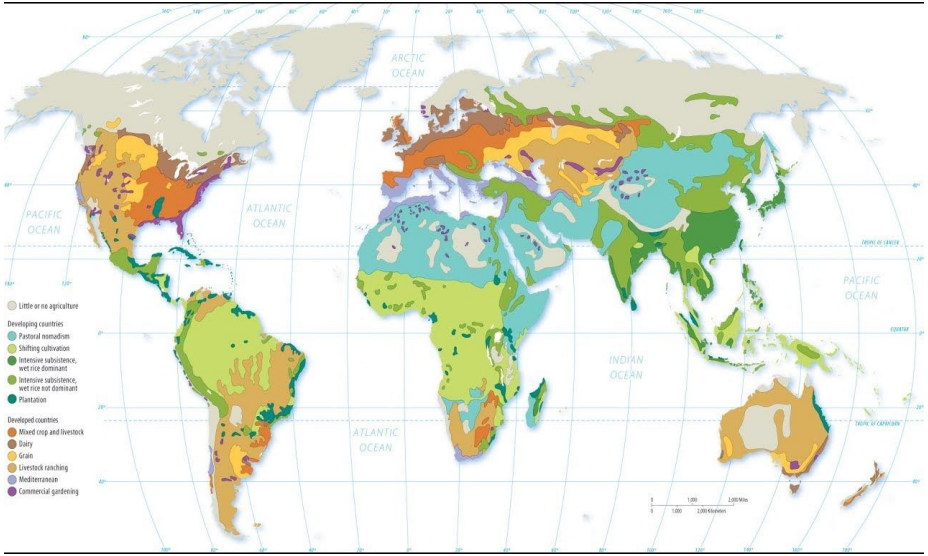
PSO-5.C.1

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).

Agricultural Production by Region >



Insights

- The introduction of industrial-scale agricultural fertilizers, first developed in 1908 by Fritz Haber, increased the ability of agricultural land to support human life more than twofold, allowing the earth to sustain a growing population (Erisman et al., 2008)
- “As Canada warms, its agricultural output has swelled, with organic farming and crop rotation across millions of hectares producing ever greater yields of wheat, legumes, millets, flax, and oats.” *(Move, 147)*

Key questions

- Explain the difference between (1) subsistence and commercial practices (2) intensive and extensive farming
- How are agricultural production regions shaping population dynamics and vice-versa?

UNIT 5 TOPIC 5.7 (SPATIAL ORGANIZATION OF AGRICULTURE)

ENDURING UNDERSTANDING

PSO-5

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

LEARNING OBJECTIVE

PSO-5.C

Explain how economic forces influence agricultural practices.

ESSENTIAL KNOWLEDGE

PSO-5.C.3

Large-scale commercial agricultural operations are replacing small family farms.

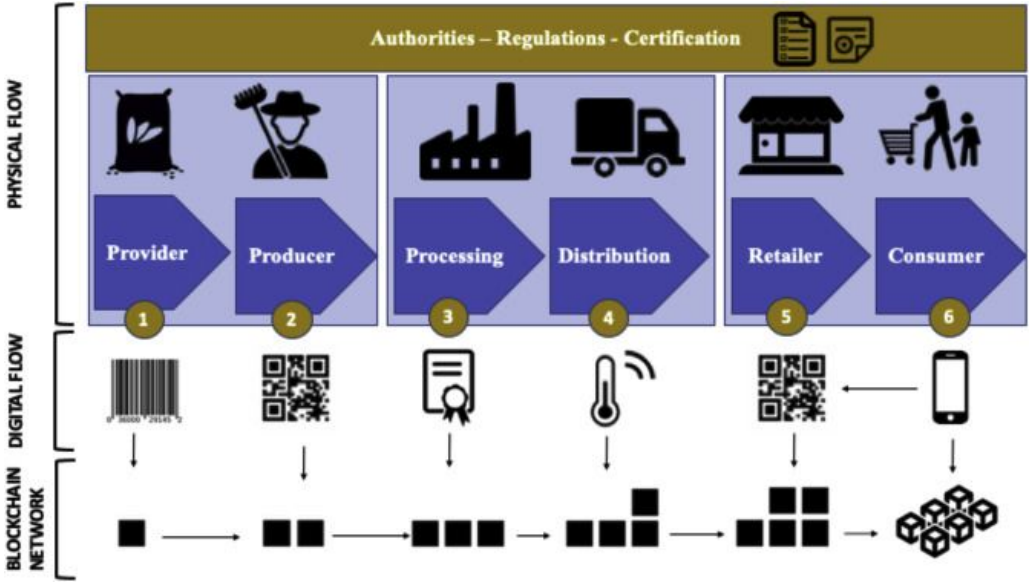
PSO-5.C.4

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.

Blockchain in Agriculture and the Supply Chain >



Insights

- Blockchain technologies are increasingly being used along the agricultural supply chain for increased transparency and efficiency. Blockchain records and stores information about food products from various parts of the supply chain - from provider and producer until retailer and consumer - and those can be accessed by scanning a QR code that contains all the information about that product. (Kamilaris et al. 2019)

Key questions

- Describe the agricultural commodity chain links and how each stage brings greater efficiency
- How has the development of new technologies changed the relationship between producer and consumer?

UNIT 5 TOPIC 5.8 (VON THUNEN MODEL)

ENDURING UNDERSTANDING

PSO-5

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

LEARNING OBJECTIVE

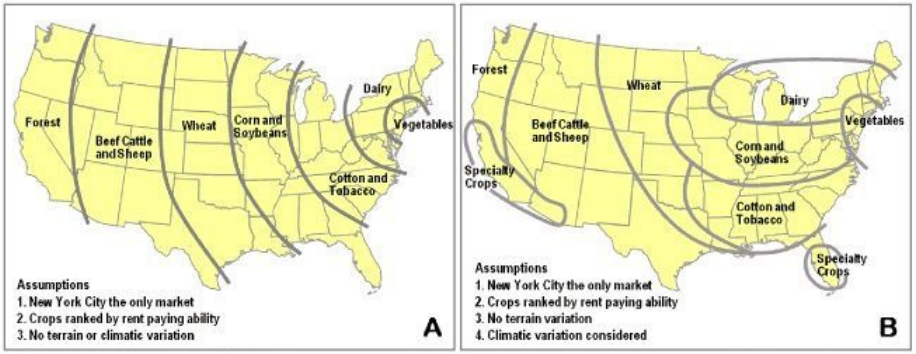
PSO-5.D

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

ESSENTIAL KNOWLEDGE

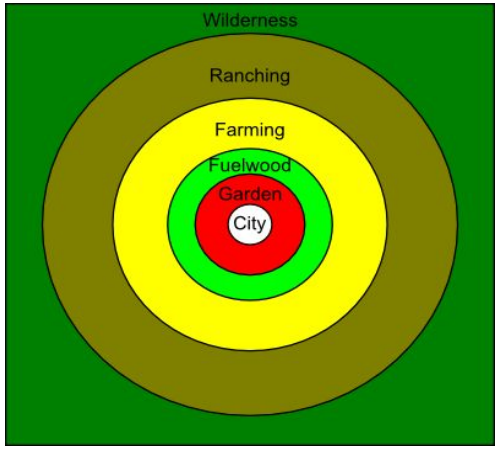
PSO-5.D.1

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.



Source: adapted from Stutz, R. and A. de Souza (1998) *The World Economy: Resources, Location, Trade and Development*, Third Edition, Toronto: Prentice Hall, p. 268.

Regions of specialty farming



The Von Thunen Model

Source: Debigate, based on Grotewold (1959)

Key quotes

- *"As we begin to plan to resettle populations, we should locate them further inland and at higher elevations, and ideally near agriculture to avoid dependence on far-flung food supplies." (Move, 222)*

Key questions

- In what cases might the Von Thunen model be not applicable or insufficient to explain patterns of agricultural production?
- According to the Von Thunen model, what would be the optimal way to resettle populations displaced by climate change?

