

World Geography

Spatial Thinking and Skills

- 1 Properties and functions of geographic representations (e.g., maps, globes, graphs, diagrams, Internet-based mapping applications, geographic information systems, global positioning systems, remote sensing, geographic visualizations) affect how they can be used to represent, analyze, and interpret geographic patterns and processes. WG.9-12.1**

Complexity a

- a** Define the properties and functions of a geographic representation (e.g., maps, globes, graphs, diagrams, Internetbased mapping applications, geographic information systems, remote sensing, geographic visualizations). WG.9-12.1.A

Complexity b

- b** Identify the properties and functions of a specific map to determine its purpose (e.g., weather, location, store locations, bus line). WG.9-12.1.B

Complexity c

- c** Sort maps based on their purpose. WG.9-12.1.C

Learning Progression

- Recognize and use features of maps (e.g., compass rose, key or legend, scale, title). WG.9-12.1.LP.A
- Understand that different geographic representations are used for different purposes. WG.9-12.1.LP.B
- Utilize a map of the school or local community to get from one place to another. WG.9-12.1.LP.C
- Locate emergency exit map in the classroom and practice the route. WG.9-12.1.LP.D
- Engage with multiple forms of geographic representations (e.g., maps, globes, Internet-based maps, global positioning systems). WG.9-12.1.LP.E
- Engage with various forms of maps (e.g., political, relief maps, satellite images, topography map, road map, bus map). WG.9-12.1.LP.F

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- 2 Geographic representations and geospatial technologies are used to investigate, analyze, and communicate the results of geographic problem-solving. WG.9-12.2**

Complexity a

- a** Compare and contrast geographic representations and geospatial technologies to investigate their purposes. WG.9-12.2.A

Complexity b

- b** Identify the purpose of a geographic representation or geospatial technology. **WG.9-12.2.B**

Complexity c

- c** Match the geographic representation or geospatial technology with a device that supports it (e.g., GPS in car or phone). **WG.9-12.2.C**

Learning Progression

- Use a map of the local community to solve a problem, such as finding the safest route to a desired location. **WG.9-12.2.LP.A**
- Understand that geographic representations can be used to solve problems, such as school bus routes or traffic congestion. **WG.9-12.2.LP.B**
- Understand that an example of geospatial technology are Internet-based mapping applications (e.g., Google maps). **WG.9-12.2.LP.C**
- Engage with multiple forms of geographic representations (e.g., maps, globes, Internet-based maps, global positioning systems). **WG.9-12.2.LP.D**
- Engage with various forms of maps (e.g., political, relief maps, satellite images, topography map, road map, bus map). **WG.9-12.2.LP.E**

Environment and Society

- 3 Human modifications of the physical environment in one place often lead to changes in other places (e.g., construction of a dam provides downstream flood control; construction of a city bypass reduces commercial activity in the city center; implementation of dry farming techniques in a region leads to new transportation links and hubs).** **WG.9-12.3**

Complexity a

- a** Describe human changes to the environment in given areas that led to changes in other areas. **WG.9-12.3.A**

Complexity b

- b** Identify human changes to the environment in one area that led to change in another area. **WG.9-12.3.B**

Complexity c

- c** Identify human modifications that can change the environment (e.g., highway, factory, dam). **WG.9-12.3.C**

Learning Progression

- Given a human change to the physical environment, predict possible changes elsewhere (e.g., the next town, further down the road). **WG.9-12.3.LP.A**
- Identify ways changes to the physical environment can impact people with disabilities. **WG.9-12.3.LP.B**
- Understand that human actions can change the physical environment in expected and unexpected ways. **WG.9-12.3.LP.C**
- Define physical environment as the natural world (land, air, water, plants and animals) and human construction (buildings, roads, dams). **WG.9-12.3.LP.D**
- Discuss how a change in the school or local community can lead to other changes in the school/ community - some changes may be in areas that were unexpected. **WG.9-12.3.LP.E**
- Identify human changes in the local community. **WG.9-12.3.LP.F**
- Engage with representations of human environmental modifications, such as dams, highways, construction sites. **WG.9-12.3.LP.G**

4 Human societies use a variety of strategies to adapt to the opportunities and constraints presented by the physical environment (e.g., farming in flood plains and terraced farming, building hydroelectric plants by waterfalls and constructing hydroelectric dams, using solar panels as a heat source and using extra insulation to retain heat). **WG.9-12.4**

Complexity a

- a** Describe ways society has adapted to an opportunity or constraint presented by the physical environment. **WG.9-12.4.A**

Complexity b

- b** Identify one way a society has adapted to an opportunity or constraint presented by the physical environment. **WG.9-12.4.B**

