This booklet provides practical learning activities for parents to use in teaching geography to children under the age of 10. The handbook is organized around the five major themes of geography: (1) physical location; (2) physical and human characteristics of places; (3) relationships among people and places; (4) patterns of movement of people, products, and information; and (5) formation and change of regions. These themes are articulated in a wide variety of activities designed for parent/child participation. These activities include map making and map reading, individual field trips, craft activities, and weather watching. By using these activities parents can connect everyday learning experiences in the home and neighborhood to the curriculum in school. They also can direct the natural curiosity of children toward questions and knowledge in geography. In addition, this profusely illustrated handbook contains a glossary of geographic terms and lists of sources for acquiring free or inexpensive materials. A suggested reading list is provided, as well as, Internet resource addresses, and recommended computer software. (MJP)
Helping Your Child Learn Geography
Helping Your Child Learn Geography

with activities for children from 5 to 10 years of age

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Foreword

By the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation’s modern economy.

A lot has happened in the study of geography since 1990 when the Office of Educational Research and Improvement first released Helping Your Child Learn Geography.

With the passage of the GOALS 2000: Educate America Act in 1994, geography was officially recognized as a core curriculum subject in American schools.

Also in 1994, the United States saw the release of standards for teaching geography to students K-12. Developed collaboratively by educators, parents, scientists, and others, the geography standards identify what American children should learn in grades 4, 8, and 12. Many states now use these standards as guidelines for developing their own curricula. Progress has also been made on the closely related matter of measuring what students have learned. In 1994, the National Assessment of Educational Progress (NAEP) conducted the first full-scale assessment of what America's students know and can do in geography at grades 4, 8, and 12. The first “Geography Report Card,” released this spring, confirms that children whose families are involved in and supportive of their studies perform better.

However, the most dramatic changes affecting geography education in the past six years are changes in the world itself. Many countries no longer have the same borders or names as they did in 1990. The Earth continues to become more crowded, the global economy more competitive, precious natural resources more scarce, and the environment more threatened. With instant, inexpensive communications, we are more closely connected than ever before to people all over the world.

In recent years, new immigrants have come to our country in unprecedented numbers. Children of every color and culture, speaking many different languages, fill our classrooms. In some states, student populations are no longer characterized by a single dominant ethnic group, and this will be true of our entire nation by the middle of the next century.

How can geography help us communicate and successfully face the challenges of our time? Geography is the science of space and place on Earth's surface. We human beings are constantly interacting with the Earth—the Earth shapes our lives just we shape the face of the Earth. Studying geography enables us to better see and understand our own home and culture and our relationships to other cultures and environments. Clear vision and understanding form a basis for nearly any kind of communication and constructive action.

So, we are pleased to update and reprint Helping Your Child Learn Geography. From creating treasure maps to helping children find pen pals, the book still offers many simple, fun activities to teach youngsters the fundamentals of geography. We've given the book a new look. We've added a checklist from the standards called “What Does Your Fourth Grader Know?” And, we've updated the resources, adding materials on the standards, as well as some software and Web sites.

A lot has changed in the study of geography since 1990. But a lot remains the same. Parents are still a child's first and ongoing teachers. When you talk with your children about world events or vacation plans and you turn to an atlas or a map, you teach them a great deal. Not only do you help them learn how to use maps, but over time, you help them form their own mental map of the world. They can then better organize and understand information about other people and events. Or, as the GOALS 2000: Educate America Act states, they can learn to use their minds well.

This learning process can be fun. We hope you and your children will enjoy the games, maps, and suggested activities that follow. While simple and fun, these ideas can be used to help youngsters develop a basic understanding of geography that will aid them in their school studies.

Sharon P. Robinson
Assistant Secretary for Educational Research and Improvement
Introduction

Children are playing in the sand. They make roads for cars. One builds a castle where a doll can live. Another scoops out a hole, uses the dirt to make a hill, and pours some water in the hole to make a lake. Sticks become bridges and trees. The children name the streets and may even use a watering can to make rain.

Although they don't know it, these children are learning the principles of geography. They are seeing how people interact with the Earth, manipulating the environment, learning how climate changes the character of a place, and looking at how places relate to each other through the movement of things from one place to another.

With this book, we hope you, as parents, will get ideas for activities that will use your children's play to help them learn more geography—the study of the Earth. Most of the suggestions in this book are geared to children from 5 to 10 years of age. Keep in mind, however, that youngsters vary widely in their development, and others—younger and older—may find the activities appropriate.

