

## **Concepts you must know...**

### ***Geography and Maps***

1. The Greeks were the first society to introduce geography as a subject. Eratosthenes is credited with being the first person to use the word geography, "geo" meaning Earth and "graphy" to write."
2. The five themes of geography allow geographers to make each place unique (location) and to tie them together (region).
3. The Roman Empire saw cartography become more of an art process than a scientific study. Islamic scholars took up the task of identifying features on the Earth's surface. Marco Polo reintroduced the excitement of discovery to Europe, which then sparked colonialism and trade development in all areas of the world.
4. Diffusion is the spread or movement of a principle or phenomenon. Relocation, expansion, contagious, stimulus, and hierarchical diffusion are means by which an idea or phenomenon spreads.
5. There are three types of regions: formal, functional, and perceptual or vernacular.
6. There are three main aspects of distribution: density, concentration, and patterns. All, are used to assist in determining spatial characteristics on the landscape.

### ***Population and Migration***

1. The Demographic Transition Model is a tool demographers use to categorize countries' population growth rates and economic structures. The model analyzes crude birth rates, crude death rates, and total population trends in a society at a given point of time. Once a country moves into the next stage of the model, it cannot go back to previous stages, unless afflicted by nuclear war or another horrific calamity.
2. British economist Thomas Malthus coined the term overpopulation in the late 1700s. Malthus suggested that the world's population was growing faster than the rate of food production, and as a result, mass starvation would occur. Malthus was correct in his assumption about world population increase but was incorrect in his assessment of agriculture's inability to produce sufficient food.
3. The world's population is growing exponentially. Most of the growth is occurring in less developed countries. More developed countries are either at or near zero population growth. Some Eastern European countries are actually losing some of their population.
4. Population pyramids show the age and sex demographics of a particular country, city, or neighborhood. Inverted pyramids indicate a large percentage of elderly persons in the community. A large base indicates a lot of children in the society and could indicate a less developed country.
5. There are three primary push and pull factors: economic, political, and environmental. Each of these reasons has caused millions of people to move.
6. Refugees voluntarily leave an area for fear of death or persecution. Forced migrants are forced by the government to move. Forced migrants can suffer the same fate as refugees if they do not obey the government mandate for them to relocate.

## ***Agriculture***

1. Much of the world's crop products are based on the climate of the regions where they are grown.
2. There are three agricultural revolutions that changed history. The First Agricultural Revolution was the transition from hunting and gathering to planting and sustaining. The Second Agricultural Revolution increased the productivity of farming through mechanization and access to market areas due to better transportation. The Third Agricultural Revolution involves the genetic engineering of products as well as the increased use of fertilizers for crops and antibiotics in animal products.
3. Von Thunen's Model focuses on transportation. The distance and the weight of crops as well as their distance to market affect which ones are grown.
4. There are two primary methods of farming in the world. Subsistence farming involves producing agricultural products for use by the farm family. Commercial farming involves the sale of agricultural products off the farm.
5. Many of the settlement patterns in the United States have been based on the agricultural possibilities of the areas.
6. Modern agriculture is becoming, more industrialized and more specialized than ever. The loss of the family farm is a direct result of the rise of feedlots and mega-farms used to produce enormous quantities of agricultural commodities.

## ***Land Use and Resources***

- 1) Fossil fuels are nonrenewable resources and eventually will run out, but today they are used to build infrastructure and provide energy to more developed countries.
- 2) Coal and oil are two of the most widely used fossil fuels in the world. The United States is one of the leading countries in the world in both coal consumption and production; coal provides the majority of electricity in the United States.
- 3) Oil is a vital world resource. The Middle East leads the world in oil reserves and, as a result, has gained great wealth from drilling for oil.
- 4) The six alternative energy sources are hydroelectric, solar, nuclear, wind, biomass, and geothermal. Each of these has a promising future, but current production levels would not meet the world's demand for power.
- 5) Four helpful land use decision-making models are economic, sustainability, environmental, and preservationist. These models are used in everything from farming to urban growth planning and shape much of the landscape that we see today.
- 6) The United States is the leading consumer of fossil fuels in the world today. China, with its growing economy and population, is quickly increasing its energy consumption levels.

## ***Industry and Economic Development***

1. Industry is based on transportation and labor costs. Weber's least cost theory suggests that a production point must be located within a "triangle," with raw materials coming from at least two sources. Weight-gaining industries must have their production point closer to the market. Weight-reducing industries must have their production point closer to the source of raw materials.

2. The five main means of industrial transportation are truck, train, plane, pipeline, and ship. Each has advantages and disadvantages for hauling raw materials or finished products to production points and markets around the globe.