Complexity c

- c** Identify a potential adaptation to a physical environment (e.g., solar panel, hydroelectric plant). **WG.9-12.4.C**

Learning Progression

- Match representations of features the physical environment with representations interacting with the features (e.g., lake and fishing boat, forest and log cabins, plains and farms). **WG.9-12.4.LP.A**
- Recognize that constraints in the environment are features (e.g., desert, flood zone, steep mountains) that societies have to adapt to in order to meet their basic needs. **WG.9-12.4.LP.B**
- Recognize that opportunities in the environment are favorable features (e.g., waterfall, coal, river) that societies can use to meet their needs. **WG.9-12.4.LP.C**
- Understand that societies meet their needs in different ways depending upon the local environment. **WG.9-12.4.LP.D**
- Sort representations of natural environment and human modifications of the environment. **WG.9-12.4.LP.E**
- Engage with representations of people interacting with natural features in the environment. **WG.9-12.4.LP.F**

5 Physical processes influence the formation and distribution of renewable, non-renewable and flow resources (e.g., tectonic activity plays a role in the formation and location of fossil fuels; erosion plays a role in the formation of sedimentary rocks; rainfall patterns affect regional drainage patterns). **WG.9-12.5**

Complexity a

- a** Identify ways renewable and non-renewable resources are used by people. **WG.9-12.5.A**

Complexity b

- b** Distinguish between renewable and nonrenewable resources. **WG.9-12.5.B**

Complexity c

- c** Identify resources that are renewable and nonrenewable. **WG.9-12.5.C**

Learning Progression

- Understand that different resources are available in different parts of the world. **WG.9-12.5.LP.C**
- Understand that non-renewable resources cannot be readily replaced once used (e.g., oil). **WG.9-12.5.LP.D**
- Understand that renewable resources can be replenished if not overused (e.g., trees). **WG.9-12.5.LP.E**
- Engage with representations people using renewable resources. **WG.9-12.5.LP.F**

6 There are costs and benefits of using renewable, non-renewable and flow resources (e.g., availability, sustainability, environmental impact, expense). **WG.9-12.6**

Complexity a

- a** Compare and contrast the costs and benefits of using renewable and non-renewable resources. **WG.9-12.6.A**

Complexity b

- b** Match a renewable and nonrenewable resource with its cost or benefit. **WG.9-12.6.B**

Complexity c

- c** Identify resources that are renewable and nonrenewable. **WG.9-12.6.C**

Learning Progression

- Discuss possible costs (negative outcomes) of over-using non-renewable resources. **WG.9-12.6.LP.A**
- Identify renewable and non-renewable resources in the local environment. **WG.9-12.6.LP.B**
- Understand that non-renewable resources cannot be readily replaced once used (e.g., oil). **WG.9-12.6.LP.C**
- Understand that renewable resources can be replenished if not overused (e.g., trees). **WG.9-12.6.LP.D**
- Engage with representations of people using non-renewable resources. **WG.9-12.6.LP.E**
- Engage with making a personal decision by listing the pros (benefits) and cons (costs). **WG.9-12.6.LP.F**

7 Human interaction with the environment is affected by cultural characteristics and technological resources (e.g., plowing with oxen or with tractors, development of water resources for industry or recreation, resource conservation or development). **WG.9-12.7**

Complexity a

- a** Research how human interactions within the environment are affected by culture and by technological resources. **WG.9-12.7.A**

Complexity b

- b** Identify a cultural characteristic or technological resource that is affected by human interaction. **WG.9-12.7.B**

Complexity c

- c** Match a cultural characteristic or technological resource and how it is affected by human interaction (e.g., plowing with oxen vs. plowing with tractors). **WG.9-12.7.C**

Learning Progression

- Understand that technological resources may impact how humans interact with the environment (e.g., tractors allow farmers to increase the amount of land they farm). **WG.9-12.7.LP.A**
- Understand that cultural beliefs may impact how humans interact with animals (e.g., Hindu belief that cows are sacred limits the consumption of beef in India). **WG.9-12.7.LP.B**
- Understand that technological resources consist of information, tools, and products that humans create to meet the needs of society (e.g., creating a spear from wood and stone). **WG.9-12.7.LP.C**
- Understand that culture is the common beliefs, values, language, and traditions that a society shares. **WG.9-12.7.LP.D**
- Engage with images of various cultures interacting with their environments focusing on a common human need, such as shelter (e.g. all the different types of houses). **WG.9-12.7.LP.E**

Movement

8 Physical, cultural, economic, and political factors contribute to human migrations (e.g., drought, religious conflicts, job opportunities, immigration laws). **WG.9-12.8**