The activities and games are organized around five specific themes* that help focus our thinking:

1. Where are things located?
2. What characteristics make a place special?
3. What are relationships among people and places?
4. What are the patterns of movement of people, products, and information?
5. How can the Earth be divided into regions for study?

Each chapter begins with some background and examples of questions that geographers use as they strive to understand the Earth. This is followed by activities to help children learn key ideas.

*These five themes were developed by the Committee on Geographic Information of the National Council for Geographic Education and the Association of American Geographers. They are consistent with the standards for teaching geography to students K-12, released in 1994. For references, see page 28.
Look at a map or globe. Where are places located? Every place has a “global address” that tells exactly where in the world it’s located, just as your home has a street address. There are two numbers in a global address—a number for latitude and one for longitude. If you know these numbers and how to use them, you can find any place in the world and give its absolute location. (For definitions, see the glossary at the end of this booklet.)
Why are things located in particular places and how do these places influence our lives? Location can describe how one place relates to another. For example, the Panama Canal was cut across an extremely narrow strip of land in Central America. It provides a shipping lane between the Atlantic and Pacific Oceans, eliminating the need for long, dangerous journeys around South America.
Activities

Learning Direction

• To help young children learn location, make sure they know the name of their town and their street address, and that they can describe the building and neighborhood in which they live. Then, when you talk about other places, they have something of their own with which to compare.

• Children need to understand positional words. Teach children words like “above” and “below” in a natural way when you talk with them or give them directions. When picking up toys to put away, say, “Please put your toy into the basket on the “right,” or “Put the green washcloth into the drawer.” Right and left are as much directional terms as north, south, east, and west. Other words that describe such features as color, size, and shape are also important.

• Show your children north, south, east, and west by using your home as a reference point. Perhaps you can see the sun rising in the morning through a bedroom window that faces east and setting at night through a kitchen window on the west.

• Playing games can reinforce their knowledge. For example, once children have their directional bearings, you can hide an object, then give them directions to its location: “Two steps to the north, three steps west...”
More Activities

Get the Map Habit

Put your child's natural curiosity to work. Even small children can learn to read simple maps of their school, neighborhood, and community. Here are some simple map activities you can do with your children.

- Go on a walk and collect natural materials such as acorns and leaves to use for an art project. Map the location where you found those items.

- Create a treasure map for children to find hidden treats in the yard or inside your home (a fun idea for birthday parties). Also, encourage children to play this game with one another—hiding the “treasure” and drawing the map. Or, some rainy day, suggest they draw imaginary treasure maps just for fun.

- See if you can find your street on a town or city map. Point out where your relatives or your children's best friends live.

- Find the nearest park, lake, mountain, or other cultural or physical feature on a map. Then, talk about how these features affect your child's life. Living near the ocean may make your climate moderate and bring tourists to the area. Mountains may block some weather fronts and offer recreational opportunities, such as camping and hiking.

- Point out different kinds of maps to your children—such as a state highway map, a city or town map, a bus route map or shopping mall map—and discuss their different uses. Also, check the back of this booklet (pages 26–27) for samples of three different types of maps of the same place—Salt Lake City, Utah. Shown are a shaded relief map, a road map, and a topographic map.
More Activities

• Before taking a trip, show your children a map of where you are going and how you plan to get there. Look for other routes you could take and talk about why you chose the one you did. Maybe they can follow the map as you travel; for example, when you get to one town, ask them to tell you the next.

• Encourage your children to make their own maps using legends (keys to what the pictures or symbols in a map mean; see examples on pages 12 and 22). They can draw fanciful maps of places or journeys they have read about. Older children might draw a layout of their neighborhood.

• Keep a globe or a world map near the television and use it to locate places talked about on television programs, or use a U.S. map to follow the travels of your favorite sports team.

• Look at a map of your state, such as this one of New Hampshire. Look at the numbers at the bottom and the letters at the right and imagine lines extended that divide the map into a grid. Locate Manchester in grid F–3. Use the scale to measure the straight-line distance between Manchester and Mount Washington.

• On a globe or world map (see pages 2–3), ask your child to point with a finger to the North Pole, South Pole, and the Equator. Ask which is the Western Hemisphere, the Eastern Hemisphere, and in which one do we live. Find the lines running from the North Pole to the South Pole and identify them as lines of longitude. Find the lines that run parallel to the Equator—lines of latitude. Are the lines numbered? Talk about what these lines mean. Try to figure out roughly the degrees of longitude and latitude for where you live—your global address.
More Activities

Location Is Everything!