3. Basic industries are city-forming industries, whereas non-basic industries are city-serving industries. Basic industries are the main business for which a city is known. Detroit/automobiles, Pittsburgh/steel, San Jose/computer chips are just three examples of basic industries in major urban areas in the United States.

4. The main factor in determining an area's development is the Human Development Index, which measures life expectancy, literacy education, and the overall standard of living for different countries around the world. It was developed by Pakistani economist Mahbub ul Haq in 1990 and has since been used by the United Nations as the primary indicator of countries' levels of development.

5. The core-periphery model describes regions as core, semi-periphery, and periphery areas. It also describes four areas, the industrial core, upward transition, downward transition, and resource frontier. The model can be used from a worldwide scale down to an urban scale to analyze city zones.

### ***Political Geography***

1. A nation is a group of people with common cultural characteristics, whereas a state is an area with defined boundaries that has sovereignty within its borders. A nation-state is a country whose political boundaries correspond with its cultural boundaries.

2. The Heartland Theory established by Halford MacKinder suggests that whoever owns the Heartland of Eastern Europe will control the world. The Rimland Theory developed by Nicholas Spykman suggests that sea power is more valuable and that alliances will keep the Heartland in check. The domino theory, a response to the spread of communism, suggested that when one country falls, others around it will experience the same political instability.

3. Colonialism has had a profound impact on the world today. The major colonial powers were Great Britain, Portugal, Spain, and France. Meinig's colonial empire themes describe how these empires were colonized. Great Britain and France used the settler empire, Portugal used the sea empire, and Spain used the land empire.

4. Ethnicity is determined by race, skin color, language, religion, and other factors. Race is different from ethnicity and is determined by perceived inheritable biological characteristics.

5. There are five shapes to countries: compact, elongated, fragmented, perforated, and prorupted. Each of these has advantages and disadvantages.

6. Supranational organizations, such as the European Union and the United Nations, have a strong influence on the world's political climate.

7. Boundary disputes arise for various reasons. Some arise from the demarcation of the boundary, while others arise from the allocation of resources along the border. Inappropriate boundary lines in Africa led to wars from the moment they were drawn, because European countries used geometric and physical features to establish boundaries in Africa instead of cultural features, such as language and religion.

### ***Cultural Geography***

1. Language is the means of mutually comprehensible communication between people. There are thousands of languages around the world, but many of them are dying out.

2. Folk culture is practiced by a relatively small number of people in a particular area. Popular culture is diffused rapidly around the world through mass communication.
3. The largest language family is the Indo-European family, of which there are many branches, including the Romance and the Germanic languages. The second-largest language family is the Sino-Tibetan family, which includes the most spoken language in the world—Mandarin Chinese.
4. There are five primary languages in the world today: Christianity, Islam, and Judaism (the Western religions) and Hinduism and Buddhism (the Eastern religions). Christianity is the largest religion in the world with just over 2 billion followers. Islam is the fastest-growing religion in the world.
5. Religions are defined as monotheistic or polytheistic (worshipping one god or more gods) and ethnic or universalizing (people must be born into or can be converted to the religion).
6. Dialects are form of a language that differs based on vocabulary, syntax, and speed.
7. There are architectural differences in religious structures around the world. Christians use churches, Jews use synagogues, Muslims use mosques, Hindus use temples, and Buddhists use pagodas.

### ***Urbanization***

1. All cities fit within Christaller's central place theory. Some cities have greater ranges and need bigger thresholds. Range is the maximum distance people are willing to travel to get a product or service. Threshold is the minimum number of people needed for a business to operate.
2. There are three basic models of urban structure in the United States. The concentric zone theory, developed by Burgess, describes expansion in concentric rings around the central business district. The sector model, developed by Hoyt, suggests that growth extends along transportation routes. The multiple nuclei model, developed by Ullman and Harris, suggests that growth is independent of the central business district.
3. Different continents have cities with different characteristics. European cities are older and more historic. Asian cities are usually built on ports for trade. Latin American cities possess a spine of high-quality housing extending from the central business district African cities have three separate central business districts, including a colonial central business district, contemporary central business district, and a market zone. Islamic cities are focused on the principles of the religion.
4. Cities have problems such as race relations, traffic, water delivery, pollution, and urban sprawl that can negatively affect their inhabitants unless handled appropriately by local government.
5. The three world cities are New York City, London, and Tokyo. Other cities are rated and ranked based on their economic, cultural, and political importance to the areas they serve.
6. The hierarchy of cities from smallest to largest is hamlet, village, town, city, metropolis, and megalopolis. The largest metropolis in the United States is New York City with over 18 million people in its metropolitan area.
7. Primate cities have at least twice the population of the next-largest city in the same country. London, Paris, and Buenos Aires are examples of primate cities.