ENDURING UNDERSTANDING

POS-5

Availability of resources and cultural practices influence agricultural practices and land use patterns.

LEARNING OBJECTIVE

PSO-5.E

Explain the interdependence among regions of agricultural production and consumption.

ESSENTIAL KNOWLEDGE

PSO-5.E.1

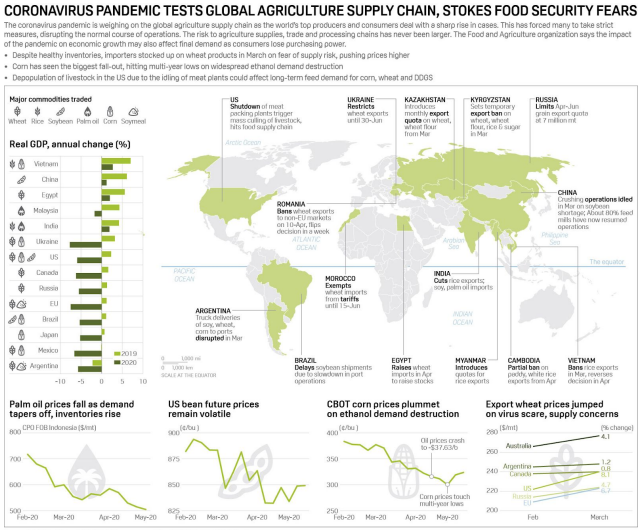
Food and other agricultural products are part of a global supply chain.

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.



Disruptions to Agricultural Supply Chains

UNIT 5 TOPIC 5.9 (THE GLOBAL SYSTEM OF AGRICULTURE)

Insights

- "The coronavirus hit at a time of steady harvests and food reserves, but sudden processing breakdowns threw the global food supply system into disarray. Thousands of tons of Montana potatoes went to waste, as did millions of eggs normally exported from poor countries. (...) The Covid lockdown also forced countries to invoke "food nationalism," with Russia banning the export of wheat, Vietnam of rice, and Serbia of vegetables and food oils. Would we all be better off growing more of our own food, or living in places that do? " *(Move, 308)*

Key questions

- How did the Covid-19 pandemic disrupt global food supply chains?
- What other challenges might agriculture supply chains face in the future? How can we resolve them?

ENDURING UNDERSTANDING

IMP-5

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

LEARNING OBJECTIVE

IMP-5.A

Explain how agricultural practices have environmental and societal consequences.

ESSENTIAL KNOWLEDGE

IMP-5.A.1

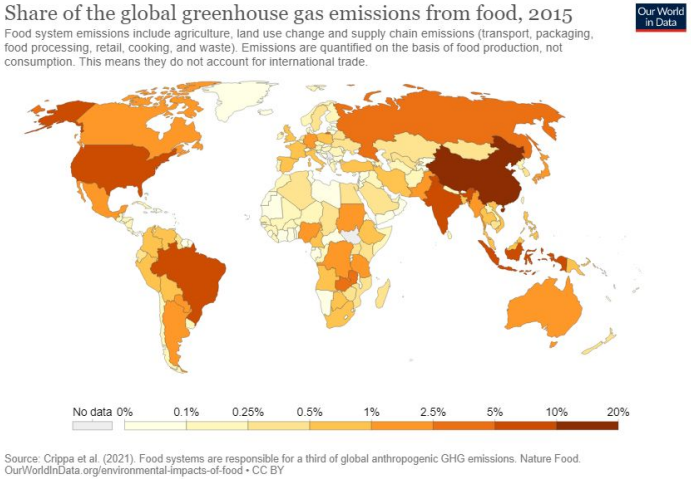
Environmental effects of agricultural land use include pollution, land cover change, desertification, soil salinization, and conservation efforts.

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.



UNIT 5 TOPIC 5.10 (CONSEQUENCES OF AGRICULTURAL PRACTICES)

Key example

- "Central Asia is recovering from decades of disastrous Soviet mandated cotton production that caused the near total disappearance of the Aral Sea. Kazakhstan is planting hundreds of millions of drought resistant seeds in the Aral area to restore its once vibrant agriculture." *(Move, 199)*

Key quotes

- "Today's largest food producers face a potential crisis as industrial farming has disrupted the natural symbiosis between seeds and soil, and water shortages deplete the ground's nutrients. Instead, we should expand regenerative agriculture techniques such as crop rotation, and nitrogen fixing bacteria instead of chemical fertilizers." *(Move, 309)*
- "We must modify the narrative that we have evolved from agriculture to towns to cities—with the former serving the latter without regard to environmental cost. Instead, we should rethink how and where we produce food and energy, how and where we consume it, and the distance between the two." *(Move, 309)*

UNIT 5 TOPIC 5.11 (CHALLENGES OF CONTEMPORARY AGRICULTURE)

ENDURING UNDERSTANDING

IMP-5

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

LEARNING OBJECTIVE

IMP-5.B

Explain challenges and debates related to the changing nature of contemporary agriculture and food-production practices.

ESSENTIAL KNOWLEDGE

IMP-5.B.1

Agricultural innovations such as biotechnology, genetically modified organisms, and aquaculture have been 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.

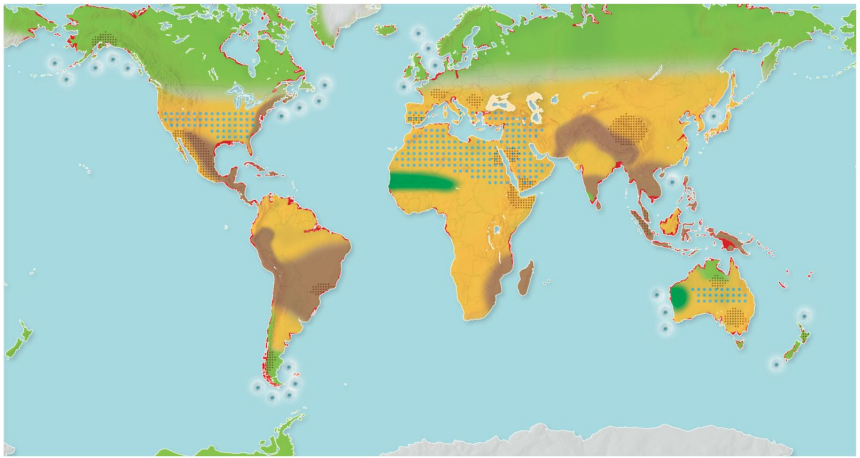
IMP-5.B.3

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.4

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

Food Growing Zones of the Future (Move, 210)



Insights

- Climate change will lead to the re-emergence of small communes that will strive to live off-grid, harness local water supplies and agriculture to reduce dependence on the unruly world beyond their horizon. Such communities will emerge in underpopulated northern regions, such as the Arctic. *(Move, 212)*
- Development of hydroponic indoor production can be a solution for drought and regions with unfavorable climate conditions. *(Move, 309)*
- Developing desalination plants will be crucial to provide drinking water and water for agriculture. *(Move, 312)*

UNIT 5 TOPIC 5.12 (WOMEN IN AGRICULTURE)

ENDURING UNDERSTANDING

IMP-5

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

LEARNING OBJECTIVE

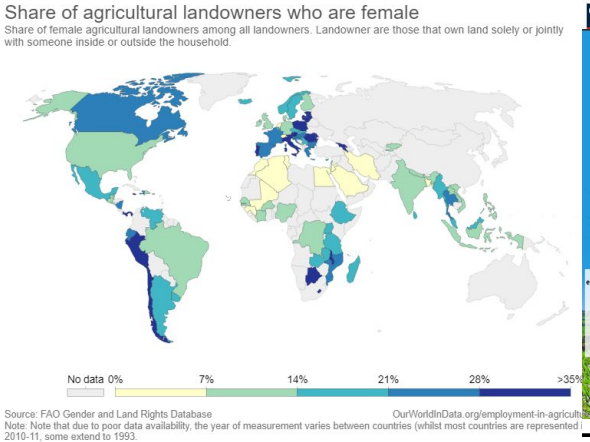
IMP-5.C

Explain geographic variations in female roles in food production and consumption.