Children use all of their senses to learn about the world. Objects that they can touch, see, smell, taste, and hear help them understand the link between a model (such as a map) and the real thing.

- Put together puzzles of the United States or the world. By touching and looking at the puzzle pieces, they can better understand where one place is located in relation to others.

- Use pictures from books and magazines to help your children associate geographic terms with visual images. A picture of a desert can stimulate conversation about the features of a desert—dry and barren. Talk about many different places and imagine what it would be like to visit them.

- Make a three-dimensional map of your home or neighborhood using milk cartons for buildings. Draw a map of the block on a piece of cardboard, then cut up the cartons (or any other three-dimensional item) and use them to represent buildings. Use bottle tops or smaller boxes to add interest to the map, but try to keep the scale relationships fairly accurate (e.g., 2 feet on the map equals 1 city block).

- Use popular board games like "Game of the States" or "Trip Around the World" to teach your children about location, commerce, transportation, and the relationships among different countries and areas of the world. Some of these games may be available at public libraries.
More Activities

- Make a globe out of papier-mâché using strips of old newspaper and a paste made from flour and water. In doing this, children will better understand the differences between a flat map and a globe.

Directions

Make the paste by mixing 1 part flour with 2 parts water. Tear newspaper strips about 1 inch wide and 3 inches long. Blow up a balloon and tie it. Dip the strips into the paste and wrap the balloon as smoothly as possible with one layer of the papier-mâché strips. Then wrap it again with three more layers; at this stage, try using the papier-mâché to make models of mountains and valleys. Let the wrapped balloon dry for at least 24 hours. Then, using poster or tempera paints, paint the continents and oceans.
Place: Physical and Human Characteristics

Every place has a personality. And, just like people, places may have a lot in common, but no two are exactly alike.

What makes a place special? What are the physical and human characteristics of your hometown? Is the soil sandy or rocky? Is the temperature warm or is it cold? Did important historical events occur there? Is it near a river or lake? What physical characteristics are most important or unique?

What about the people? How are they affected by the characteristics of place? Their language, style of government, architecture, industries—all define the special character of a place.

Activities

There’s No Place Like Home

- Walk around your neighborhood and look at what makes it unique. Point out how it is similar to other places you have been and how it is different. Talk about what animals and plants live in your neighborhood. Look at the buildings and discuss their uses. Are there features designed to meet weather conditions, such as window shutters or sun rooms? Do the shapes of some buildings tell us how they were used in the past or how they are used now?
More Activities

- If you live near a park, a lake, a river, a stream or a creek, take your children there and spend time talking about its uses. If you live near an historical site, visit it and talk about what happened there and why it’s important. Look for other points of interest in your town and learn more about them.

Faraway Places

- Read stories and books about distant places with your children. Many children’s books provide vivid images of different places and a sense of what it would be like to live in them. A Country Far Away, Heidi, and Going for Oysters are examples of books about other parts of the world that have inspired many young readers. There is a list of resources at the end of this booklet, and your librarian will have additional suggestions.

- Use songs to teach geography. “Home on the Range,” “California, Here I Come,” and “This Land Is Your Land” are all songs about place. Teach your children folk songs of different countries like “La Cucaracha,” “London Bridge,” and “Dreidel, Dreidel, Dreidel.”

- With your children, see a movie or video which is set in a different land such as “The Lion King,” “Treasure Island,” or “A Little Princess.”

- Talk with your children about the places these books, songs, and movies celebrate, find them on a map or globe, and discuss their mental picture of these places.
More Activities

What's the Climate Like?

Climate very much affects the character of a place. The amount of sun or rain, heat or cold, the direction and strength of the wind, all determine such things as how people dress, how well crops grow, and the extent to which people will want to live in a particular spot. Join your children in observing weather conditions.

- Watch the weather forecast on television or read the weather map in the newspaper. Save the maps for a month or more. You can see changes over time and compare conditions over several weeks and seasons. Reading the weather map helps children observe changes in the local climate.

- Use a weather map to look up the temperatures of cities around the world and discover how hot each gets in the summer and how cold each gets in the winter. Compare these figures with your town. Ask your children if they can think of reasons why different locations have different temperatures. Many children enjoy finding the place that is the hottest or the coldest.

