

GEOGRAPHY

EACH PLACE ON EARTH has a unique set of local conditions and connections to other places. Some activities are appropriate in a given place and other activities are not. Events in one place influence events in other places. Geographic knowledge helps people to make decisions about “Where can I be safe, successful, and happy in my daily activities?” and “How can my community create and sustain a healthy environment?” Such knowledge is critically important to understanding what activities might be harmful to a place or what hazards might be encountered there. Geographic inquiry helps people understand and appreciate their own place in the world, and fosters curiosity about Earth’s wide diversity of environments and cultures.

Geographic reasoning rests on deep knowledge of Earth’s physical and human features, including the locations of places and regions, the distribution of landforms and water bodies, and historic changes in political boundaries, economic activities, and cultures.

Geographic reasoning requires using spatial and environmental perspectives, skills in asking and answering questions, and being able to apply geographic representations including maps, imagery, and geospatial technologies. A spatial perspective is about whereness. Where are people and things located? Why there? What are the consequences? An environmental perspective views people as living in interdependent relationships within diverse environments. Thinking geographically requires knowing that the world is a set of complex ecosystems interacting at multiple scales that structure the spatial patterns and processes that influence our daily lives. Geographic reasoning brings societies and nature under the lens of spatial analysis, and aids in personal and societal decision making and problem solving.

Geographic Representations: Spatial Views of the World

Creating maps and using geospatial technologies requires a process of answering geographic questions by gathering relevant information; organizing and analyzing the information; and using effective means to communicate the findings. Once a map or other representation is created, it prompts new questions concerning the locations, spaces, and patterns portrayed. Creating maps and other geographical representations is an essential and enduring part of

seeking new geographic knowledge that is personally and socially useful and that can be applied in making decisions and solving problems.

Indicators of Dimension 2—Geographic Representations—are detailed in the suggested K-12 Pathway for College, Career, and Civic Readiness in Table 16.

TABLE 16: Suggested K-12 Pathway for College, Career, and Civic Readiness Dimension 2, Geographic Representations

BY THE END OF GRADE 2	BY THE END OF GRADE 5	BY THE END OF GRADE 8	BY THE END OF GRADE 12
INDIVIDUALLY AND WITH OTHERS, STUDENTS...			
D2.Geo.1.K-2. Construct maps, graphs, and other representations of familiar places.	D2.Geo.1.3-5. Construct maps and other graphic representations of both familiar and unfamiliar places.	D2.Geo.1.6-8. Construct maps to represent and explain the spatial patterns of cultural and environmental characteristics.	D2.Geo.1.9-12. Use geospatial and related technologies to create maps to display and explain the spatial patterns of cultural and environmental characteristics.
D2.Geo.2.K-2. Use maps, graphs, photographs, and other representations to describe places and the relationships and interactions that shape them.	D2.Geo.2.3-5. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their environmental characteristics.	D2.Geo.2.6-8. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions, and changes in their environmental characteristics.	D2.Geo.2.9-12. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their political, cultural, and economic dynamics.
D2.Geo.3.K-2. Use maps, globes, and other simple geographic models to identify cultural and environmental characteristics of places.	D2.Geo.3.3-5. Use maps of different scales to describe the locations of cultural and environmental characteristics.	D2.Geo.3.6-8. Use paper based and electronic mapping and graphing techniques to represent and analyze spatial patterns of different environmental and cultural characteristics.	D2.Geo.3.9-12. Use geographic data to analyze variations in the spatial patterns of cultural and environmental characteristics at multiple scales.

Human-Environment Interaction: Place, Regions, and Culture

Human-environment interactions are essential aspects of human life in all societies and they occur at local-to-global scales. Human-environment interactions happen both in specific places and across broad regions. Culture influences the locations and the types of interactions that occur. Earth’s human systems and physical systems are in constant interaction and have reciprocal influences flowing among them. These

interactions result in a variety of spatial patterns that require careful observation, investigation, analysis, and explanation.

Indicators of Dimension 2—Human-Environment Interaction—are detailed in the suggested K-12 Pathway for College, Career, and Civic Readiness in Table 17.

TABLE 17: Suggested K-12 Pathway for College, Career, and Civic Readiness Dimension 2, Human-Environment Interaction

BY THE END OF GRADE 2	BY THE END OF GRADE 5	BY THE END OF GRADE 8	BY THE END OF GRADE 12
INDIVIDUALLY AND WITH OTHERS, STUDENTS...			
D2.Geo.4.K-2. Explain how weather, climate, and other environmental characteristics affect people’s lives in a place or region.	D2.Geo.4.3-5. Explain how culture influences the way people modify and adapt to their environments.	D2.Geo.4.6-8. Explain how cultural patterns and economic decisions influence environments and the daily lives of people in both nearby and distant places.	D2.Geo.4.9-12. Analyze relationships and interactions within and between human and physical systems to explain reciprocal influences that occur among them.
D2.Geo.5.K-2. Describe how human activities affect the cultural and environmental characteristics of places or regions.	D2.Geo.5.3-5. Explain how the cultural and environmental characteristics of places change over time.	D2.Geo.5.6-8. Analyze the combinations of cultural and environmental characteristics that make places both similar to and different from other places.	D2.Geo.5.9-12. Evaluate how political and economic decisions throughout time have influenced cultural and environmental characteristics of various places and regions.
D2.Geo.6.K-2. Identify some cultural and environmental characteristics of specific places.	D2.Geo.6.3-5. Describe how environmental and cultural characteristics influence population distribution in specific places or regions.	D2.Geo.6.6-8. Explain how the physical and human characteristics of places and regions are connected to human identities and cultures.	D2.Geo.6.9-12. Evaluate the impact of human settlement activities on the environmental and cultural characteristics of specific places and regions.

