SECTION



TEKS 3B, 21B, 21C, 22A, 22D

What You Will Learn...

Main Ideas

- 1. Geography is the study of the world, its people, and the landscapes they create.
- 2. Geographers look at the world in many different ways.
- 3. Maps and other tools help geographers study the planet.

The Big Idea

The study of geography and the use of geographic tools helps us view the world in new ways.

Key Terms

geography, p. 4 landscape, p. 4 social science, p. 5 region, p. 6 map, p. 8 globe, p. 8



Use the graphic organizer online to record details about geography and what geographers do.

Studying Geography

If YOU lived there...

You have just moved to Miami, Florida, from your old home in Pennsylvania. Everything seems very different—from the weather and the trees to the way people dress and talk. Even the streets and buildings look different. One day you get an e-mail from a friend at your old school. "What's it like living there?" he asks.

How will you describe your new home?

BUILDING BACKGROUND Often, when you are telling someone about a place they have never been, what you are describing is the place's geography. What the place looks like, what kind of weather it has, and how people live there are all parts of its geography.

What Is Geography?

Think about the place where you live. What does the land look like? Are there tall mountains nearby, or is the land so flat that you can see for miles? Is the ground covered with bright green grass and trees, or is the area part of a sandy desert?

Now think about the weather in your area. What is it like? Does it get really hot in the summer? Do you see snow every winter? How much does it rain? Do tornadoes ever strike?

Finally, think about the people who live in your town or city. Do they live mostly in apartments or houses? Do most people own cars, or do they get around town on buses or trains? What kinds of jobs do adults in your town have? Were most of the people you know born in your town, or did they move there?

The things that you have been thinking about are part of your area's geography. **Geography** is the study of the world, its people, and the landscapes they create. To a geographer, a place's landscape is all the human and physical features that make it unique. When they study the world's landscapes, geographers ask questions much like the ones you just asked yourself.

Geography as a Science

Many of the questions that geographers ask deal with how the world works. They want to know what causes mountains to form and what creates tornadoes. To answer questions like these, geographers have to think and act like scientists.

As scientists, geographers look at data, or information, that they gather about places. Gathering data can sometimes lead geographers to fascinating places. They might have to crawl deep into caves or climb tall mountains to make observations and take measurements. At other times, geographers study sets of images collected by satellites orbiting high above Earth.

However geographers gather their data, they have to study it carefully. Like other scientists, geographers must examine their findings in great detail before they can learn what all the information means.

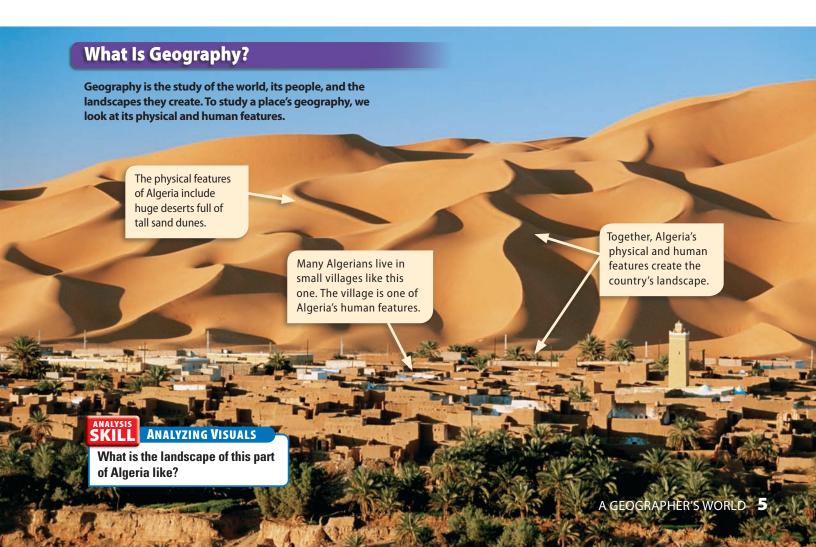
Geography as a Social Science

Not everything that geographers study can be measured in numbers, however. Some geographers study people and their lives. For example, they may ask why countries change their governments or why people in a place speak a certain language. This kind of information cannot be measured.