- Make simple weather-related devices such as barometers, pinwheels, and wind chimes (check at your local public library for how-to books of experiments). Watch cloud formations and make weather forecasts for your hometown.
Relationships Within Places: Humans and Environments

How do people adjust to their environment? What are the relationships among people and places? How do they change the environment to better suit their needs? Geographers examine where people live, why they settled there, and how they use natural resources. For example, Hudson Bay, the site of the first European settlement in Canada, is an area rich in wildlife and has sustained a trading and fur trapping industry for hundreds of years. Yet the climate there was described by early settlers as “nine months of ice followed by three months of mosquitoes.” The Hudson Bay settlement is one of many examples of how people can and do adapt to their natural surroundings.

Activities

Notice How You Control Your Surroundings

Everyone controls his or her surroundings. Look at the way you arrange furniture in your home. You place tables and chairs in places that suit the shape of the room and the position of windows and doors. You also arrange the room according to how people use it.

- Make paper cutouts of furniture and arrange them on a map representing your home (graph paper works well for such a map). By cutting out paper to represent different pieces of furniture, children can begin to learn the mapmaker’s skill in representing the three-dimensional real world.
More Activities

• Ask your children to consider what the yard might look like if you did not try to change it by mowing grass, raking leaves, or planting shrubs or trees. You might add a window box if you don't have a yard. What would happen if you didn’t water the plants?

• Walk with your children around your neighborhood or a park area and help them clean up litter. Talk about different kinds of waste disposal (e.g., landfills, dumps, recycling) and how they affect the environment.

• Take your children to see some examples of how people have shaped their environment: bonsai gardens, reservoirs, terracing, or houses built into hills. Be sure to talk with them about how and why people create such things.

• If you live in an urban area, try to visit a nearby farm. Some cities and states maintain farm parks for just this purpose. Call the department of parks or recreation in your area to find out where there is one near you. Talk with your children about how farmers use natural resources—soil, water, and sun—to grow crops and raise livestock. How do they keep livestock from wandering off? How do they prevent crops from being eaten by birds or destroyed by disease?

Notice How You Adapt to Your Surroundings

People don’t always change their environment. Frequently, the environment changes the course of people's lives. For instance, a straight line may be the shortest distance between two points; but people don't build highways straight over mountains—they must go
More Activities

around them or build tunnels that go through them. People construct storm walls to keep the ocean from sweeping over beaches. In some coastal areas, residents build their houses on stilts to protect them from storm tides or periodic floods.

• Go camping with your children. It is easy to understand why we wear long pants and shoes when there are rocks and branches on the ground. And, when you no longer have the convenience of a faucet, it is clear why early settlers found it so important to be near water.

• If you go to a park, try to attend the nature shows that many parks provide. You and your children may learn about the local plants and wildlife and how the natural features have changed over time. You may also learn how people need to be careful around certain plants and animals in the wild.
Movement: People Interacting on the Earth

People are scattered unevenly over the Earth. How do they get from one place to another? What are the patterns of movement of people, products, and information? Regardless of where we live, we rely upon each other for goods, services, and information. In fact, most people interact with other places almost every day. We depend on other places for much of our food, clothes, and even items like the pencils and paper our children use in school. We also share information with each other using many methods of communication—telephones, computers, books, newspapers, radio, and television—to bridge the distances.

Activities

Different Ways To Travel

• Give your children opportunities to travel by car, bus, bicycle, or on foot. When possible, take other forms of transportation such as trains, subways, airplanes, ferries, barges, and horses and carriages.

• Use a map to look at various routes you can take when you use different methods of transportation.

• Watch travel shows on television.
Follow the Movement of People and Things

- Play the license plate game. How many different states can you identify by looking at the plates, and what does the license plate tell you about each state? You don't have to be in a car to play. You can look at the license plates of parked cars. Suggest your children keep a record of the states whose plates they have seen. They can color in those states on a map and illustrate them with characteristics described on the license plates. Some states have county names on their plates. If you live in one of these states, your children may want to keep track of the different counties.

- Go around your house and look at where different things come from. Examine the labels of the clothes you wear. Talk about where your food comes from. Why do bananas come from Central America? Why does the milk come from the local dairy? Perhaps your climate is too cold for growing bananas, and the milk is too perishable to travel far. How did the food get to your house?

