Name _____ Class _____ Date _____

# A Geographer's World

## Section 1

**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.

## Key Terms and Places

**geography** the study of the world, its people, and the landscapes they create

**landscape** the human and physical features that make a place unique

**social science** a field that studies people and the relationships among them

**region** a part of the world with one or more common features distinguishing it from surrounding areas

**map** a flat drawing that shows part of Earth's surface

**globe** a spherical model of the entire planet

## Section Summary

### WHAT IS GEOGRAPHY?

For every place on Earth, you can ask questions to learn about it: What does the land look like? What is the weather like? What are people's lives like? Asking questions like these is how you study geography. **Geography** is the study of the world, its people, and the **landscapes** they create.

Geographers (people who study geography) ask questions about how the world works. For example, they may ask why a place gets tornadoes. To find answers, they gather data by observing and measuring. In this way, geography is like science.

**Underline the sentence that states how geography is like science.**

Geography can also be like a social science. **Social science** studies people and how they relate to each other. This information cannot be measured in the same way. To study people, geographers may visit places and talk to the people about their lives.

## LOOKING AT THE WORLD

Geographers must look carefully at the world around them. Depending on what they want to learn, they look at the world at different levels.

Geographers may study at the local level, such as a city or town. They may ask why people live there, what work they do, and how they travel. They can help a town or city plan improvements.

Geographers may also study at the regional level. A **region** is an area with common features. A region may be big or small. Its features make it different from areas around it. The features may be physical (such as mountains) or human (such as language).

Sometimes geographers study at the global level. They study how people interact all over the world. Geographers can help us learn how people's actions affect other people and places. For example, they may ask how one region influences other regions.

**Circle the three levels that geographers study.**

## THE GEOGRAPHER'S TOOLS

Geographers need tools to do their work. Often, they use maps and globes. A **map** is a flat drawing that shows Earth's surface. A **globe** is a spherical (round) model of the whole planet.

Maps and globes both show what Earth looks like. Because a globe is round, it can show Earth as it really is. To show the round Earth on a flat map, some details have to change. For example, a place's shape may change a little. But maps have benefits. They are easier to work with. They can also show small areas, such as cities, better.

Geographers also use other tools, such as satellite images, computers, notebooks, and tape recorders.

**In what way are maps and globes similar?**

_____

_____

**Underline two sentences that tell the benefits of using maps.**

## CHALLENGE ACTIVITY

**Critical Thinking: Solving Problems** Pick a foreign country you would like to study. You want to develop the most complete picture possible of this place and its people. Make a list of questions to ask and tools you would use to find the answers.

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# A Geographer's World

## Section 2

**MAIN IDEAS**

1. The five themes of geography help us organize our studies of the world.
2. The six essential elements of geography highlight some of the subject's most important ideas.

## Key Terms and Places

**absolute location** a specific description of where a place is

**relative location** a general description of where a place is

**environment** an area's land, water, climate, plants and animals, and other physical features

## Section Summary

### THE FIVE THEMES OF GEOGRAPHY

Geographers use themes in their work. A theme is a topic that is common throughout a discussion or event. Many holidays have a theme, such as the flag and patriotism on the Fourth of July.

There are five major themes of geography: Location, Place, Human-Environment Interaction, Movement, and Regions. Geographers can use these themes in almost everything they study.

Location describes where a place is. This may be specific, such as an address. This is called an **absolute location.** It may also be general, such as saying the United States is north of Central America. This is called a **relative location.**

Place refers to an area's landscape. The landscape is made up of the physical and human features of a place. Together, these features give a place its own identity apart from other places.

Human-Environment Interaction studies how people and their environment affect each other. The **environment** includes an area's physical features, such as land, water, weather, and animals.

**List the five major themes of geography:**

_____

_____

_____

_____

_____

Geographers study how people change their environment (by building, for example). They also study how the environment causes people to adapt (by dressing for the weather, for example).

Movement involves learning about why and how people move. Do they move for work or pleasure? Do they travel by roads or other routes?

Studying Regions helps geographers learn how places are alike and different. This also helps them learn why places developed the way they did.

**Describe two ways that people and their environment affect each other.**

_____

_____

_____

_____

_____

## THE SIX ESSENTIAL ELEMENTS

**What do the five themes and six elements of geography help you do? Underline the sentence that explains this.**

It is important to organize how you study geography, so you get the most complete picture of a place. Using the five major themes can help you do this. Using the six essential elements can, also.

Geographers and teachers created the six elements from eighteen basic ideas, called standards. The standards say what everyone should understand about geography. Each element groups together the standards that are related to each other.

The six elements are: The World in Spatial Terms (spatial refers to where places are located); Places and Regions; Physical Systems; Human Systems; Environment and Society; Uses of Geography. The six elements build on the five themes, so some elements and themes are similar. Uses of Geography is not part of the five themes. It focuses on how people can use geography to learn about the past and present, and plan for the future.

## CHALLENGE ACTIVITY

**Critical Thinking: Analyze** Analyze a place you regularly visit, such as a vacation spot or a park in your neighborhood. Write a question about the place for each geography theme to help someone not familiar with the themes understand them.