Complexity a

- a** Research and explain factors that contribute to human migrations. **WG.9-12.8.A**

Complexity b

- b** Describe factors that contribute to human migrations. **WG.9-12.8.B**

Complexity c

- c** Identify a factor that contributes to human migrations. **WG.9-12.8.C**

Learning Progression

- Recognize reasons people may be attracted to certain locations as pull factors (jobs, freedoms, safety, available resources). **WG.9-12.8.LP.A**
- Recognize reasons people may choose to migrate to a new location as push factors (drought, conflicts, job opportunities). **WG.9-12.8.LP.B**
- Identify migration as movement from one place to another with the intention of settling in a new location. **WG.9-12.8.LP.C**
- Engage with individuals within school or community who have immigrated or migrated into the local community. **WG.9-12.8.LP.D**

9 Human migrations impact physical and human systems (e.g., stress on food supplies in refugee camps, removal of natural obstacles to movement, harvest productivity and migrant labor, calls for an official language in countries with high immigration, reduction in city tax revenues due to urban emigration). **WG.9-12.9**

Complexity a

- a** Explain the impact immigration has for a geographical area (e.g., new stores, restaurants, buildings, parks, etc.). [WG.9-12.9.A](#)

Complexity b

- b** Identify several impacts of human migrations to a given area (e.g., road expansion, new schools, more restaurants, etc.). [WG.9-12.9.B](#)

Complexity c

- c** Identify an impact of human migrations to a given area (e.g., road expansion, new schools, more restaurants, etc.). [WG.9-12.9.C](#)

Learning Progression

- Identify some of the ways human migration impacts communities where they settle (e.g., competition for housing, jobs, and other resources; and sharing of languages, religion and other cultural practices). [WG.9-12.9.LP.A](#)
- Understand that humans migrating to a given area impact the community in many ways. [WG.9-12.9.LP.B](#)
- Identify migration as movement from one place to another with the intention of settling in a new community. [WG.9-12.9.LP.C](#)
- Engage with individuals within school or community who have immigrated or migrated into the local community. [WG.9-12.9.LP.D](#)

10 Activities and patterns of trade and communication create interdependence among countries in different regions (e.g., seed corn grown in Iowa and planted in South America, high-definition televisions manufactured in Japan and viewed in the United States, news outlets from many countries available around the world via the Internet, instant access to data affecting stock markets in different countries). [WG.9-12.10](#)

Complexity a

- a** Explain how a commonly used product is produced used, and supported in different parts of the world. [WG.9-12.10.A](#)

Complexity b

- b** Illustrate the interdependence using a common product or business. (e.g., vehicle made from different parts around the world). [WG.9-12.10.B](#)

Complexity c

- c** Identify items that have been made in another country. [WG.9-12.10.C](#)

Learning Progression

- Identify countries the U.S. relies upon to supply goods we do not make or grow here (e.g., China, Mexico, Germany, India, Brazil). **WG.9-12.10.LP.A**
 - Define interdependence as a mutual reliance between two or more countries based on trade. Nations rely on other nations for the goods they do not produce for themselves. **WG.9-12.10.LP.B**
 - Explain why people in Ohio purchase items made in other countries (e.g., reduced prices, resources local to other country, agricultural climate). **WG.9-12.10.LP.C**
 - Use a world map to identify origin of items produced in other countries. **WG.9-12.10.LP.D**
 - Engage with items labeled as produced in other countries. **WG.9-12.10.LP.E**
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Region

11 Criteria are used to organize regions and as the criteria change, the identified regions change (e.g., types of economic activities, ethnic groups, natural vegetation). **WG.9-12.11**

Complexity a

- a** Define the characteristics (formal, functional, and perceptual) of an identified region. **WG.9-12.11.A**

Complexity b

- b** Describe physical and human characteristics of the local region. **WG.9-12.11.B**

Complexity c

- c** Identify human or physical characteristics of the local region. **WG.9-12.11.C**

Learning Progression

- Understand that the world can be organized into regions using different characteristics like land formations (mountains, desert), climate (polar, temperate), or economic activities (industrial, agricultural). **WG.9-12.11.LP.A**
 - Identify physical characteristics of regions using pictures or other representations (desert, mountains, bodies of water, forest). **WG.9-12.11.LP.B**
 - Define regions as areas of the world having definable characteristics but not always fixed boundaries. **WG.9-12.11.LP.C**
 - Engage with representations of the physical environment, possibly through tactile interaction with water, soil, sand, and rocks, and hot and cold air temperature, to connect with the idea of different earth surfaces. **WG.9-12.11.LP.D**
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12 The characteristics of regions change over time and there are consequences related to those changes (e.g., industrial belt to rust belt, pristine locations to tourist attractions, colony to independent state). **WG.9-12.12**