- Tell your children where your ancestors came from. Find your family's countries of origin, and chart the birthplaces of relatives on a map. You can plot the routes they followed before arriving at their present locations. Why did they leave their previous home? Where do all your relatives live now?
More Activities

- Have your children ask older relatives what their world was like when they were young. They can ask questions about transportation, heating and refrigeration, the foods they ate, the clothes they wore, and the schools they attended. Look at old pictures. How have things changed since Grandma was a child? Grandparents and great aunts and uncles are usually delighted to share their memories with the younger generation, and they can pass on a wealth of information.
More Activities

Follow the Movement of Ideas and Information

Ideas come from beyond our immediate surroundings. How do they get to us? Consider communication by telephone, letters, electronic mail, television, radio, telegrams, telefax, and even graffiti, posters, bumper stickers, and promotional buttons. They all convey information from one person or place to another.

- Watching television is a major way that many children receive ideas from the outside world. Look for programs that will stimulate their interest in the Earth—shows on wildlife, natural history, and science. Talk about what they’re watching and where it takes place.

- Ask your children how they would communicate with other people. Would they use the phone, post a letter, or use electronic mail? Encourage them to write letters to relatives and friends. They may be able to get pen pals through school or a pen pal association. (See listings on the inside back cover.)

- Talk with your children about the Information Superhighway. Many schools now have computers in classrooms, and many households have personal computers. However, you don’t have to have a computer in your home to understand the idea of the Internet or the Information Superhighway. This global system connects millions of computers, just as roads connect towns and cities—only the connections are made via telephone lines, fiber optic cables, and microwave transmissions. Check at your local public library for interesting reading materials and, if possible, go on-line with your child. You may be able to get computer access through the library or your child’s school.
Regions: How They Form and Change

How can places be described or compared? How can the Earth be divided into regions for study?

A region is an area that includes a number of places—all of which have something in common. Geographers categorize regions in two basic ways: physical and cultural. Physical regions are defined by landform (continents and mountain ranges), climate, soil, and natural vegetation. Cultural regions are distinguished by such traits as language, politics, religion, economics, and industry.

Activities

Examine Physical Regions

- Talk with your children about the difference between a region and a place, using the illustration below and other maps you might find helpful. Discuss the fact that regions vary in size. They can be as small as the neighborhood or as big as a territory that stretches for thousands of miles.
More Activities

- Examine areas in your home. Is there an upstairs and a downstairs? Is there an eating area and a sleeping area? How are they like regions? Are there other “regions” in your home that can be described?

- Look at the physical region where you live. Some neighborhoods grew up around woods, hills, and valleys. Others developed around rivers, lakes, or oceans. What are the reasons your neighborhood was founded where it is?

Examine Cultural Regions

- Visit libraries and museums. They have a wealth of books, magazines, and exhibits for children on other cultures and may present plays, movies, and puppet shows about people from different countries. Museums often have floor plans such as this one.
More Activities

• Go on outings to different ethnic neighborhoods, as well as to multicultural events at the school or in the community. Also, visit the different residential, recreational, commercial regions of your city.

• Encourage your children to try foods from different countries whenever you go to multicultural events. Also, make different ethnic foods at home. Talk about what ingredients are characteristic of a particular area and why people eat different foods. For example, why do the Japanese eat so much seafood? Why is corn often used in Mexican dishes?

• Compare coins and stamps from other lands. They often contain information about the country. You may be able to find stamps from other countries where you work, or your children may get them from pen pals. Stamps tell a great deal about a country—from its political leadership to native bird life.

• Learn simple words in different languages. Teach your children to count to 10 in other languages. They can also learn simple words like “hello,” “goodbye,” and “thank you.” Look at the different alphabets or script from various regions. All these activities expose children to the abundance of the Earth’s cultural treasures. Many libraries have language tapes, books, and software—some especially for children.

• If you have friends who are from different countries or have either traveled or lived abroad, invite them over to talk with your children. If they have pictures, so much the better. What languages do they speak? How are their customs or dress similar to or different from yours?
• Make geography fun by tying it to ethnic holiday themes. Have your children dress up in regional or ethnic clothes. Some museums and libraries provide clothes children can borrow. Holidays are an opportunity to learn about the customs of people around the world. You can use the library to discover how other people celebrate special days.
Conclusion

Geography is a way of thinking, of asking questions, of observing and appreciating the Earth. Geography gives us the tools we need to move about in the world, to make wise decisions about our environment, and to relate more meaningfully to people from other lands and cultures. You can help your children learn by offering them interesting activities and by encouraging them to ask questions about their surroundings.

