

What's New in the Second Edition and Why

3. Changes to the Design of the Standards

The contemporary digital world offers opportunities not even dreamed of when the first edition was published in 1994. This updated version of *Geography for Life* is designed to be user friendly and flexible. Instead of dividing the Standards by grade, this version

presents each Standard with all three grade levels represented on the same page. Thus, one can read across to see how knowledge and understanding builds across the grades for each content area and read down to see how knowledge and understanding builds within one theme at one grade level.

Each Standard is grouped within an *Essential Element*.

Essential Element: The World in Spatial Terms

GEOGRAPHY STANDARD 1: How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

4 th GRADE <small>the student knows and understands:</small>	8 th GRADE <small>the student knows and understands:</small>	12 th GRADE <small>the student knows and understands:</small>
Properties and Functions of Geographic Representations	Properties and Functions of Geographic Representations	Properties and Functions of Geographic Representations
<p>1. Properties and functions of geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations</p> <p><i>Therefore, the student is able to:</i></p> <p>A. Identify and describe the properties (position and orientation, symbols, scale, perspective, coordinate systems) and functions of geographic representations, as exemplified by being able to</p> <ul style="list-style-type: none"> ▶ Identify and describe the properties of a variety of maps and globes (e.g., title, legend, cardinal and intermediate directions, scale, symbols, grid, principal parallels, meridians) and purposes (wayfinding, reference, thematic). ▶ Identify and describe the functions of a variety of geographic representations. ▶ Identify and describe the properties and functions of maps students collect from magazines, news articles, and tourist brochures. <p>B. Describe how properties of geographic representations determine the purposes they can be used for, as exemplified by being able to</p> <ul style="list-style-type: none"> ▶ Identify the maps or types of maps most appropriate for specific purposes, (e.g., to locate physical and/or human features, to determine the shortest route from one town to another town, to compare the number of people living at two or more locations). ▶ Describe how a variety of geographic representations (maps, globes, graphs, diagrams, aerial and other photographs, GPS) are used to communicate different types of information. ▶ Describe how maps are created for a specific purpose (e.g., school fire-drill map, the route from home to school, classroom map of learning center materials). 	<p>1. The advantages and disadvantages of using different geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations for analyzing spatial distributions and patterns</p> <p><i>Therefore, the student is able to:</i></p> <p>A. Analyze and explain the properties (position and orientation, projections, symbols, scale, perspective, coordinate systems) and functions of geographic representations, as exemplified by being able to</p> <ul style="list-style-type: none"> ▶ Analyze geographic representations based on their properties (e.g., orientation, grid system, scale, resolution, and content) and purposes (e.g., using GISs and digital globes to explore geographic information and relationships at a range of scales). ▶ Analyze the properties of three geographic representations of the same place (such as a street map, a topographic map, and a satellite image) and explain how each might be suitable for a different purpose. ▶ Explain how different geographic representations are used in a variety of settings (e.g., a GIS in a computer lab, topographic map for backcountry hiking, GPS navigation for car travel). <p>B. Evaluate the appropriate use of geospatial representations for specific geographic tasks, such as analyzing spatial distributions and patterns, as exemplified by being able to</p> <ul style="list-style-type: none"> ▶ Explain why particular maps are appropriate for a specific purpose (e.g., a cartogram to illustrate total population, a remotely sensed image to observe land use change, topographic maps to consider the best location for a wind farm, a highway map to consider best routes for new transportation corridors). ▶ Identify and evaluate specific maps and/or geospatial technologies for use in different occupations (e.g., ambulance driver, airline pilot, ship's captain, cross-country truck driver, business analyst). ▶ Compare the patterns shown by geographic representations at different scales (e.g., neighborhood, city, state, country). 	<p>1. The advantages of coordinating multiple geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations to answer geographic questions</p> <p><i>Therefore, the student is able to:</i></p> <p>A. Explain the advantages of using multiple geographic representations to answer geographic questions, as exemplified by being able to</p> <ul style="list-style-type: none"> ▶ Explain how multiple geographic representations and geospatial technologies (e.g., GIS, GPS, RS, and geographic visualization) could be used to solve geographic problems (e.g., help determine where to locate a new playground, or identify dangerous street intersections within a community). ▶ Describe how an analysis of urbanization can be done using different geospatial technologies (e.g., RS for land use, GIS data layers to predict areas of high/low growth, GPS and GIS for identifying transportation issues regarding growth). ▶ Explain how multiple geospatial technologies can be used to solve land use problems (e.g., effects of new farming technologies on the sustainable production of food, or preservation of wetlands in bird migration flyways).

National Geography Standards, Second Edition

Part II: Standard 1: 22

Each *Standard title* is a summary of what the student should know and understand about a specific set of ideas and approaches.

Colored columns indicate the grade bands containing the detailed grade-level specific knowledge for each Standard.

Colored heading bars contain themes as organizers for the content in the Standard.

Knowledge statements explain exactly what a student should know and understand after completing a grade band.

Student performance statements state what the student should be able to do on the basis of this knowledge followed by three illustrative examples of learning opportunities.

Navigation aids are included to help identify the Standard and locate content.