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ABSTRACT

This booklet reports on the 1994 National Assessment of Educational Progress (NAEP) in geography for 4th, 8th, and 12th grade students, a test given for the first time to establish baseline data for measuring student progress in geography well into the future. The booklet contains the following sections: (1) Why We Assess Geography; (2) The 1994 NAEP in Geography; (3) What Is NAEP? (4) Creating a Framework for the Geography Assessment. with Assessment Preparation Guidelines and Other Considerations; (5 hat the 1994 Geography Assessment Examined, with Knowing and Doing id Thinking Skills; (6) What Is NAGB? (7) Geography Assessment Framework Elements; and (8) Special Features of the 1994 Geography Assessment. (EH)

Preparing Citizens for the 21st Century

Geography: Learning About Our World

The 1994 National Assessment of Educational Progress in Geography

National Assessment Governing Board
U.S. Department of Education

Our students must learn geography to understand their home—the Earth and all that is in it. The need for geographic knowledge increases as the world becomes more connected through technological advancement and shared concerns about economic, political, social, and environmental issues.

Geography provides students with a world view that is essential for living and working with many people and many nations.

It equips them with analytical skills necessary for making thoughtful decisions on economic, environmental, and political issues.

It sharpens observation and visual literacy skills.

It strengthens students' capabilities by providing them with technological skills that relate to the workplace.

It fosters the development of individuals who can cope—as citizens, parents, and workers—with the complexities of contemporary life.

The 1994 National Assessment of Educational Progress (NAEP) provides important information to measure student progress in specific subjects singled out by the National Education Goals.

These Goals require that all U.S. students demonstrate competency that is equal to or better than that of students in other developed nations in nine core subjects. Geography is one of those subjects.

In 1994, NAEP assessed students' knowledge of geography in grades 4, 8, and 12 for the first time. This assessment will establish a baseline for measuring student progress in geography well into the future.

Traditional geography emphasizes the memorization of isolated facts, such as place names and major crops. The new geography—the geography of our post-industrial society—requires students to reach beyond memorization and acquire knowledge that prepares them to analyze complex problems relevant to living in a connected world. They must learn to:

Ask geographic questions.

Acquire information from primary and secondary sources.

Master skills of observation and speculation.

Gain the ability to analyze, synthesize, and evaluate geographic information.

Develop and test geographic generalizations.

On a practical level, these skills enable students to enter the workplace equipped to cope with changing technologies; they engender thoughtful decisionmaking on a personal to global scale; and they stimulate curiosity about the workings of the world and the student's place in it.

NAEP is assessing geographic learning that is relevant to society's needs. This reflects NAEP's effort to find out not only *what* children

he National Assessment of Educational Progress (NAEP), the "Nation's Report Card," is the only nationally representative and continuing assessment of what America's students know and can do in various academic subjects. Since 1969, NAEP assessments have been conducted on a national sample of students in the areas of reading, mathematics, science, writing, and other fields. By making objective information on student performance available to policymakers, educators, and the general public, NAEP is an integral part of our Nation's evaluation of the condition and progress of education.

NAEP is a congressionally mandated project of the National Center for Education Statistics, U. S. Department of Education. Results are provided only for group performance. NAEP is forbidden by law to report data on individuals.

In 1990, Congress authorized NAEP to collect comparable State-by-State results for the first time on a voluntary trial basis, in eighth grade mathematics. State-level assessments have since taken place in 1992, 1994, and are planned for 1996. Over 40 States, the District of Columbia, and several territories have volunteered to take part in the State NAEP assessments.

know, but how well they can *apply* their knowledge to the realistic and challenging tasks that characterize their lives today and in the future.

Assessment Preparation–Guidelines

To prepare for the Geography Assessment, the National Assessment Governing Board (NAGB) established the Geography Consensus Project to create a framework for the assessment's development. That framework, constructed through a year-long nationwide consensus process, established what is most important for students to know and be able to do in geography.

The Project's Steering Committee, representing education, business, makers of public policy, and the general public, developed working guidelines for consensus development. These guidelines called for a geography assessment that:

- Reaches beyond current practice and leads instruction.
- Considers geography first as a distinct discipline and then relates it to other disciplines.
- Is outcomes based, not tied to any instructional scope and sequence.
- Incorporates internationally competitive standards implicit in the National Education Goals.
- Includes appropriate innovations for both mid- and long-range use.
- Ensures that what is valued is assessed.

The Project's Planning Committee, made up of leading geographic educators and practitioners and the general public, used these guidelines to develop a geography framework that is relevant to the future of the Nation. The framework was created with one question foremost in mind: *What fundamental geographic knowledge, understanding, and applications should students have mastered in order to be informed and productive 21st century citizens?*

Other Considerations

Geography, unlike many other subjects, is not taught as a separate topic in all schools. It can be learned in a wide variety of settings—not all of them restricted to the classroom. In developing the Geography Assessment Framework, great care was taken to ensure that the material broadly reflects what it is that students should know and be able to do in geography without specifying how or in what classes the material should be taught.