How you talk about and relate to the world is important to your children. Help your children build correct mental images by using the right geographic terms. For instance, say, “We’re going north to Maine to visit Grandma,” or “west to California to see Uncle John,” rather than “up to Maine,” or “out to California.” Use words such as desert, peninsula, boundaries, and continent and talk about what these terms mean. Many words used in geography are everyday words. But, like any other field of learning, geography has a vocabulary of its own. (See the glossary.)

Turn to maps in the course of your life—as you plan outings and trips, watch television shows, read stories together, or discuss the news. Children who grow up around maps and atlases are more likely to get the “map habit” than those who don’t. So, get a good atlas, as well as a dictionary. Check at public library used-book sales or at yard sales for good buys. You can often get maps at little or no cost. (See the list of Free and Inexpensive Materials in the back of this booklet.)

The activities suggested are only a few examples of the many ways you can bring geographic thinking into your child’s early experiences. We hope your family has fun doing them and develops many more activities of its own. Such simple, enjoyable activities can stimulate children’s interest in geography and give them a basic understanding that lays the foundation for study in school.
You could use the shaded relief map to find the locations of cities and towns. But, most important, it shows the shape of the land—mountains, valleys, rivers, and lakes. Using the legend for this map, you can also find out which towns are the largest and which are the smallest.

Road maps show people how they can travel from one place to another. They show some physical features, such as mountains and rivers, and political features, such as cities and towns. A road map also shows you which are the local roads and which are the main highways.
This **topographic map** shows a small area of Salt Lake City. Topographic maps use contour lines to show elevation (height above sea level). Contour lines join points of equal elevation above a specified reference, such as sea level. Think of a contour line as an imaginary line on the ground that takes any path necessary to maintain constant elevation. Using the legend for this map, you can locate schools and churches. People frequently use topographic maps when hiking. Builders use topographic maps to figure out where to put buildings and roads. There's a topographic map like this for every part of the United States, including one for where you live.

*Maps and text adapted from teacher packet “What Do Maps Show?” published by the U.S. Geological Survey. To order, call 1-800-USA-MAPS.*
References


What Does Your Fourth-Grader Know?

CAN YOUR CHILD

◆ Give clear and precise verbal directions to you describing a route between home and school?

◆ Describe the purpose of latitude and longitude and, using a world map or globe, identify the absolute location of specific places (e.g., Chicago, Illinois, or the Cape of Good Hope)?

◆ Locate the seven continents and four oceans on a world map, and point to and identify several countries in South America, Europe, Africa, and Asia?

◆ Describe the relative location of your local community in terms of its situation in your state and region (e.g., My town is halfway between the state capital and largest city in the state. My state is in the south-central part of the United States.)?

◆ Measure the straight-line distance between two places on an interstate highway map using the bar scale?

◆ Locate specific physical features on a map of North America (e.g., the Ozark Plateau, the Central Valley of California, the Susquehanna River, and Lake Okeechobee)?

◆ Locate specific human features on a map of North America (e.g., the corn belt, New England, the capital of the United States, and where the Declaration of Independence was signed)?

◆ Cite specific examples from anywhere in the world to illustrate environmental issues (e.g., deforestation and air and water pollution)?

◆ Explain how the local physical environment has affected the way people live in your community (e.g., how it has influenced choices of building materials, housing styles, and types of flowers and vegetables grown)?

◆ Find an answer to a geographic question using an encyclopedia, world atlas, gazetteer, computer database, or other library resources (e.g., identify the five largest cities in your state or the U.S. state that has the most tornadoes per year)?

◆ Tell a story about what it is like to travel or to live in another region of the country or world?

◆ Take you for a walk in a familiar environment and describe some of the physical and human features of the landscape?

◆ Describe, in her or his own words, what geography is about?

Glossary

absolute location
The location of a point on the Earth's surface that can be expressed by a grid reference such as latitude and longitude.

altitude
Height of an object in the atmosphere above sea level.

atlas
A bound collection of maps.

boundary
A line indicating the limit of a country, state, or other political jurisdiction.

cartographer
A person who draws or makes maps or charts.

continent
One of the large, continuous areas of the Earth into which the land surface is divided.

degree
A unit of angular measure: A circle is divided into 360 degrees, represented by the symbol°. Degrees are used to divide the roughly spherical shape of the Earth for geographic and cartographic purposes.

elevation
The height of a point on the Earth's surface above sea level.