Complexity a

- a Explain ways that a region changes due to human activity (e.g., industrial belt to rust belt, pristine locations to tourist attractions, colony to independent state) **WG.9-12.12.A**

Complexity b

- b Identify changes that have occurred in various regions over time. **WG.9-12.12.B**

Complexity c

- c Identify a change that has occurred in a given region over time. **WG.9-12.12.C**

Learning Progression

- Identify a consequence of a change in the local region. **WG.9-12.12.LP.A**
- Identify characteristics of the local region that have changed over time (urbanization, ethnic communities). **WG.9-12.12.LP.B**
- Define regions as areas of the world having definable characteristics, but not always fixed boundaries. **WG.9-12.12.LP.C**
- Engage with representations of the local community as it has changed over time. **WG.9-12.12.LP.D**

13 There are interconnections within and among physical and human regions (e.g., river systems, transportation linkages, common currency). **WG.9-12.13**

Complexity a

- a Compare and contrast the interconnections among physical and human regions the characteristics of an identified region. **WG.9-12.13.A**

Complexity b

- b Describe physical and human characteristics of a region. **WG.9-12.13.B**

Complexity c

- c Identify human or physical characteristics of a region. **WG.9-12.13.C**

Learning Progression

- Discuss how ‘human’ characteristics of a region, like roads and bridges, can connect people within a physical region like the Great Lakes region (e.g., multiple bridges and tunnels connect Detroit to Windsor). [WG.9-12.13.LP.A](#)
- Understand that the world can be organized into regions using different characteristics like land formations (mountains, desert), climate (polar, temperate), or economic activities (industrial, agricultural). [WG.9-12.13.LP.B](#)
- Identify physical characteristics of regions using pictures or other representations (desert, mountains, bodies of water, forest). [WG.9-12.13.LP.C](#)
- Define regions as areas of the world having definable characteristics, but not always fixed boundaries. [WG.9-12.13.LP.D](#)
- Engage with geographic representations of world regions. [WG.9-12.13.LP.E](#)
- Engage with representations of the physical environment, possibly through tactile interaction with water, soil, sand, and rocks, and hot and cold air temperature, to connect with the idea of different earth surfaces. [WG.9-12.13.LP.F](#)

14 Regions are used as a basis to analyze global geographic issues (e.g., desertification, political disputes, economic unions). [WG.9-12.14](#)

Complexity a

- a** Research and explain how a region is impacted by geographical issues. [WG.9-12.14.A](#)

Complexity b

- b** Identify ways that a region is impacted by a geographical issue. [WG.9-12.14.B](#)

Complexity c

- c** Identify one way that a region is impacted by a geographical issue. [WG.9-12.14.C](#)

Learning Progression

- Discuss how changes in human activity (e.g., urbanization) or in the physical environment (e.g., pollution) influence those geographic regions creating international issues. [WG.9-12.14.LP.A](#)
 - Understand that geographic issues are concerns or crises that involve the interactions of physical characteristics and human activity [WG.9-12.14.LP.B](#)
 - Define regions as areas of the world having definable characteristics, but not always fixed boundaries. [WG.9-12.14.LP.C](#)
 - Engage with representations of human impact on the environment (e.g., roads, dams, cities). [WG.9-12.14.LP.D](#)
 - Engage with representations or examples of human impact on the local environment, including litter, playgrounds, parks, or farming. [WG.9-12.14.LP.E](#)
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Human Settlement

15 Patterns of settlement change over time in terms of functions, sizes, and spatial patterns (e.g., a canal town becomes an industrial city, a rural area becomes a transportation hub, cities merge into a megalopolis). WG.9-12.15

Complexity a

- a** Evaluate patterns of human settlement over time. WG.9-12.15.A

Complexity b

- b** Given a pattern of human development, identify how that settlement has changed over time. WG.9-12.15.B

Complexity c

- c** Sequence two or more settlement changes in a region over time. WG.9-12.15.C

Learning Progression

- Identify 'human' characteristics in the local region that have changed over time (urbanization, ethnic communities). WG.9-12.15.LP.A
- Use maps of the United States and the world to identify urban, suburban, and rural regions. WG.9-12.15.LP.B
- Understand that people live in urban, suburban, and rural areas. WG.9-12.15.LP.C
- Define patterns of human settlement as repeated or expected ways that settlements grow (urbanization: people settle near water, settlements grow into cities grow near water, people migrate from rural areas to cities). WG.9-12.15.LP.D
- Define regions as areas of the world having definable characteristics, but not always fixed boundaries. WG.9-12.15.LP.E
- Compare maps of the world showing major population centers with satellite images of the Earth at night. WG.9-12.15.LP.F
- Engage with maps of the world showing major population centers. WG.9-12.15.LP.G