A solid grounding in geography helps students understand how the world works. It brings coherence to seemingly random events. The assessment will capture the range of geography content and thinking skills that students should possess as they progress through school and prepare for active participation in the world community.

Fourth graders should be able to use fundamental geographic knowledge and vocabulary; be able to illustrate ways people depend upon, adapt to, and modify the environment; and be able to demonstrate how an event in one location can have an effect upon another location.

In 1988 the National Assessment Governing Board (NAGB) was created by Congress to set policy for NAEP. The independent, 26-member Board is composed of State and local policymakers, teachers and curriculum specialists, testing experts, business representatives, and members of the general public.

The Board is responsible for selecting subject areas to be assessed and for determining appropriate achievement goals for each grade and subject tested. NAGB has responsibility for developing test objectives and specifications, designing guidelines for reporting and disseminating results, and improving the form and use of the assessment. The Board also is charged with ensuring that all items selected for use in NAEP are free from racial, cultural, or regional bias.

Geography Assessment Framework Elements

Cognitive Dimension	Content Dimension		
	Space and Place	**Environment and Society**	**Spatial Dynamics and Connections**
Knowing	Where is the world's largest tropical rain forest?	What mineral resources are often extracted by strip mining?	What factors stimulate human migrations?
Understanding	Why are tropical rain forests located near the equator?	Explain the effects of strip mining and shaft mining on the landscape.	Explain the motivations of modern-day Mexicans and Cubans for immigrating to the United States.
Applying*	Support the conclusion that tropical rain forests promote wide species variation.	How can both economic and environmental interests be reconciled in an area of strip mining?	Compare current settlement and employment patterns of Cuban and Mexican immigrants in the United States.

Note: Example questions are illustrative only, and are not meant to represent the full array of assessment content.
*Applying = A range of higher order thinking skills.

Eighth graders should be able to describe physical and cultural characteristics of places and explain how places change as a result of human activity; be able to explain and illustrate how the concept of regions can be used as a strategy for organizing and understanding Earth's surface; and use information from maps to describe the role regions play in influencing trade and migration patterns.

Twelfth graders should be able to discuss economic, political, and social factors that define space on Earth's surface; be able to relate the spatial distribution of population to economic and environmental factors; and, using maps and tools, be able to report both historical and contemporary events within a geographic framework.

Knowing and Doing

Students were asked to answer questions in three content areas: (1) *Space and Place*, (2) *Environment and Society*, and (3) *Spatial Dynamics and Connections*.

Space and Place relates to particular places on Earth, to spatial patterns on Earth's surface, and to physical and human processes that shape these patterns. Approximately 40 percent of the questions at all three grade levels are related to this content area.

Environment and Society focuses on relationships between the natural world (places, plants, and animals) and the people who inhabit those places. Approximately 30 percent of the questions are related to this content area.

Spatial Dynamics and Connections looks at growing networks and changing connections among people, places, and regions. Approximately 30 percent of questions are related to this content area.

Thinking Skills

The three content areas were measured by an analysis of student thinking skills defined as *Knowing*, *Understanding*, and *Applying*. All students will be able to demonstrate their thinking abilities as they work with content that is appropriate to their grade levels.

Knowing asks: What is it? Where is it? This thinking skill relates to observing and recalling information.

Understanding asks: Why is it there? How did it get there? What is its significance? In this thinking area, students can attribute meaning to what they have observed and explain an event in their own words.

Applying asks: How can knowledge and understanding be used

to solve geographic problems? This involves a range of higher order thinking skills such as classifying, hypothesizing, using inductive and deductive reasoning, and forming problem-solving models.

Balanced coverage of the subject. The 1994 NAEP Geography Assessment builds on the physical/natural science aspects of geography as well as its traditional social science aspects. Emphasis is placed on current and potential future issues.

Interesting and compelling topics. Care has been taken to make certain the material relates to students' experiences and concerns. Students in the NAEP sample should find the questions engaging and fun.

Initial baseline to measure future progress. In 1994, geography was assessed for the first time at NAEP's three grade levels—4, 8, and 12. NAEP's only previous assessment of the subject—a probe of geography learning of 12th graders—occurred in 1988.

Score reporting. Scores on this first trigrade level nationwide geography assessment will be reported in 1995, the midpoint of the National Education Goals calendar.

Innovative questions. Approximately 50 percent of the testing time consists of *constructed response items* requiring short written answers or longer paragraphs and *production exercises* requiring creation of maps and graphs. Some 8th and 12th graders were required to explore a single topic in depth. About half of the testing time was spent on multiple choice questions designed to measure a range of geographic knowledge and skills.

New materials. Many students worked with atlases to answer particular questions.

Preparing Citizens for the 21st Century—Geography: Learning About Our World is just one in a series of brochures that describes NAEP assessments. Other titles in this series include *Looking at How Well Our Students Read: Measuring Essential Learning in Science; Assessing Mathematics—Achieving Goals;* and *Key Themes and Questions in U.S. History.* For further information on any of these publications, contact:

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