Equator
An imaginary circle around the Earth halfway between the North Pole and the South Pole; the largest circumference of the Earth.

globe
A true-to-scale map of the Earth that duplicates its round shape and correctly represents areas, relative size and shape of physical features, distances, and directions.

grid
A pattern of lines on a chart or map, such as those representing latitude and longitude, which helps determine absolute location.

hemisphere
Half of the Earth, usually conceived as resulting from the division of the globe into two equal parts—north and south or east and west.

international date line
A line of longitude generally 180° east and west of the prime meridian. The date is one day earlier to the east of the line.

latitude
Imaginary lines that cross the surface of the Earth parallel to the Equator, measuring how far north or south of the Equator a place is located.

longitude
Imaginary lines that cross the surface of the Earth, running from north to south, measuring how far east or west of the prime meridian a place is located.

map
A picture of a place that is usually drawn to scale on a flat surface.

ocean
The salt water surrounding the great land masses, and divided by the land masses into several distinct portions, each of which is called an ocean.

prime meridian
An imaginary line running from north to south through Greenwich, England, used as the reference point for longitude.

scale
The proportional relationship between a linear measurement on a map and the distance it represents on the Earth's surface.

sea level
The ocean surface.

topography
The physical features of a place; or the study and depiction of physical features, including terrain relief.

legend
A key to what the symbols or pictures in a map mean.

Glossary, in part, courtesy of Hammond, Incorporated.
Suggested Reading

For Younger Readers

Adams, Jeanie. *Going for Oysters.* An Australian Aboriginal family going after oysters almost forgets Grandad’s warning about avoiding the eastern swamp.

Brusca, Maria Cristina. *My Mama’s Little Ranch on the Pampas.* The author recalls the first year she spent as a child on a ranch in Argentina.

Goble, Paul. *The Gift of the Sacred Dog and The Girl Who Loved Wild Horses.* These stories, accompanied by beautiful pictures, are based on legends of the Native Americans.

Gray, Nigel. *A Country Far Away.* The similarities in the lives of two boys, one in an African village and one in a western country, are depicted in words and pictures.

Hartman, Gail. *As the Crow Flies: A First Book of Maps.* The views of an eagle, rabbit, crow, horse, and gull are combined to make a map.

Priceman, Marjorie. *How To Make an Apple Pie and See the World.* Because the local market is closed, a young girl travels around the world to gather ingredients to make an apple pie.


Spier, Peter. *People.* Explores the enormous diversity of the world’s population. Looks at various cultures, homes, foods, games, clothing, faces, and religions.

Williams, Vera. *Stringbean’s Trip to the Shining Sea.* When Stringbean goes on a trip to the west coast with his friend Fred, he sends photos and postcards to his family.

For Older Readers


DuBois, William Pene. *The Twenty-one Balloons.* In the fall of 1893, Professor William Waterbury Sherman sets forth from San Francisco on a balloon expedition around the world.

Maestro, Betsy. *Coming to America.* In brief text and colorful pictures, the author explores how immigrants from many lands have made America what it is.

O’Dell, Scott. *Sing Down the Moon.* Slavers and Spanish soldiers bring devastating changes to the life of a young Navaho girl.

Sperry, Armstrong. *Call It Courage.* A Polynesian boy, along with his dog and albatross, sets out in a canoe determined to conquer his fear of the sea.

Spyri, Johanna. *Heidi.* Story of a young girl who goes to live with her grandfather in the Swiss Alps. She is then taken by her aunt to live in the city and struggles to return to her grandfather.


Atlases and Informational Guides


Computer Software and CD-ROMS

Games

*Carmen Sandiego Junior Detective Edition* (grades preK-3) and *Where in the World is Carmen Sandiego?* (grades 4-12) Travel the world in search of Carmen, with clues based on different geographical features of her journey. Available from Broderbund Software, Novato, CA. Call 1-800-521-6263.

*GeoMedia* (grades 4-9) A multimedia tour of the earth via CD-ROM; developed in cooperation with the U.S. Geological Survey. Write: InterNetwork Media, Inc., 411 Seventh Street, Del Mar, CA 92014, telephone: 619-481-8181.

*GeoSafari* (ages 8 and up) CD-ROM with questions on geography, history, and science. Contains still pictures and video. Call Rand McNally, Chicago, IL, on 1-800-234-0679 or 312-321-1751.