ESSENTIAL KNOWLEDGE

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.



Insights

- The percentage of female landowners and women employed in agriculture is vastly different around the world
- The global average of female landowners is 12.8% (UNCTAD), with some countries in Europe, Canada, Botswana and Chile having above 20% female landowners, and countries in the MENA region (where data is available) having 0-7% female landowners.
- Around 40% of the global labor force in agriculture is female (FAO), ranging from over 50-70% in Sub-Saharan Africa, to below 2% in Canada, the United States and Australia.

Key questions

- Discuss the difference between the two maps. What do you think are the reasons between the different shares of female landowners and female agricultural workers?

UNIT 6 | 12–17% AP EXAM WEIGHTING | ~19–20 CLASS PERIODS

Cities and Urban Land-Use Patterns and Processes

Developing Understanding

BIG IDEA 1
Patterns and Spatial Organization PSO
- How do physical geography and resources impact the presence and growth of cities?

BIG IDEA 2
Impacts and Interactions IMP
- How are the attitudes, values, and balance of power of a population reflected in the built landscape?

BIG IDEA 3
Spatial Patterns and Societal Change SPS
- How are urban areas affected by unique economic, political, cultural, and environmental challenges?

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.

Insights

- "Most of the world's population already lives in cities, and approximately 150,000 people per day—or the equivalent of one Los Angeles per month—are moving in, especially in developing countries where at least two billion more people are expected to shift to cities by 2030." (Connectography, p. 35)
- "We are moving into an era where cities will matter more than states and supply chains will be a more important source of power than militaries." (Connectography, p. 25)
- "So much of the urban world is already stratified...Smart cities won't truly be smart until we get smarter." *(Move, p. 329)*

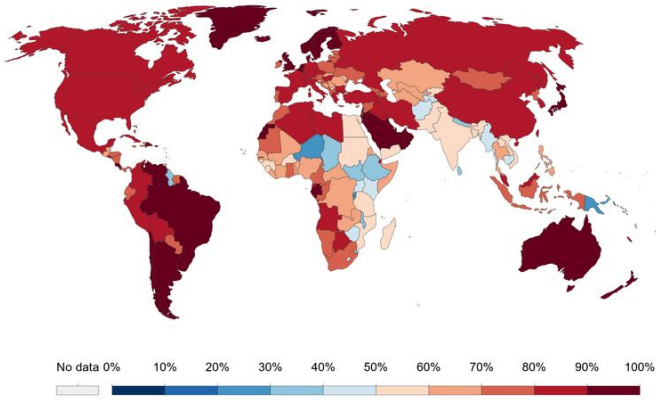
Key questions

- How do rural land-use patterns and processes compare with urban ones?
- What kinds of inequalities exist within cities? Between the urban and the rural? How can these inequalities be mitigated?
- Why is important to produce data-driven cityscapes and capture the scales of cities?

UNIT 6 TOPIC 6.1 (THE ORIGIN AND INFLUENCES OF URBANIZATION)

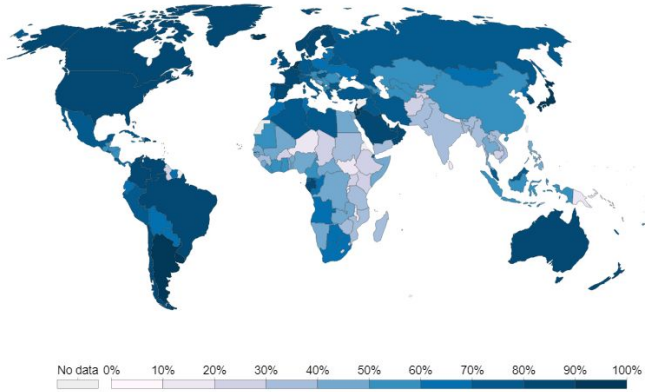
Share of the population living in urban areas (projected to 2050), 2050

Share of the total population living in urban areas, with UN Urbanization projections to 2050. Urban areas are defined based on national definitions which can vary by country.



Share of the total population living in urban areas, 2017

Proportion of the total population who live in urban areas.



ENDURING UNDERSTANDING

PSO-6

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

LEARNING OBJECTIVE

PSO-6.A

Explain the processes that initiate and drive urbanization and suburbanization.

ESSENTIAL KNOWLEDGE

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.

Insights

- Most migration is domestic movement from rural to urban: the world's urban population grew from 1 billion in 1960 to over 5 billion by 2020 *(Move, 18)*
- China has more internal migrants than all the migrants in the rest of the world (*Move, 18)*
- The world's urban population is expected to expand by another 2 billion by 2030

Key questions

- Discuss the difference between the two maps. What do you think are the reasons between the different shares of female landowners and female agricultural workers?

ENDURING UNDERSTANDING

PSO-6

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

LEARNING OBJECTIVE

PSO-6.A

Explain the processes that initiate and drive urbanization and suburbanization.

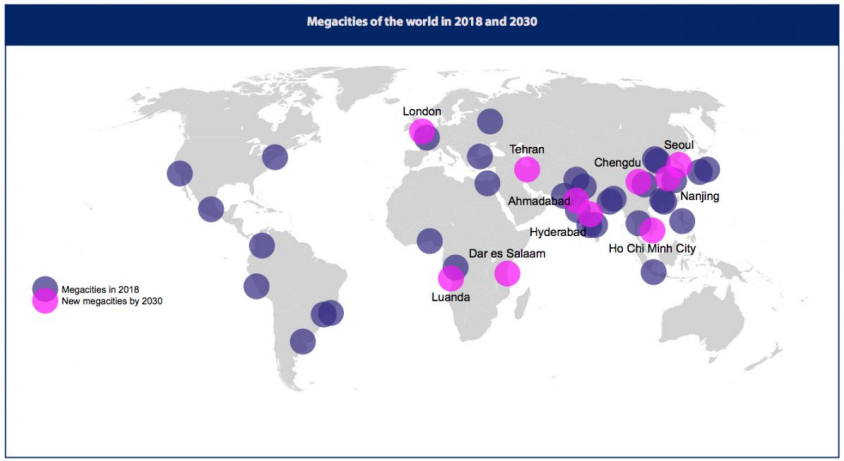
ESSENTIAL KNOWLEDGE

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.



Source: United Nations

Insights

- "Rising city costs, the Covid lockdown, and the explosion in telecommuting are also likely to bring about a substantial suburban revival." *(Move, 138)*
- "This shift from cities to suburbs can have large consequences for the American real estate market and on tax spending on local communities and schools." *(Move, 139)*

Key questions

- How might the megacities of the future look differently due to increasing suburbanization, sprawl and decentralization?
- What are some of the new challenges facing megacities?
- What explains the United Nations projection that there will be no new megacities in the Western hemisphere in 2030?

ENDURING UNDERSTANDING

PSO-6

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

LEARNING OBJECTIVE

PSO-6.B

Explain how cities embody processes of globalization.

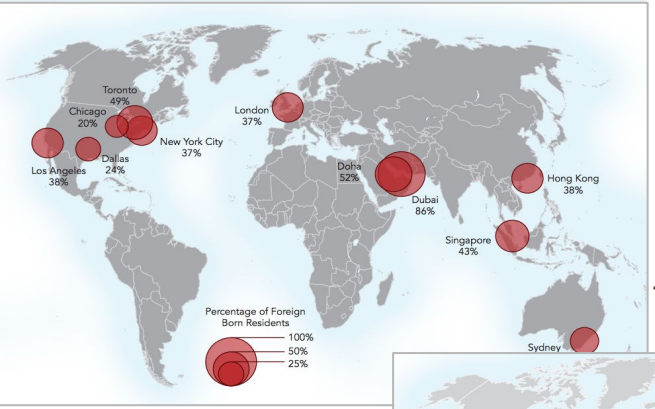
ESSENTIAL KNOWLEDGE

PSO-6.B.1

World cities function at the top of the world's urban hierarchy and drive globalization.

