

NGS Geography Standards

The World in Spatial Terms

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective

- K-4 Targets**
- a. The characteristics and purpose of geographic representations -- such as globes, graphs, diagrams, aerial and other photographs, and satellite-produced images
 - b. The characteristics and purposes of tools and technologies -- such as reference works and computer-based geographic representation
 - c. How to display spatial information on maps and other geographic representations
 - d. How to use appropriate geographic tools and technologies

- 5-8 Targets**
- a. The characteristics, functions, and applications of maps, globes, aerial and other photographs, and satellite-produced images and models to solve geographic problems
 - b. How to make and use maps, globes, graphs, charts, models, and databases to analyze spatial distributions and patterns
 - c. The relative advantages and disadvantages of using maps, globes, aerial and other photographs, satellite-produced images and models to solve geographic problems

- 9-12 Targets**
- a. How to use maps and other graphic representations to depict geographic problems
 - b. How to use technologies to represent and interpret Earth's physical and human systems
 - c. How to use geographic representatives and tools to analyze, explain, and solve, geographic problems

2. How to use mental maps to organize information about people, places, and environments in spatial context

- K-4 Targets**
- a. The locations of places within the local community and in nearby communities
 - b. The location of the Earth's continents and oceans in relation to each other and to principle parallels and meridians
 - c. The location of major physical and human features in the United States and on Earth



- 5-8 Targets**
- a. The distribution of major physical and human features at different scales (local to global)
 - b. How to translate mental maps into appropriate graphics to display geographic information and answer geographic questions
 - c. How perception influences people's mental maps and attitudes about places

- 9-12 Targets**
- a. How to use mental maps of physical and human features of the world to answer complex geographic questions
 - b. How mental maps reflect the human perception of places
 - c. How mental maps influence spatial and environmental decision making

3. How to analyze the spatial organization of people, places, and environments on Earth's surface

- K-4 Targets**
- a. The spatial elements of point, line, area, and volume
 - b. The spatial concepts of location, distance, scale, movement, and region
 - c. That places and features are distributed spatially across the Earth's surface
 - d. The causes and consequences of spatial interaction on the Earth's surface

- 5-8 Targets**
- a. How to use the elements of space to describe spatial patterns
 - b. How to use spatial concepts to explain spatial structure
 - c. How spatial processes shape patterns of spatial organization
 - d. How to model spatial organization

- 9-12 Targets**
- a. The generalizations that describe and explain spatial interaction
 - b. The models that describe patterns of spatial organization
 - c. The spatial behavior of people
 - d. How to apply concepts and models of spatial organization to make decisions



Places and Regions

4. The physical and Human Characteristics of Places

- K-4 Targets**
- a. The physical characteristics of places (e.g., landforms, bodies of water, soil, vegetation, and weather and climate)
 - b. The human characteristic of places (e.g., population distributions, settlement patterns, languages, ethnicity, nationality, and religious beliefs)
 - c. How physical and human processes together shape places

- 5-8 Targets**
- a. How different physical processes shape places
 - b. How different human groups alter places in distinctive ways
 - c. The role of technology in shaping the characteristics of places

- 9-12 Targets**
- a. The meaning and significance of place
 - b. The changing physical and human characteristics of places
 - c. How relationships between humans and the physical environment lead to the formation of places and to a sense of personal and community identity

5. That people create regions to interpret Earth's complexity

- K-4 Targets**
- a. The concept of region as an area of Earth's surface with unifying geographic characteristics
 - b. The similarities and differences among regions
 - c. The ways in which regions change

- 5-8 Targets**
- a. The elements and types of regions
 - b. How and why regions change
 - c. The connections among regions
 - d. The influences and effects of regional labels and images

- 9-12 Targets**
- a. How multiple criteria can be used to define a region
 - b. The structure of regional systems
 - c. The ways in which physical and human regional systems are interconnected
 - d. How to use regions to analyze geographic issues



6. How culture and experience influence people's perceptions of places and regions

- K-4 Targets**
- a. How to describe the student's own community and region from different perspectives
 - b. Ways in which different people perceive places and regions