*Picture Puzzle* (for all ages) Ten National Geographic photographs that can be broken into pieces in any variety of ways and put back together; and *ZipZapMap*! (grades 4-adult) Challenges players to place on a map different geographic “pieces” as they fall from the top of the computer screen. *Picture Puzzle* and *ZipZapMap*! are available from the National Geographic Society, 1145 Seventeenth Street, NW, Washington, DC 20036-4688; 1-800-368-2728.


Atlases

*Cartopedia* (ages 9 and up) Over 7,000 pop-up windows present detailed overviews of every country, as well as specific, up-to-date information on such topics as populations, natural resources, and climate. Includes photographs and video sequences. Published by DK Multimedia; order through Houghton Mifflin on 1-800-225-3362.

*Children’s World Atlas* (ages 6 and up) Includes video clips, photographs, and still pictures and descriptions of the world’s cities, industries, and landmarks. Game format. Call Rand McNally, Chicago, IL, 1-800-234-0679 or 312-321-1751.

Products listed above are compatible with IBM and Macintosh, unless stated otherwise.

Internet Resources

Federal

NASA’s Mission to Planet Earth
http://www.hq.nasa.gov/office/mtpe

National Museum of Natural History, Smithsonian Institution
http://www.nmnh.si.edu

National Park Service
http://www.nps.gov

National Weather Service
http://www.nws.noaa.gov

U.S. Department of Education
http://www.ed.gov

U.S. Fish and Wildlife Service
http://www.fws.gov

U.S. Geological Survey Learning Web
http://www.usgs.gov/education

Other

Houghton Mifflin Social Studies Center

Kids Web-Geography
http://www.infomall.org/kidsweb/geography.html

Mapquest
http://www.mapquest.com

National Geographic Society
http://www.nationalgeographic.com

USA Today Weather Page
http://www.usatoday.com/weather/wteach.htm
Free or Inexpensive Materials

Maps

Below are suggestions on where to go for free maps. If you need help finding a telephone number or address, check at the reference section of your local public library.

- Many states have maps and information kits available free through their departments of tourism, which often have toll-free numbers.
- A number of foreign countries have tourist agencies (also at toll-free numbers) that will furnish free maps and other materials upon request.
- Look in the front of your telephone directory for local maps.
- Local transit authorities usually provide free maps of public transportation routes (e.g. by bus or subway). Often, public libraries distribute such maps as a community service.

The federal government has hundreds of maps available. The U.S. Government Printing Office (GPO) handles the printing and sale of items produced by federal agencies. For a listing of maps for sale by GPO, contact the GPO bookstore in your area or the Superintendent of Documents, GPO, Washington DC 20402 (phone: 202-512-1800). In addition, some agencies may furnish maps directly upon request.

- Maps from the U.S. Geological Survey, the federal government's civilian mapmaking agency, cover a wide range of areas around the world. Included are free teacher packets: Map Adventures (K-3) and What Do Maps Show? (upper elementary and middle school). For more information, call 1-800-USA-MAPS.
- Maps of more than 300 parks, scenic trails, battlefields, and historic sites under the care of the National Park Service. Contact the particular site or, if you want a single map, write to the U.S. Department of the Interior, PO Box 37127, Washington, DC 20013-7127.
- A map of the United States showing the U.S. Wildlife Refuges. Write to the U.S. Fish and Wildlife Service, Division of Refuges, 18th & C Streets NW, Washington, DC 20240. Or call 1-800-344-WILD.
- Maps of water recreation areas from the Army Corps of Engineers. Write to the U.S. Army Corps of Engineers Depot, 2803 52nd Avenue, Hyattsville, MD 20781-1102 (phone: 301-394-0081).
- A wide selection of material is available from the National Aeronautics and Space Administration (NASA). Write to NASA, Code FEO-2, Washington, DC 20546-0001, to request Understanding Our Changing Planet: NASA's Mission to Planet Earth and Catalog of Education Programs and Resources.

Magazines for Children

Look for these magazines in your school or library or if you can go on-line:

- Discover, produced by Family Media, Incorporated;
- Ranger Rick and Your Big Backyard, published by the National Wildlife Federation; and
- World, published by the National Geographic Society.

Pen Pal Organizations

National Geographic Society
Dept. GeoMail Pen Pal Network
20 Academy Street
Norwalk, CT 06852-7100

Worldwide Friendship International
3749 Brice Run Road, Suite A
Randallstown, MD 21133
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