PSO-6.B.2

Cities are connected globally by networks and linkages and mediate global processes.



< Rise of "diplomacity"

Demographic and economic weight gives cities greater policy-making leverage, allows them to maneuver for greater autonomy, and enables their direct diplomacy. >

UNIT 6 TOPIC 6.3 (CITIES AND GLOBALIZATION)

Insights

- Diplomacy between cities is far older than nation states and will continue to be important for civilization in the future. "The future could be defined by a progressive new peace among small states and cities: a *Pax Urbanica*." (*Connectography*, 303)
- Major cities are often quite different from the rest of the country they are in, for example multicultural London and Berlin versus more homogenous England and Germany. (*Connectography*, 166)
- The rise of "civicism" (urban pride) instead of nationalism (*Connectography*, 112)
- Cities as melting pots of cultures and identities; multicultural and cosmopolitan. (*Connectography*, 113)

Key questions

- What other markers of globalization can you observe in cities?
- How is the relationship between cities and nation-states changing in the face of globalization?

ENDURING UNDERSTANDING

PSO-6

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

LEARNING OBJECTIVE

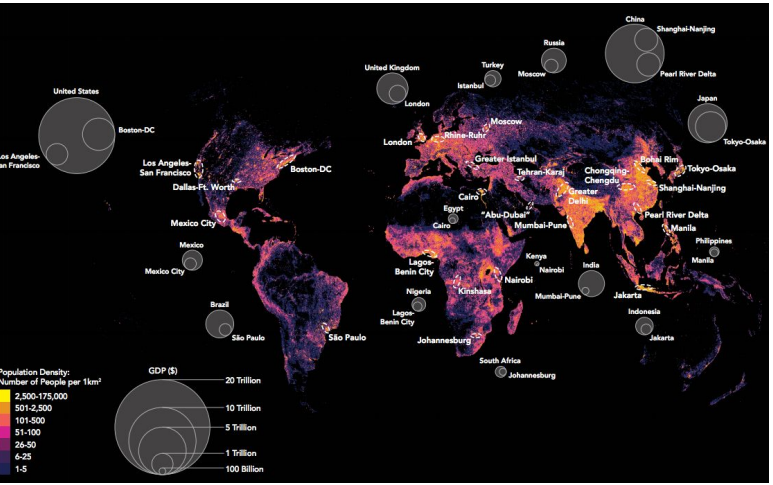
PSO-6.C

Identify the different urban concepts such as hierarchy, interdependence, relative size, and spacing that are useful for explaining the distribution, size, and interaction of cities.

ESSENTIAL KNOWLEDGE

PSO-6.C.1

Principles that are useful for explaining the distribution and size of cities include rank-size rule, the primate city, gravity, and Christaller's central place theory.



Urban archipelagos: Megacities and human geography

UNIT 6 TOPIC 6.3 (CITIES AND GLOBALIZATION)

Key quotes

- "As in most industrialized countries, two-thirds of the American population lives in cities, which represent just 3 percent of the land area." *(Move, p. 130)*
- "While human settlement along fertile river plains and oceanic coasts is an ancient pattern, the demographic concentration, economic weight, and political power of today's coastal megacities makes them—more than most states —the key units of human organization." *(Connectography, p. 19)*

Key questions

- Which principle do you think is most useful in explaining the distribution and size of cities? What might these principles overlook?
- Which cities can you identify that have a greater gravity than many nations?

UNIT 6 TOPIC 6.5 (THE INTERNAL STRUCTURE OF CITIES)

ENDURING UNDERSTANDING

PSO-6

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

LEARNING OBJECTIVE

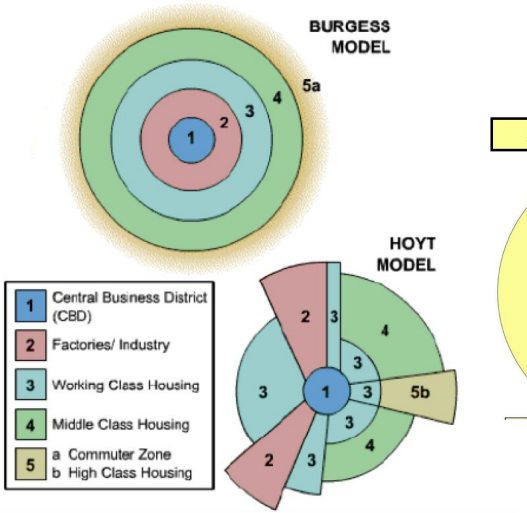
PSO-6.D

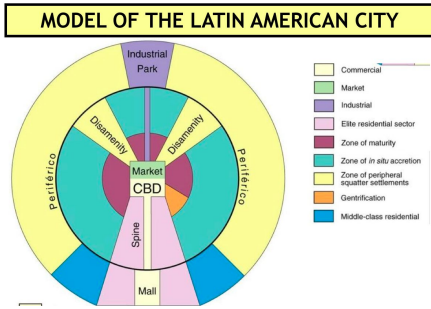
Explain the internal structure of cities using various models and theories.

ESSENTIAL KNOWLEDGE

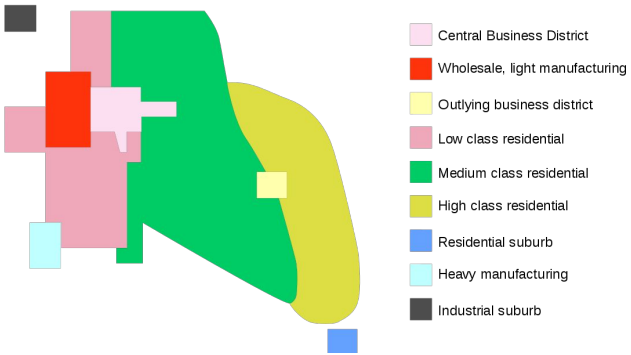
PSO-6.D.1

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.





Harris and Ullman's Multiple Nuclei Model



Key questions

- What conditions determine the internal structure of cities? Can the internal structure change over time?
- Can you think of examples of cities that can be explained by each model?
- Which city model do you think is the most efficient? How should cities of the future be structured?

ENDURING UNDERSTANDING

IMP-6

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

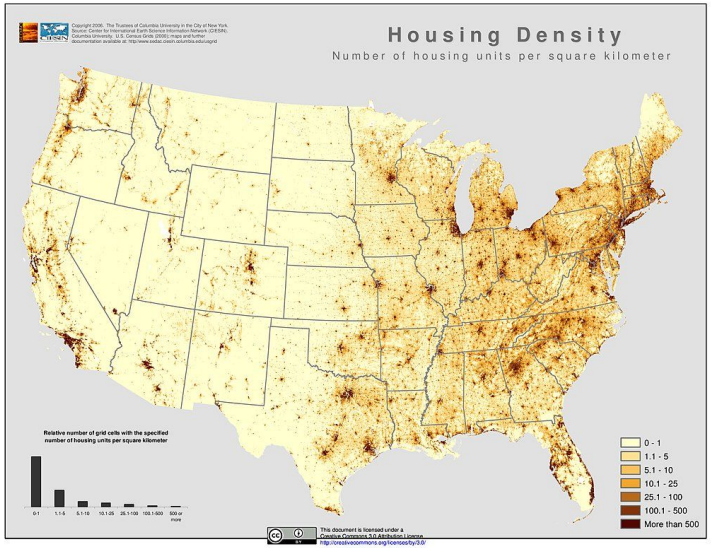
IMP-6.A

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

ESSENTIAL KNOWLEDGE

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.