- 5-8 Targets**
- a. How personal characteristics affect our perception of places and region
 - b. How culture and technology affect perception of places and regions
 - c. How places and regions serve as cultural symbols

- 9-12 Targets**
- a. Why places and regions serve as symbols for individuals and society
 - b. Why different groups of people within a society view places and regions differently
 - c. How changing perceptions of places and regions reflect cultural change

Physical Systems

7. The physical processes that shape the patterns of Earth's surface

- K-4 Targets**
- a. The components of Earth's physical systems; the atmosphere, lithosphere, hydrosphere, and biosphere
 - b. How patterns (location, distribution, and association) of features on Earth's surface are shaped by physical processes
 - c. How Earth-Sun relations affect conditions on Earth

- 5-8 Targets**
- a. How physical processes shape patterns in the physical environment
 - b. How Earth-Sun relationships affect physical processes and patterns on Earth
 - c. How physical processes influence the formation and distribution of resources
 - d. How to predict the consequences of physical processes on Earth's surface

- 9-12 Targets**
- a. The dynamics of the four basic components of Earth's physical systems; the atmosphere, lithosphere, hydrosphere, and biosphere
 - b. The interaction of Earth's physical systems



- c. The spatial variation in the consequences of physical processes across Earth's surface

8. The characteristics and spatial distribution of ecosystems on Earth's surface

- K-4 Targets**
- a. The components of the ecosystems
 - b. The distribution and patterns of ecosystems
 - c. How humans interact with ecosystems

- 5-8 Targets**
- a. The local and global patterns of ecosystems
 - b. How ecosystems work
 - c. How physical processes produce changes in ecosystems
 - d. How human activities influence changes in ecosystems

- 9-12 Targets**
- a. The distribution and characteristics of ecosystems
 - b. The biodiversity and productivity of ecosystems
 - c. The importance of ecosystems in people's understanding of environmental issues

Human Systems

9. The characteristics, distribution, and migration of human populations on the Earth's surface

- K-4 Targets**
- a. The spatial distribution of population
 - b. The characteristics of population at different scales (local to global)
 - c. The causes and effects of human migration

- 5-8 Targets**
- a. The demographic structure of population
 - b. The reasons for spatial variations in population distribution
 - c. The types and historical patterns of human migration
 - d. The effects of migration on the characteristics of place

- 9-12 Targets**
- a. Trends in world population numbers and patterns
 - b. The impact of human migration on physical and human systems



10. The characteristics, distribution, and complexity of Earth's cultural mosaics

- K-4 Targets**
- a. How the characteristics of culture affect the ways in which people live
 - b. How patterns of culture vary across Earth's surface
 - c. How cultures change

- 5-8 Targets**
- a. The spatial distribution of culture at different scales (local to global)
 - b. How to read elements of the landscape as a mirror of culture
 - c. The process of cultural diffusion

- 9-12 Targets**
- a. The impact of culture on ways of life in different regions
 - b. How cultures shape the character of a region
 - c. The spatial characteristics of the processes of cultural convergence and divergence

11. The patterns and networks of economic interdependence on Earth's surface

- K-4 Targets**
- a. The location and spatial distribution of economic activities
 - b. The factors that influence the location and spatial distribution of economic factors
 - c. The transportation and communication networks used in daily life

- 5-8 Targets**
- a. Ways to classify economic activity
 - b. The basis for global interdependence
 - c. Reasons for the spatial patterns of economic activities
 - d. How much changes in technology, transportation, and communication affect the location of economic activities

- 9-12 Targets**
- a. The classification, characteristics, and spatial distribution of economic systems
 - b. How places of various size function as centers of economic activity
 - c. The increasing economic interdependence of the world's countries



12. The processes, patterns, and functions of human settlement

- K-4 Targets**
- The types and spatial patterns of settlement
 - The factors that affect where people settle
 - How spatial patterns of human settlement change
 - The spatial characteristics of cities

- 5-8 Targets**
- The spatial patterns of settlement in different regions of the world
 - What human events led to the development of cities
 - The causes and consequences of urbanization
 - The internal spatial structure of urban settlements