Human Population: Spatial Patterns and Movements

The size, composition, distribution, and movement of human populations are fundamental and active features on Earth’s surface. The expansion and redistribution of the human population affects patterns of settlement, environmental changes, and resource use. The spatial patterns and movements of population also relate to physical phenomena including climate variability, landforms, and locations of various natural hazards. Further, political, economic, and technological changes sometimes have dramatic

effects on population size, composition, and distribution. Past, present, and future conditions on Earth’s surface cannot be fully understood without asking and answering questions about the spatial patterns of human population.

Indicators of Dimension 2—Human Population: Spatial Patterns and Movements—are detailed in the suggested K-12 Pathway for College, Career, and Civic Readiness in Table 18.

TABLE 18: Suggested K-12 Pathway for College, Career, and Civic Readiness Dimension 2, Human Population: Spatial Patterns and Movements

BY THE END OF GRADE 2	BY THE END OF GRADE 5	BY THE END OF GRADE 8	BY THE END OF GRADE 12
INDIVIDUALLY AND WITH OTHERS, STUDENTS...			
D2.Geo.7.K-2. Explain why and how people, goods, and ideas move from place to place.	D2.Geo.7.3-5. Explain how cultural and environmental characteristics affect the distribution and movement of people, goods, and ideas.	D2.Geo.7.6-8. Explain how changes in transportation and communication technology influence the spatial connections among human settlements and affect the diffusion of ideas and cultural practices.	D2.Geo.7.9-12. Analyze the reciprocal nature of how historical events and the spatial diffusion of ideas, technologies, and cultural practices have influenced migration patterns and the distribution of human population.
D2.Geo.8.K-2. Compare how people in different types of communities use local and distant environments to meet their daily needs.	D2.Geo.8.3-5. Explain how human settlements and movements relate to the locations and use of various natural resources.	D2.Geo.8.6-8. Analyze how relationships between humans and environments extend or contract spatial patterns of settlement and movement.	D2.Geo.8.9-12. Evaluate the impact of economic activities and political decisions on spatial patterns within and among urban, suburban, and rural regions.
D2.Geo.9.K-2. Describe the connections between the physical environment of a place and the economic activities found there.	D2.Geo.9.3-5. Analyze the effects of catastrophic environmental and technological events on human settlements and migration.	D2.Geo.9.6-8. Evaluate the influences of long-term human-induced environmental change on spatial patterns of conflict and cooperation.	D2.Geo.9.9-12. Evaluate the influence of long-term climate variability on human migration and settlement patterns, resource use, and land uses at local-to-global scales.

Global Interconnections: Changing Spatial Patterns

Global interconnections occur in both human and physical systems. Earth is a set of interconnected ecosystems of which humans are an influential part. Many natural phenomena have no perceptible boundaries. For example, the oceans are one dynamic system. The atmosphere covers the entire planet. Land and water forms shift over geological eons. Many life forms diffuse from place to place and bring environmental changes with them. Humans have spread across the planet, along with their cultural practices, artifacts, languages, diseases, and other attributes. All of these interconnections create complex spatial

patterns at multiple scales that continue to change over time. Global-scale issues and problems cannot be resolved without extensive collaboration among the world’s peoples, nations, and economic organizations. Asking and answering questions about global interconnections and spatial patterns are a necessary part of geographic reasoning.

Indicators of Dimension 2—Global Interconnections—are detailed in the suggested K-12 Pathway for College, Career, and Civic Readiness in Table 19.

**TABLE 19: Suggested K-12 Pathway for College, Career, and Civic Readiness
Dimension 2, Global Interconnections**

BY THE END OF GRADE 2	BY THE END OF GRADE 5	BY THE END OF GRADE 8	BY THE END OF GRADE 12
INDIVIDUALLY AND WITH OTHERS, STUDENTS...			
D2.Geo.10.K-2. Describe changes in the physical and cultural characteristics of various world regions.	D2.Geo.10.3-5. Explain why environmental characteristics vary among different world regions.	D2.Geo.10.6-8. Analyze the ways in which cultural and environmental characteristics vary among various regions of the world.	D2.Geo.10.9-12. Evaluate how changes in the environmental and cultural characteristics of a place or region influence spatial patterns of trade and land use.
D2.Geo.11.K-2. Explain how the consumption of products connects people to distant places.	D2.Geo.11.3-5. Describe how the spatial patterns of economic activities in a place change over time because of interactions with nearby and distant places.	D2.Geo.11.6-8. Explain how the relationship between the environmental characteristics of places and production of goods influences the spatial patterns of world trade.	D2.Geo.11.9-12. Evaluate how economic globalization and the expanding use of scarce resources contribute to conflict and cooperation within and among countries.
D2.Geo.12.K-2. Identify ways that a catastrophic disaster may affect people living in a place.	D2.Geo.12.3-5. Explain how natural and human-made catastrophic events in one place affect people living in other places.	D2.Geo.12.6-8. Explain how global changes in population distribution patterns affect changes in land use in particular places.	D2.Geo.12.9-12. Evaluate the consequences of human-made and natural catastrophes on global trade, politics, and human migration.