UNIT 6 TOPIC 6.6 (DENSITY AND LAND USE)

Insights

- Housing density is related to population density and the density of business and investments *(Move, 130-137)*
- High housing density has become a vulnerability in the Covid-19 pandemic, encouraging many people to relocate to exurban areas.
- Many cities have excess stocks of public land that have not been planned or sold for development, creating constraints on the supply available for residential or commercial purposes.

Key questions

- What are the main characteristics of low-, medium-, and high-density housing?
- What conditions determine the density of housing in a city or area?
- How does housing density affect the city's development and population?

ENDURING UNDERSTANDING

IMP-6

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

IMP-6.B

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

ESSENTIAL KNOWLEDGE

IMP-6.B.1

The location and quality of a city's infrastructure directly affects its spatial patterns of economic and social development.

Source: IoT Now

UNIT 6 TOPIC 6.7 (INFRASTRUCTURE)

Insights

- Key insights
- Ease of mobility is essential to the city's prosperity and its inhabitants' wellbeing. *(Move, 126)*
- Cities cannot change their geography, but they can invest in adaptation measures such as water desalination, urban farming, or greater air-conditioning that enable their development despite unfavorable climates. *(Move, 313)*
- Young people are attracted to cities with affordable housing, cheap transportation, green spaces, liberal lifestyle and child-friendly spaces. *(Move, 322)*

Key questions

- What are the main elements of city infrastructure?
- How does city infrastructure affect the economic and social development of the city?
- How can the adoption of smart technologies improve city infrastructure and the quality of life for its residents?
- What characteristics would you find most appealing in a "smart city"?

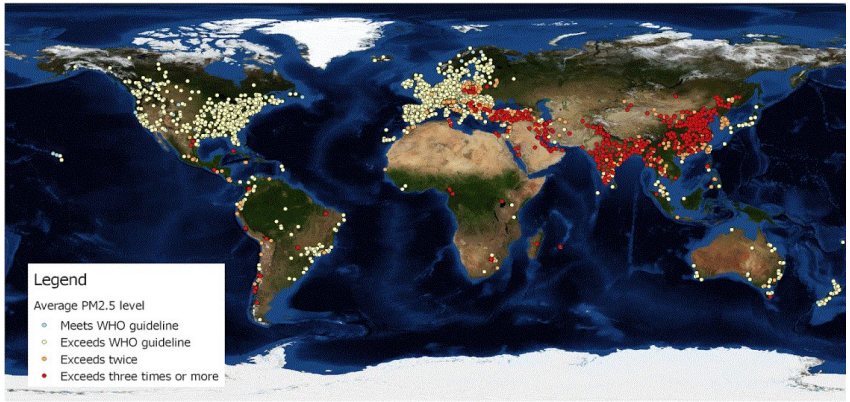
ENDURING UNDERSTANDING

IMP-6

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	ESSENTIAL KNOWLEDGE
IMP-6.C 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.
IMP-6.D 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.

Air Pollution in Cities *Source: Greenpeace, 2018*



UNIT 6 TOPIC 6.8 (URBAN SUSTAINABILITY)

Insights

- Cities can become more sustainable by installing long distance water canals or pipes, nuclear powered desalination plants, and wastewater treatment facilities *(Move, 222)*
- One crucial challenge is to overcome the “heat island effect” by which transport congestion traps heat and raises temperatures. *(Move, 318)*
- Natural canopies of tree covered walkways and spacious parks for preserving urban biodiversity are among the innovations making cities more sustainable. *(Move, 318)*
- Between solar and hydrogen power, a city of any size should be able to power itself. *(Move, 311)*

Key questions

- Think of as many ways as you can in which urban design can become more sustainable.
- How can urban design initiatives be more inclusive for all of the city’s residents?

UNIT 6 TOPIC 6.9 (URBAN DATA)

ENDURING UNDERSTANDING

IMP-6

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

IMP-6.E

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

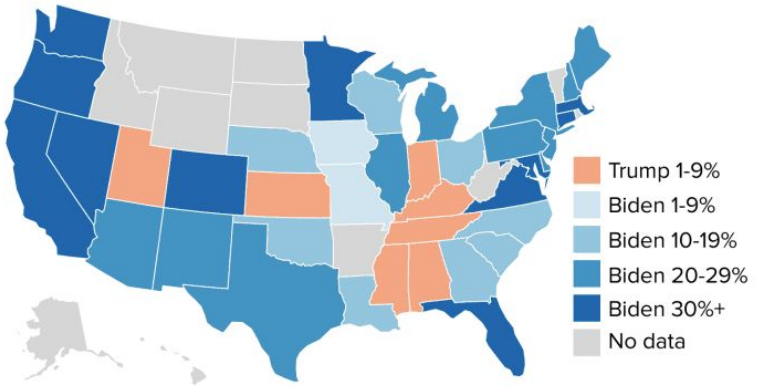
ESSENTIAL KNOWLEDGE

IMP-6.E.1

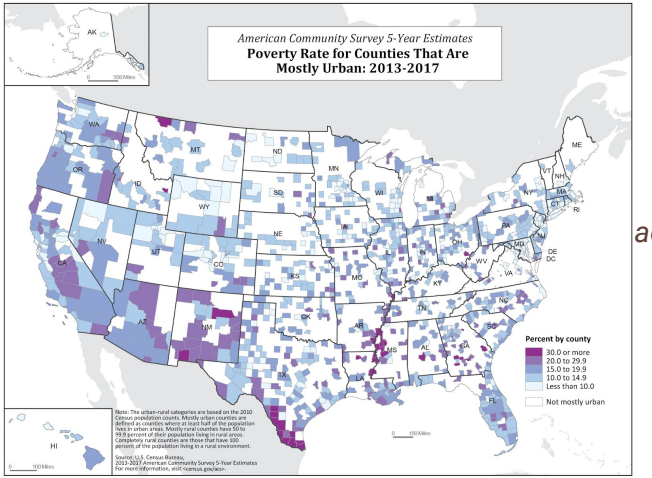
Quantitative data from census and survey data provide information about changes in population composition and size in urban areas.

IMP-6.E.2

Qualitative data from field studies and narratives provide information about individual attitudes toward urban change.



U.S. youth political leanings by geography in the 2020 elections.



Differences in income growth across U.S. counties.

Key questions

- What conditions determine the internal structure of cities? Can the internal structure change over time?
- Can you think of examples of cities that can be explained by each model?
- Which city model do you think is the most efficient? How should cities of the future be structured?

UNIT 6 TOPIC 6.10 (CHALLENGES OF URBAN CHANGES)

ENDURING UNDERSTANDING

SPS-6

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

LEARNING OBJECTIVE

SPS-6.A

Explain causes and effects of geographic change within urban areas.

ESSENTIAL KNOWLEDGE

SPS-6.A.1

As urban populations move within a city, economic and social challenges result, including: issues related to housing and housing discrimination such as redlining, blockbusting, and affordability; access to services; rising crime; environmental injustice; and the growth of disamenity zones or zones of abandonment.

SPS-6.A.2

Squatter settlements and conflicts over land tenure within large cities have increased.