- 9-12 Targets**
- The functions, sizes, and spatial arrangements of urban areas
 - The differing characteristics of settlement in developed countries
 - The processes that change the internal structure of urban areas
 - The evolving forms of present-day urban areas

13. How the forces of cooperation and conflict among people influence the division and control of Earth's surface

- K-4 Targets**
- The types of territorial units
 - The extent and characteristics of political, social, and economic units at different scales (local and global)
 - How people divide Earth's surface
 - How cooperation and conflict affect places in the local community

- 5-8 Targets**
- The multiple territorial divisions of the student's own world
 - How cooperation and conflict among people contribute to political division of the Earth's surface
 - How cooperation and conflict among people contribute to economic and social divisions of Earth's surface

- 9-12 Targets**
- Why and how cooperation and conflict are involved in shaping the distribution of social, political, and economic spaces on Earth at different scales
 - The impact of multiple spatial divisions on people's daily lives



- c. How differing points of view and self-interests play a role in conflict over territory and resources

Environment and Society

14. How human actions modify the physical environment

- K-4 Targets**
- a. How people depend on the physical environment
 - b. How people modify the physical environment
 - c. That the physical environment can both accommodate and be endangered by human activities

- 5-8 Targets**
- a. The consequences of human modification of the physical environment
 - b. How human modification of the physical environment in one place often lead to changes in other places
 - c. The role of technology in the human modification of the physical environment

- 9-12 Targets**
- a. The role of technology in the capacity of the physical environment to accommodate human modification
 - b. The significance of the global impacts of human modification of the physical environment
 - c. How to apply appropriate models and information to understand environmental issues

15. How physical systems affect human systems

- K-4 Targets**
- a. How variations within the physical environment produce spatial patterns that affect human adaptation
 - b. The ways in which the physical environment provides opportunities for people
 - c. The ways in which the physical environment constrains human activities

- 5-8 Targets**
- a. Human responses to variations in physical systems
 - b. How the characteristics of different physical environments provide opportunities for place constraints on human activities
 - c. How natural hazards affect human activities

- 9-12 Targets**
- a. How changes in the physical environment can diminish its capacity to support human activity



- b. Strategies to respond to constraints placed on human systems by the physical environment
- c. How humans perceive and react to natural hazards

16. The changes that occur in the meaning, use, distribution, and importance of resources

- K-4 Targets**
- a. The characteristics of renewable, non renewable, and flow resources
 - b. The spatial distribution of resources
 - c. The role of resources in daily life

- 5-8 Targets**
- a. The worldwide distribution and use of resources
 - b. Why people have different viewpoints regarding resource use
 - c. How technology affects the definitions of, access to, and use of resources
 - d. The fundamental role of energy resources in society

- 9-12 Targets**
- a. How the spatial distribution of resources affects patterns of human settlement
 - b. How resource development and use change over time
 - c. The geographic contexts influence people and events over time

17. How to apply geography to interpret the past

- K-4 Targets**
- a. How places and geographic contexts change over time
 - b. That people's perceptions of places and geographic contexts change over time
 - c. That geographic contexts influence people and events over time

- 5-8 Targets**
- a. How the spatial organization of a society changes over time
 - b. How people's differing perceptions of places, peoples, and resources have affected events and conditions in the past
 - c. How geographic contexts have influenced events and conditions in the past

- 9-12 Targets**
- a. How processes of spatial change affect events and conditions



- b. How changing perceptions of places and environments affect the spatial behavior of people
- c. The fundamental role that geographical context has played in affecting events in history

18. How to apply geography to interpret the present and plan for the future

- K-4 Targets**
- a. The dynamic character of geographic contexts
 - b. How people's perceptions affect their interpretation of the world
 - c. The spatial dimensions of social environmental problems

- 5-8 Targets**
- a. How the interaction of physical and human systems may shape present and future conditions on Earth
 - b. How varying points of view on geographic context influence plans for change
 - c. How to apply the geographic point of view to solve social and environmental problems by making geographically informed decisions

- 9-12 Targets**
- a. How different points of view influence the development of policies designed to use and manage Earth's resources
 - b. Contemporary issues in the context of spatial and environmental perspectives
 - c. How to use geographic knowledge, skills, and perspectives to analyze problems and make decisions