Because it deals with people and how they live, geography is sometimes called a social science. A **social science** is a field that studies people and the relationships among them.

The geographers who study people do not dig in caves or climb mountains. Instead, they visit places and talk to the people who live there. They want to learn about people's lives and communities.

READING CHECK Analyzing In what ways is geography both a science and a social science?



Looking at the World

Whether they study volcanoes and storms or people and cities, geographers have to look carefully at the world around them. To fully understand how the world works, geographers often look at places at three different levels.

Local Level

Some geographers study issues at a local level. They ask the same types of questions we asked at the beginning of this chapter: How do people in a town or community live? What is the local government like? How do the people who live there get around? What do they eat?

By asking these questions, geographers can figure out why people live and work the way they do. They can also help people improve their lives. For example, they can help town leaders figure out the best place to build new schools, shopping centers, or sports complexes. They can also help the people who live in the city or town plan for future changes.

Regional Level

Sometimes, though, geographers want to study a bigger chunk of the world. To do this, they divide the world into regions. A **region** is a part of the world that has one or more common features that distinguish it from surrounding areas.

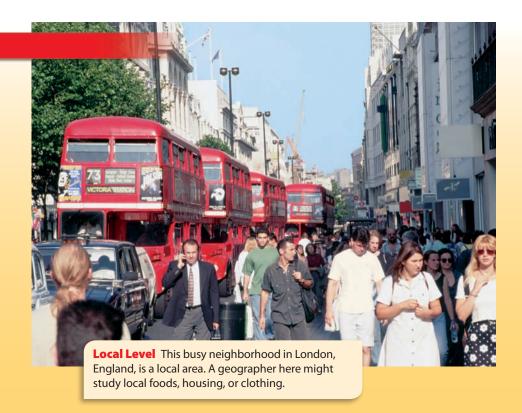
Some regions are defined by physical characteristics such as mountain ranges, climates, or plants native to the area. As a result, these types of regions are often easy to identify. The Rocky Mountains of the western United States, for example, make up a physical region. Another example of this kind of region is the Sahara, a huge desert in northern Africa.

Other regions may not be so easy to define, however. These regions are based on the human characteristics of a place, such as language, religion, or history. A place in which most people share these kinds of characteristics can also be seen as a region. For example, most people in Scandinavia, a region in northern Europe, speak similar languages and practice the same religion.

Looking at the World

Geographers look at the world at many levels. At each level, they ask different questions and discover different types of information. By putting information gathered at different levels together, geographers can better understand a place and its role in the world.

ANALYZING VISUALS Based on these photos, what are some questions a geographer might ask about London?



Regions come in all shapes and sizes. Some are small, like the neighborhood called Chinatown in San Francisco. Other regions are huge, like the Americas. This huge region includes two continents, North America and South America. The size of the area does not matter, as long as the area shares some characteristics. These shared characteristics define the region.

Geographers divide the world into regions for many reasons. The world is a huge place and home to billions of people. Studying so large an area can be extremely difficult. Dividing the world into regions makes it easier to study. A small area is much easier to examine than a large area.

Other geographers study regions to see how people interact with one another. For example, they may study a city such as London, England, to learn how the city's people govern themselves. Then they can compare what they learn about one region to what they learn about another region. In this way, they can learn more about life and landscapes in both places.

Global Level

Sometimes geographers do not want to study the world just at a regional level. Instead they want to learn how people interact globally, or around the world. To do so, geographers ask how events and ideas from one region of the world affect people in other regions. In other words, they study the world on a global level.

Geographers who study the world on a global level try to find relationships among people who live far apart. They may, for example, examine the products that a country exports to see how those products are used in other countries.

In recent decades, worldwide trade and communication have increased. As a result, we need to understand how our actions affect people around the world. Through their studies, geographers provide us with information that helps us figure out how to live in a rapidly changing world.

READING CHECK Finding Main Ideas At what levels do geographers study the world?