SPS-6.A.3

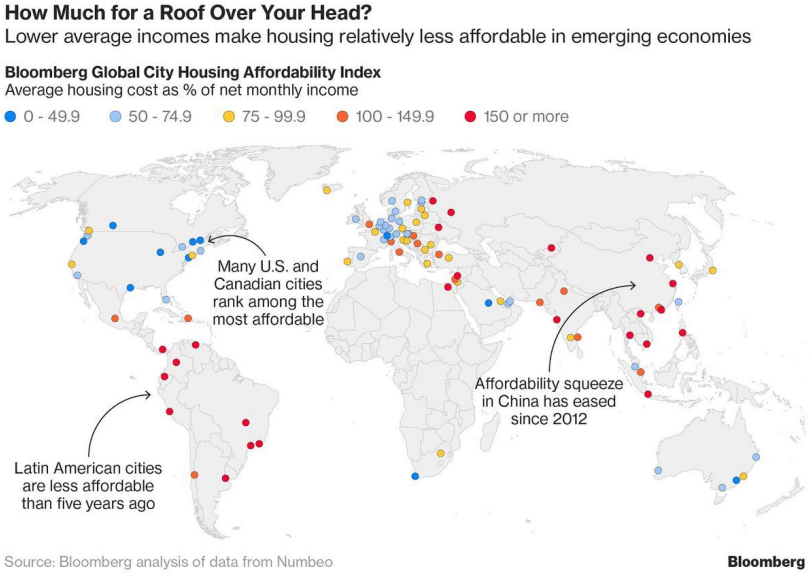
Responses to economic and social challenges in urban areas can include inclusionary zoning and local food movements.

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.



Insights

- Violence, resource stress, marginalization, and substandard housing force cities to innovate while at the same time driving many residents to flee. *(Move, 38-9)*
- Housing issues can be addressed by 3D printed housing or recycling shipping containers. *(Move, 38, 125)*
- Ethnically mixed public housing as in in Singapore can be an important antidote to racial and ethnic segregation. *(Move, 108)*

Key questions

- What are the main challenges caused by migration within urban areas and what can be done to mitigate them?

UNIT 6 TOPIC 6.11 (CHALLENGES OF URBAN SUSTAINABILITY)

ENDURING UNDERSTANDING

SPS-6

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

LEARNING OBJECTIVE

SPS-6.B

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

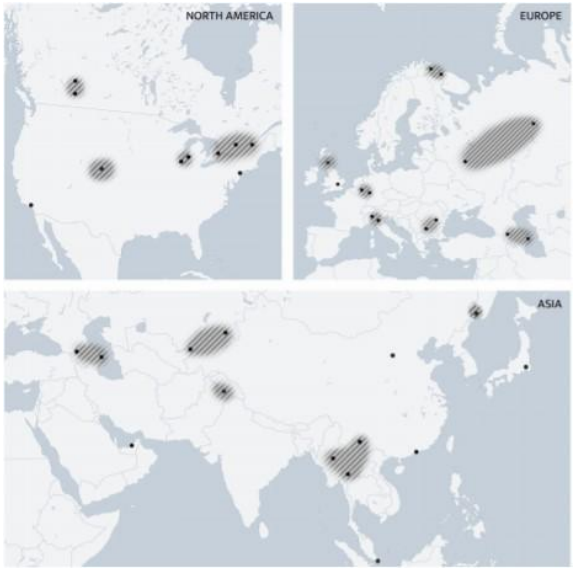
ESSENTIAL KNOWLEDGE

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.



Cities and Future Climate Oases

Insights

- We might see de-urbanization as a response to unsustainable urban environments, especially since it is now possible to have self-sufficient communities that remain connected. *(Move, 222)*
- Today's technologies make it possible to have "pop-up cities" and even movable cities in locations that are only seasonally viable. *(Move, 219)*

Key quotes

- Today's most populous, wealthy, and stable urban clusters include London, New York, Tokyo, and Shanghai. Which geographies could become ever larger population clusters in the coming decades? These new zones and corridors are among those likely to emerge as population shifts accelerate." *(Move, 216)*

Key questions

- What are the main challenges caused by migration within urban areas and what can be done to mitigate them?

UNIT 7 | 12–17% AP EXAM WEIGHTING | ~19–20 CLASS PERIODS

Industrial and Economic Development Patterns and Processes

Developing Understanding

BIG IDEA 1
Patterns and Spatial Organization PSO
- Why does economic and social development happen at different times and rates in different places?

BIG IDEA 2
Impacts and Interactions IMP
- How might environmental problems stemming from industrialization be remedied through sustainable development strategies?

BIG IDEA 3
Spatial Patterns and Societal Change SPS
- 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.

Insights

- "Development spreads along connective corridors." (Connectography, p. 74)
- "Supply chains were once thought of as spurring a race to the bottom; now it is clear they are how countries race to the top. Even China and India needed to open to foreign investment to attract supply chains, stimulate reforms, and generate the capital necessary to spread development." (Connectography, p. 204)
- "The World Bank argues that infrastructure is the 'missing link' in achieving the Millennium Development Goals related to poverty, health, education, and other objectives, and infrastructure has been formally included in the latest Sustainable Development Goals ratified in 2015." (Connectography, p. 27)

Key questions

- How is a place's industrial and economic development related to its geography?
- What are some ways to map and visualize development patterns across the world?
- How can we achieve more sustainable development processes in the future?

ENDURING UNDERSTANDING

SPS-7

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

LEARNING OBJECTIVE

SPS-7.A

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

ESSENTIAL KNOWLEDGE

SPS-7.A.1

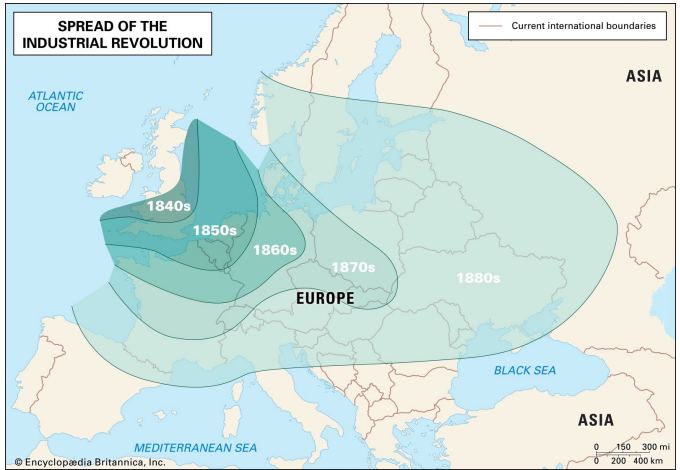
Industrialization began as a result of new technologies and was facilitated by the availability of natural resources.

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.



UNIT 7 TOPIC 7.1 (THE INDUSTRIAL REVOLUTION)

Insights

- The Industrial Revolution created huge demand for labor and led to mass migrations that were enabled by steamships and railways. *(Move, 21)*
- Fossil fuels replaced human and animal muscle as the primary source of power, and the world population grew to over one billion. *(Move, 47)*
- The Fourth Industrial Revolution might exacerbate inequality in labor markets (Erik Brynjolfsson and Andrew McAfee) but it might also lead to an increase in “safe and rewarding jobs” *(Klaus Schwab)*.

Key questions

- How does the current Fourth Industrial Revolution compare to the reach and effects of the First Industrial Revolution? What are the differences?

ENDURING UNDERSTANDING

SPS-7

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

LEARNING OBJECTIVE

SPS-7.B

Explain the spatial patterns of industrial production and development.

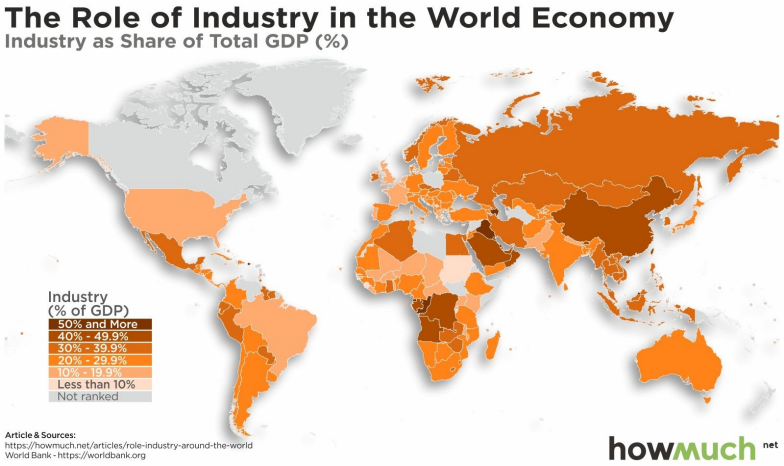
ESSENTIAL KNOWLEDGE

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.