Name _____ Class _____ Date _____

# A Geographer's World

## Section 3

**MAIN IDEAS**

1. Physical geography is the study of landforms, water bodies, and other physical features.
2. Human geography focuses on people, their cultures, and the landscapes they create.
3. Other branches of geography examine specific aspects of the physical or human world.

## Key Terms and Places

**physical geography** the study of the world's physical features, such as landforms, bodies of water, climates, soils, and plants.

**human geography** the study of the world's people, communities, and landscapes

**cartography** the science of making maps

**meteorology** the study of weather and what causes it

## Section Summary

### PHYSICAL GEOGRAPHY

The field of geography has many branches, or divisions. Each branch has a certain focus. No branch alone gives us a picture of the whole world. When looked at together, the different branches help us understand the Earth and its people better.

Geography has two main branches: physical geography and human geography. **Physical geography** is the study of the world's physical features, such as landforms, bodies of water, and weather.

Physical geographers ask questions about Earth's many physical features: Where are the mountains and flat areas? Why are some areas rainy and others dry? Why do rivers flow a certain way? To get their answers, physical geographers measure features—such as heights of mountains and temperatures of places.

**What do the different branches of geography help us do when they are looked at together? Underline the sentence that answers this.**

**List the two main branches of geography:**

_____

_____

Physical geography has important uses. It helps us understand how the world works. It also helps us predict and prepare for dangers, such as big storms.

## HUMAN GEOGRAPHY

**Human geography** is the study of the world's people, communities, and landscapes. It is the other main branch of geography.

Human geographers study people in the past or present. They ask why more people live in some places than in others. They also ask other questions, such as what kinds of work people do.

**Why do human geographers often study one smaller topic?**

_____

_____

People all over the world are very different, so human geographers often study a smaller topic. They might study people in one region, such as central Africa. They might study one part of people's lives in different regions, such as city life.

Human geography also has important uses. It helps us learn how people meet basic needs for food, water, and shelter. It helps people improve their lives. It can also help protect the environment.

**Circle three basic needs that people have to meet.**

## OTHER FIELDS OF GEOGRAPHY

Other branches of geography study one aspect of the world. Some of these are smaller parts of physical geography or of human geography.

Here are a few other branches to know about. **Cartography** is the science of making maps. Hydrology is the study of water on Earth. **Meteorology** is the study of weather and what causes it.

**What is meteorology?**

_____

_____

## CHALLENGE ACTIVITY

**Critical Thinking: Drawing Inferences** Examine a map of an unfamiliar city using a road atlas or an online map. Write a paragraph telling a visitor what physical and human features to look for in each quadrant (NE, SE, NW, SW).

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# Claudius Ptolemy

c. 85–165 AD

**HOW HE AFFECTED THE WORLD** No one had organized information about the world's geography before Ptolemy. He put together what is considered the world's first geography book. He also wrote some of the earliest instructions for making useful maps. Ptolemy's book would become important in the 1400s—and influence Christopher Columbus.

Bettmann/CORBIS

***As you read the biography below,*** *think about Ptolemy's inventiveness as an astronomer and a geographer during his time.*

Ptolemy was a Greek astronomer and geographer. He is thought to have worked in Egypt during the second century AD. Very little is known about his early life or even what he looked like. However, his explanation for the movements of the planets, moon, and the sun—known as the Ptolemaic system—was widely accepted. The Ptolemaic system placed the earth at the center of the solar system, making it **geocentric**.

Ptolemy's influence on early geography was equally as important. He organized the findings of geographers from the Roman and Persian empires into a single book. He gave **coordinates** to eight thousand places and physical features. He placed them on a numbered grid stretching around the world. Ptolemy's coordinates were early versions of **latitude** and **longitude**.

Ptolemy also included detailed instructions in his book for making maps of the world using latitude and longitude. However, he was aware that he only knew about one-quarter of the surface of the earth.

**VOCABULARY**

**geocentric** placing Earth at the center of the solar system

**coordinates** sets of numbers used to specify a location

**latitude** a distance from the center of Earth to a point north or south of the equator

**longitude** a distance from the center of Earth to a point east or west of the Prime Meridian (an imaginary line that runs through Greenwich, England)

In the 1200s a monk rediscovered Ptolemy's writings. In the 1400s printers published his book about geography and included his maps. Ptolemy's book became very influential although some of its contents were inaccurate. For example, his maps showed Asia as bigger than it was and extending farther east. One of Ptolemy's readers, Christopher Columbus, likely used these maps to plan his voyage in 1492.

Ptolemy's geocentric view of the solar system was replaced in 1543. However, his system of maps based on latitude and longitude is still in use today.

## WHAT DID YOU LEARN?

1. **Recall** What was the Ptolemaic system?

_____

_____

2. **Evaluate** Why do you think Ptolemy's contributions to geography were so important?

_____

_____

## ACTIVITY

Think about a tool related to astronomy or geography that we use today, such as a telescope or a world atlas. Imagine what it must have been like during Ptolemy's time, before the tool's invention. Write a letter to Ptolemy, explaining this science tool to him and how we use it today.