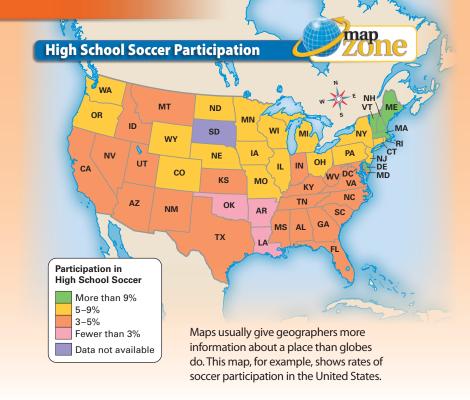
The Geographer's Tools

Geographers use many tools to study the world. Each tool provides part of the information a geographer needs to learn what a place is like.

ANALYZING VISUALS What information could you learn from each of these tools?



A geographer can use a globe to see where a place, such as the United States, is located.



The Geographer's Tools

Have you ever seen a carpenter building or repairing a house? If so, you know that builders need many tools to do their jobs correctly. In the same way, geographers need many tools to study the world.

Maps and Globes

The tools that geographers use most often in their work are maps and globes. A **map** is a flat drawing that shows all or part of Earth's surface. A **globe** is a spherical, or ball-shaped, model of the entire planet.

Both maps and globes show what the world looks like. They can show where mountains, deserts, and oceans are. They can also identify and describe the world's countries and major cities.

There are, however, major differences between maps and globes. Because a globe is spherical like Earth, it can show the world as it really is. A map, though, is flat. It is not possible to show a spherical area perfectly on a flat surface. To understand what this means, think about an orange. If you took the peel off of an orange, could you make it lie completely flat? No, you could not, unless you stretched or tore the peel first.

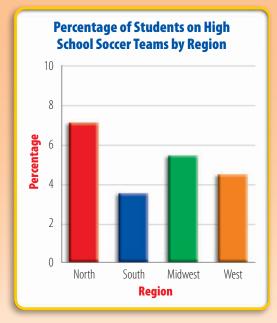
The same principle is true with maps. To draw Earth on a flat surface, people have to distort, or alter, some details. For example, places on a map might look to be farther apart than they really are, or their shapes or sizes might be changed slightly.

Still, maps have many advantages over globes. Flat maps are easier to work with than globes. Also, it is easier to show small areas like cities on maps than on globes.

In addition, maps usually show more information than globes. Because globes are more expensive to make, they do not usually show anything more than where places are and what features they have.

FOCUS ON READING

What do you already know about maps and globes?



Charts and graphs are also tools geographers can use to study information. They are often used when geographers want to compare numbers, such as the number of students who play soccer in each region of the country.

Maps, on the other hand, can show all sorts of information. Besides showing land use and cities, maps can include a great deal of information about a place. A map might show what languages people speak or where their ancestors came from. Maps like the one on the opposite page can even show how many students in an area play soccer.

Satellite Images

Maps and globes are not the only tools that geographers use in their work. As you have already read, many geographers study information gathered by satellites.

Much of the information gathered by these satellites is in the form of images. Geographers can study these images to see what an area looks like from above Earth. Satellites also collect information that we cannot see from the planet's surface. The information gathered by satellites helps geographers make accurate maps.

Other Geographic Tools

Geographers also use many other tools. To depict aspects of various countries and world regions geographers create maps, graphs, charts, databases, and models. They also use these tools to gather data and compare various world regions. In some cases, the best tools a geographer can use are a notebook and tape recorder to take notes while talking to people. Armed with the proper tools, geographers learn about the world's people and places.

READING CHECK Summarizing What are some of the geographer's basic tools?

SUMMARY AND PREVIEW Geography is the study of the world, its people, and its landscapes. In the next section, you will learn about two systems geographers use to organize their studies.

Section 1 Assessment



Reviewing Ideas, Terms, and Places

- 1. a. Define What is geography?
 - **b. Explain** Why is geography considered a science?
- **2. a. Identify** What is a **region**? Give two examples.
 - **b. Elaborate** What global issues do geographers study?
- 3. a. Describe How do geographers use satellite images? **b.** Compare and Contrast How are maps and globes similar? How are they different?

Critical Thinking

4. Summarizing Draw three ovals like the ones shown here. Use your notes to fill the ovals with information about geography, geographers, and their tools.



Focus on Writing

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5. Describing a Field Based on what you have learned, what might attract people to work in geography? In your notebook, list some details about geography that might make people interested in working in the field.