UNIT 7 TOPIC 7.2 (ECONOMIC SECTORS AND PATTERNS)

Insights

- Cross-border “circuits” of labor are connected through supply chains in a globalized world, where people and places “belong as much to the global supply chain as to their nation.” (Connectography, 33)
- “The biggest threat to current patterns of global trade comes from the combination of 3-D printing (which allows more products to be manufactured locally at “home”) and the sharing economy (by which fewer goods are purchased but existing goods are consumed as services).” (Connectography, 113)

Key questions

- What are the factors that shape the spatial patterns of industrial production and development?
- What are the key drivers that change the industrial composition of an economy?

ENDURING UNDERSTANDING

SPS-7

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

LEARNING OBJECTIVE

SPS-7.C

Describe social and economic measures of development.

ESSENTIAL KNOWLEDGE

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; income distribution; fertility rates; infant mortality rates; access to health care; use of fossil fuels and renewable energy; and literacy rates.

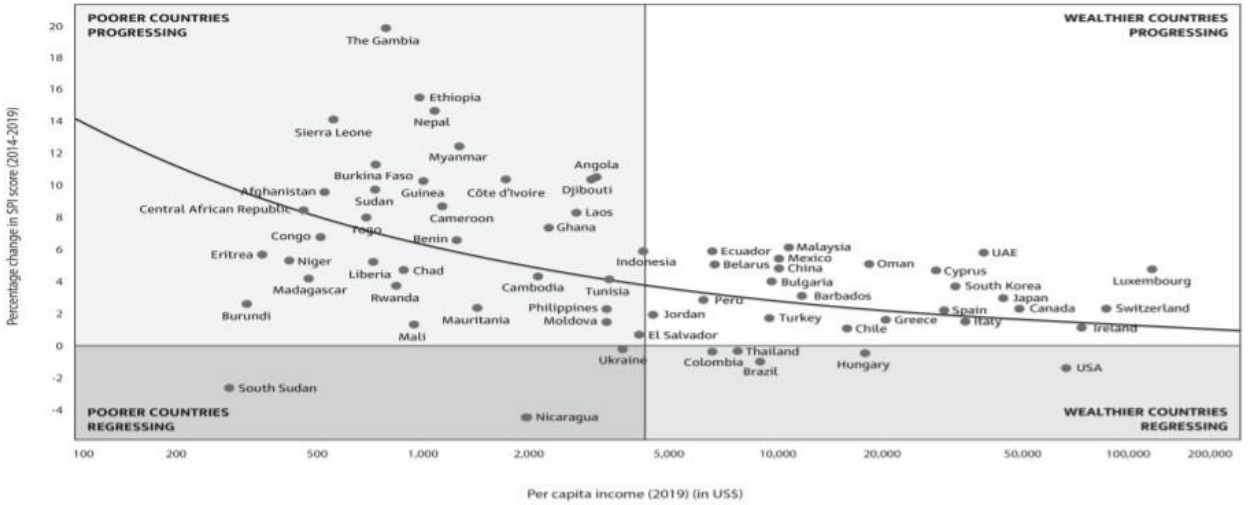
SPS-7.C.2

Measures of gender inequality, such as the Gender Inequality Index (GII), include reproductive health, indices of empowerment, and labor-market participation.

SPS-7.C.3

The Human Development Index (HDI) is a composite measure used to show spatial variation among states in levels of development.

Social Progress Index (SPI)



Insights

- The Social Progress Index (SPI) measures countries by their performance in meeting basic needs (such as nutrition, water, shelter, and safety), providing the foundations for wellbeing (education, healthcare, access to information, and clean environment), and enabling opportunity (political rights, personal freedoms, and inclusive economies). *(Move, 306)*
- Many countries ranking high on social progress score low on the Sustainable Development Index (SDI) due to high carbon consumption. Highest scoring countries are small countries with prudent resource management. *(Move, 307)*

Key questions

- What other measures of development can you imagine?
- Are there elements of development that have not been captured by any of the indexes you are familiar with?

ENDURING UNDERSTANDING

SPS-7

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

LEARNING OBJECTIVE

SPS-7.D

Explain how and to what extent changes in economic development have contributed to gender parity.

ESSENTIAL KNOWLEDGE

SPS-7.D.1

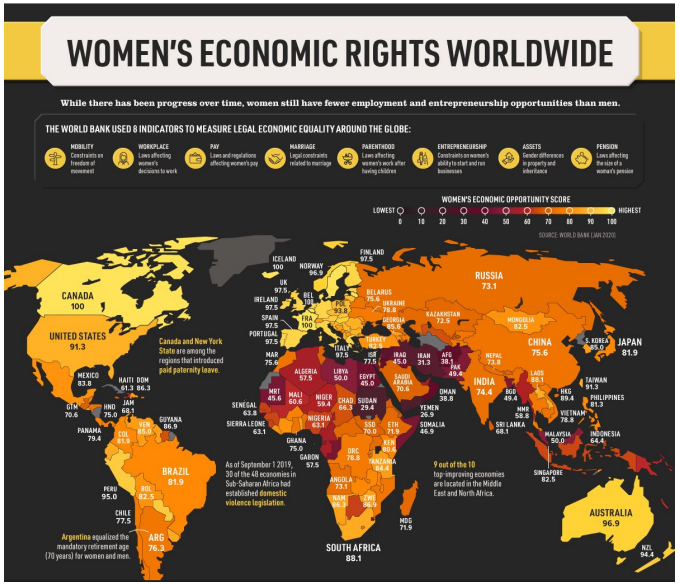
The roles of women change as countries develop economically.

SPS-7.D.2

Although there are more women in the workforce, they do not have equity in wages or employment opportunities.

SPS-7.D.3

Microloans have provided opportunities for women to create small local businesses, which have improved standards of living.



Insights

- Working Gen-X women in Western countries often look after both their children and their aging parents and in-laws, alongside paid work and household chores. *(Move, 58)*
- The "motherhood penalty" has led to women dropping out of the workforce or relying on migrant labor for household work. *(Move, 59)*
- While better educated women might be eager to migrate, most of the world's forced migrants are women from Asian and Arab countries. *(Move, 65)*
- In numerous countries, the number of women enrolled in higher education outnumbers that of men. *(Move, 66)*

Key questions

- Does economic development alone bring gender parity?
- What are the most important policies that can promote more equitable gender rights?

ENDURING UNDERSTANDING

SPS-7

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

LEARNING OBJECTIVE

SPS-7.E

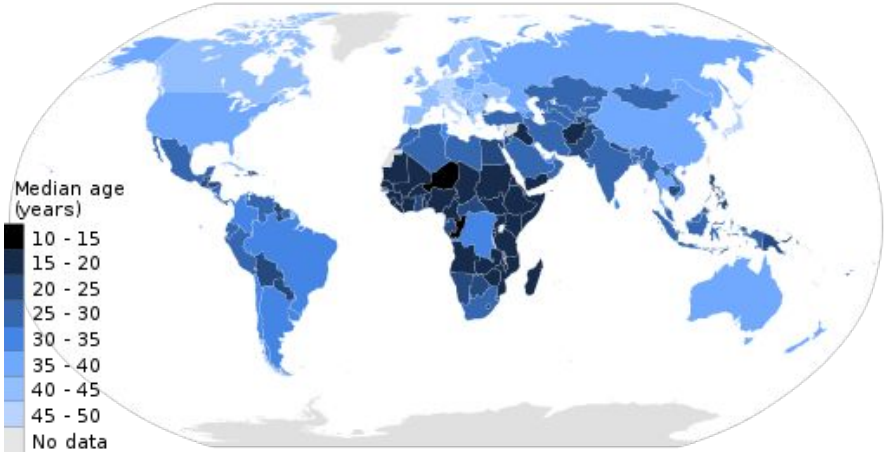
Explain different theories of economic and social development.