16 Urbanization provides opportunities and challenges for physical and human systems in cities and their surrounding regions (e.g., development of suburbs, loss of habitat, central markets, squatter settlements on city outskirts, regional specialization in services or products, creation of ethnic enclaves). WG.9-12.16

Complexity a

- a** Compare and contrast the pros and cons of urbanization. WG.9-12.16.A

Complexity b

- b** Explain urbanization (who, what, where, when, how/why). WG.9-12.16.B

Complexity c

- c** Identify a pro or a con of urbanization. WG.9-12.16.C

Learning Progression

- Define urbanization as the population shift from rural to urban residency, the increase in the proportion of people living in urban areas, and the ways in which each society adapts to this change. **WG.9-12.16.LP.A**
 - Use maps of the United States and the world to identify urban, suburban, and rural regions. **WG.9-12.16.LP.B**
 - Understand that people live in urban, suburban, and rural areas. **WG.9-12.16.LP.C**
 - Compare maps of the world showing major population centers with satellite images of the Earth at night. **WG.9-12.16.LP.D**
 - Engage with maps of the world showing major population centers. **WG.9-12.16.LP.E**
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Globalization

17 Globalization has shaped new cultural, economic and political ideas and entities (e.g., universal human rights, European Union, terrorist networks). **WG.9-12.17**

Complexity a

- a** Summarize the consequences (cultural, economic, physical, or political) of globalization. **WG.9-12.17.A**

Complexity b

- b** Identify an impact of globalization on cultural, economic, or political ideas. **WG.9-12.17.B**

Complexity c

- c** Match an impact on globalization on whether it is cultural, economic, or political. **WG.9-12.17.C**

Learning Progression

- Understand that countries may participate in political organizations to help prevent and settle disputes that may arise as a result of globalization. **WG.9-12.17.LP.A**
 - Define globalization as the development of an increasingly integrated world economy marked by the international trade of products and sharing of ideas. **WG.9-12.17.LP.B**
 - Locate different countries on a world map or globe. **WG.9-12.17.LP.C**
 - Engage with different geographic representations of the world. **WG.9-12.17.LP.D**
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18 Globalization has cultural, economic, physical, and political consequences (e.g., Internet access increases availability of information, outsourcing leads to regional unemployment, development impacts local ecosystems and economies, computer hacking into sensitive databases leads to insecurity). **WG.9-12.18**

Complexity a

- a** Summarize the consequences (cultural, economic, physical, or political) of globalization. **WG.9-12.18.A**

Complexity b

- b** Identify several consequences of globalization. **WG.9-12.18.B**

Complexity c

- c** Match the consequences of globalization with its area of impact (cultural, economic, physical, or political). **WG.9-12.18.C**

Learning Progression

- Understand that there are economic risks and benefits for countries participating in global trade because they become interdependent. **WG.9-12.18.LP.A**
- Explain why people in Ohio purchase items imported from other countries (e.g., reduced prices, resources local to other country, agricultural climate). **WG.9-12.18.LP.B**
- Use a world map to identify origin of items produced in other countries. **WG.9-12.18.LP.C**
- Engage with items labeled as produced in other countries. **WG.9-12.18.LP.D**

19 Global trade and communication systems reduce the effect of time on the distribution of goods, Services, and information (e.g., sustainability of perishable foods, online brokering versus personal brokers, Internet access versus library access). **WG.9-12.19**

Complexity a

- a** Compare and contrast communication systems to reduce the effect of time on distribution of goods, services and information. **WG.9-12.19.A**

Complexity b

- b** Identify the effect of a given cause of global trade that reduces the effect of time on distribution of goods, services and information. **WG.9-12.19.B**

Complexity c

- c** Sequence global trade and communication systems that reduce the effect of time on the distribution of goods, services and information. **WG.9-12.19.C**

Learning Progression

- Discuss how global trade has improved consumer access to international products. [WG.9-12.19.LP.A](#)
- Discuss how global communication systems have changed how people share information. [WG.9-12.19.LP.B](#)
- Define global trade as the exchange of goods and services between countries marked by specialization and interdependence. [WG.9-12.19.LP.C](#)
- Define global communication systems as the use of technological innovations to share information across borders. [WG.9-12.19.LP.D](#)
- Engage with images of modern communication systems and communication systems from the past. [WG.9-12.19.LP.E](#)