ESSENTIAL KNOWLEDGE

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.

Median Age by Country (2017)



Source: Wikipedia

Insights

- "Demographics: Lopsided imbalances between an aging North and a youthful South able to provide the labor force the north needs." *(Move, p. 27)*
- "More migration could balance these [imbalances] out, preventing the world from collectively becoming poorer and more unequal at the same time." *(Move, p. 347)*

Key questions

- Can any one theory be sufficient to explain social and economic development across diverse geographies?
- How do different theories interact and build upon each other?
- What crucial elements of development do you feel most major theories are missing?

ENDURING UNDERSTANDING

PSO-7

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

LEARNING OBJECTIVE

PSO-7.A

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

ESSENTIAL KNOWLEDGE

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.

TOPIC 7.6 (TRADE AND THE WORLD ECONOMY)

Key quotes

- "African governments have all agreed to a continent-wide free trade and mobility area by 2025." *(Move, 234)*
- "Because only one-quarter of world trade is between countries that share a border, connectivity is the sine qua non for growth both within countries and across them. Connectivity itself—alongside demographics, capital markets, labor productivity, and technology—is thus a major source of momentum in the global economy." *(Connectography. 24)*

Key questions

- What are some of the positive and negative consequences of the growing interdependence of the world economy?
- Will the world economy continue to become more integrated? Why or why not?

ENDURING UNDERSTANDING

PSO-7

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

LEARNING OBJECTIVE

PSO-7.A

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

ESSENTIAL KNOWLEDGE

PSO-7.A.5

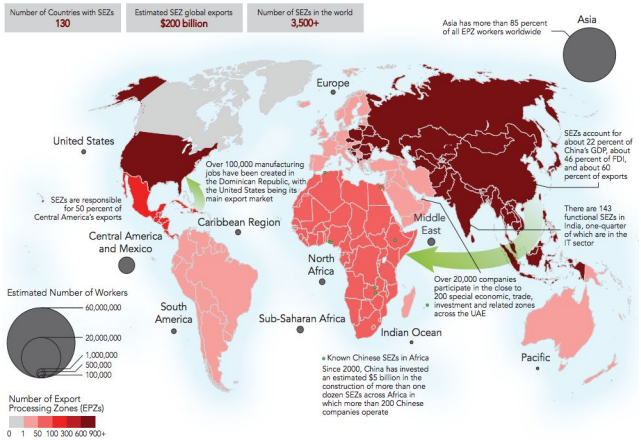
Outsourcing and economic restructuring have led to a decline in jobs in core regions and an increase in jobs in newly industrialized countries.

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.



Special Economic Zones

Insights

- Industrial automation and outsourcing have led to significant decline in the number of manufacturing jobs in the West, while algorithms are making many skilled workers redundant as well. Both trends force many people to relocate. *(Move, 35)*

Key questions

- How do shifts in the locus of industrial production around the world affect the places that are either gaining or losing investment and jobs?

UNIT 7 TOPIC 7.8 (SUSTAINABLE DEVELOPMENT)

ENDURING UNDERSTANDING

IMP-7

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

LEARNING OBJECTIVE

IMP-7.A

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

ESSENTIAL KNOWLEDGE

IMP-7.A.1

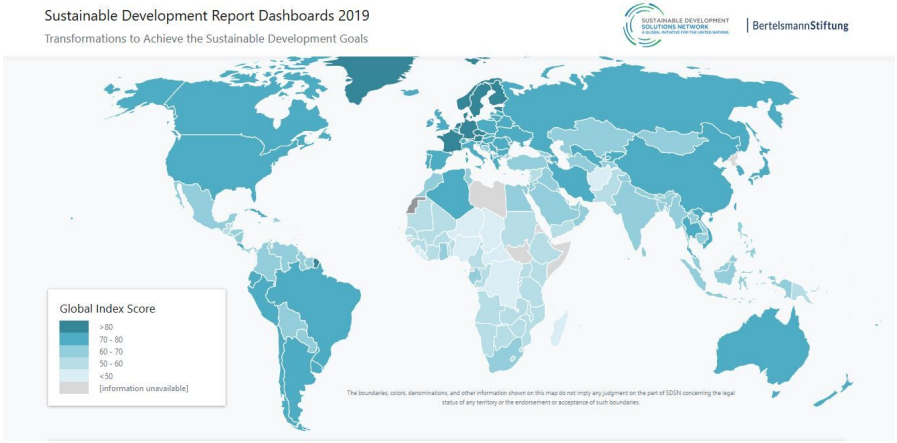
Sustainable development policies attempt to remedy problems stemming from natural-resource depletion, mass consumption, the effects of pollution, and the impact of climate change.

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 providing jobs for the local population.

IMP-7.A.3

The UN's Sustainable Development Goals help measure progress in development, such as small-scale finance and public transportation projects.



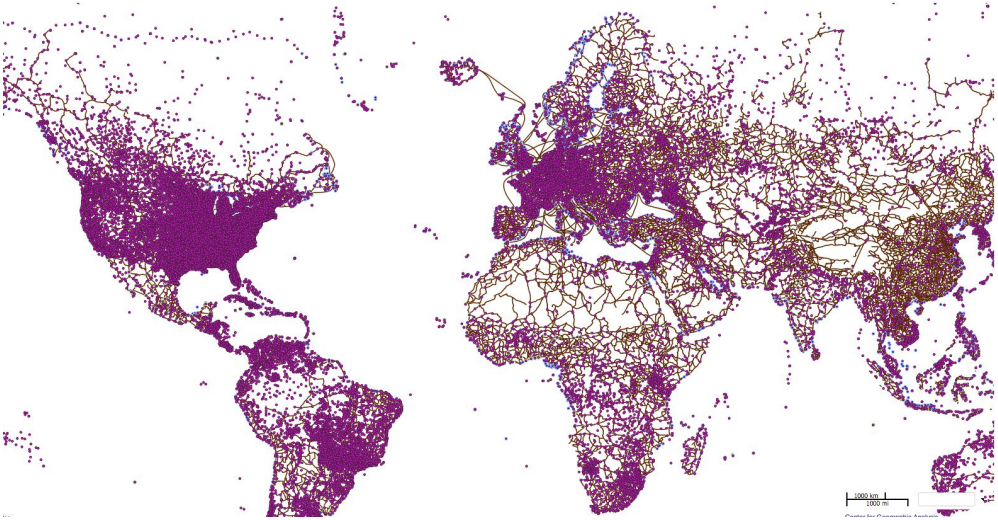
Insights

- Young people increasingly prefer sustainable travel experiences, which both contribute to tourism and the economy at the destination but don't destroy the planet *(Move, 97)*
- Sustainable Development Index (SDI) *(Move, 306)*

Key questions

- Young people increasingly prefer sustainable travel experiences, which both contribute to tourism and the economy at the destination but don't destroy the planet *(Move, 97)*
- Sustainable Development Index (SDI) *(Move, 306)*

The World's Airports, Ports and Major Roads
Source: Centre for Geographic Analysis, Harvard University



"Geography evolves, and human society must evolve with it."

(MOVE, 350)

END OF COURSE DISCUSSION

- To forecast which places will succeed or fail in the decades ahead requires taking a holistic look at political, economic, technological, social, and environmental factors, projecting how they intersect with each other, and building scenarios for how each geography may adapt to this unending complexity.

- Human geography allows us to investigate deep questions such as: What role will North America, Europe, Asia, Africa, South America, and Australia play in a complex planetary society amidst accelerating climate change? Which geographies will be most suitable for human habitation in the coming 20-30 years?

- "We can no longer take for granted a stable relationship between our geographic layers such as nature, politics, and economics. These are among the major forces that have determined our human geography for the past thousands of years—and in turn, our human geography has shaped them." *(Move, 12)*

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