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Five Themes of Geography

Studying the geography of the entire world is a huge task. You can make that task easier by using the five themes of geography: location, regions, place, movement, and human-environment interaction. The themes are tools you can use to organize information and to answer the where, why, and how of geography.



▲ Location
 This museum in England has a line running through it. The line marks its location at 0° longitude.

LOCATION

1 Location answers the question, “Where is it?” You can think of the location of a continent or a country as its address. You might give an absolute location such as 40° N and 80° W. You might also use a relative address, telling where one place is by referring to another place. *Between school and the mall and eight miles east of Pleasant City* are examples of relative locations.



REGIONS

2 Regions are areas that share at least one common feature. Geographers divide the world into many types of regions. For example, countries, states, and cities are political regions. The people in any one of these places live under the same government. Other features, such as climate and culture, can be used to define regions. Therefore the same place can be found in more than one region. For example, the state of Hawaii is in the political region of the United States. Because it has a tropical climate, Hawaii is also part of a tropical climate region.

MOVEMENT

4 Movement answers the question, “How do people, goods, and ideas move from place to place?” Remember that what happens in one place often affects what happens in another. Use the theme of movement to help you trace the spread of goods, people, and ideas from one location to another.

PLACE

3 Place identifies the natural and human features that make one place different from every other place. You can identify a specific place by its landforms, climate, plants, animals, people, language, or culture. You might even think of place as a geographic signature. Use the signature to help you understand the natural and human features that make one place different from every other place.

INTERACTION

5 Human-environment interaction focuses on the relationship between people and the environment. As people live in an area, they often begin to make changes to it, usually to make their lives easier. For example, they might build a dam to control flooding during rainy seasons. Also, the environment can affect how people live, work, dress, travel, and communicate.



◀ Interaction

These Congolese women interact with their environment by gathering wood for cooking.

PRACTICE YOUR GEOGRAPHY SKILLS

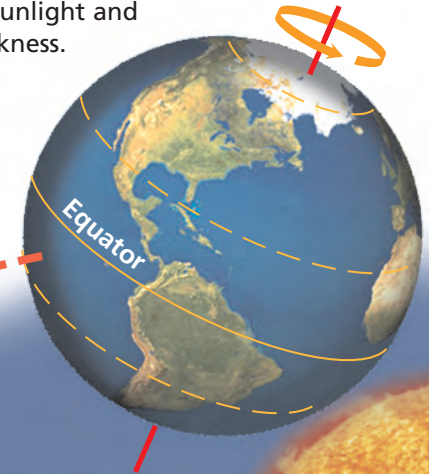
- 1** Describe your town or city, using each of the five themes of geography.
- 2** Name at least one thing that comes into your town or city and one that goes out. How is each moved? Where does it come from? Where does it go?

Understanding Movements of Earth

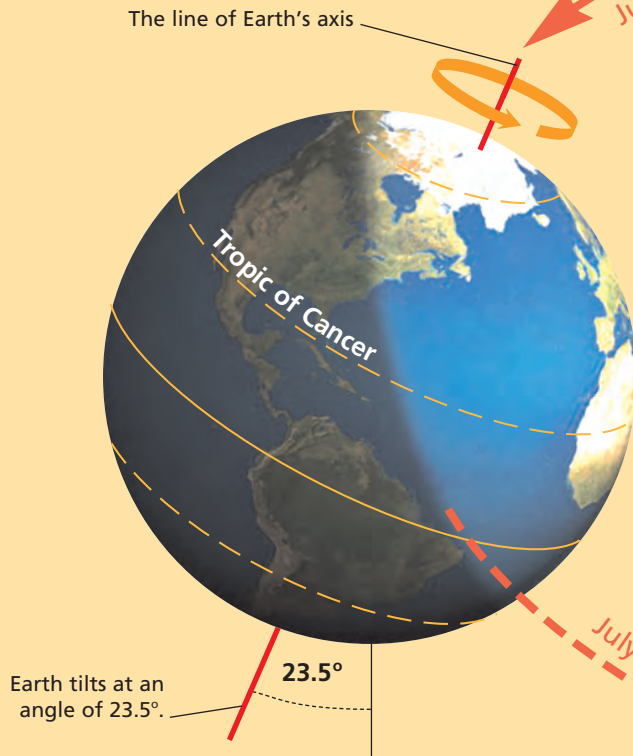
The planet Earth is part of our solar system. Earth revolves around the sun in a nearly circular path called an orbit. A revolution, or one complete orbit around the sun, takes $365\frac{1}{4}$ days, or one year. As Earth orbits the sun, it also spins on its axis, an invisible line through the center of Earth from the North Pole to the South Pole. This movement is called a rotation.

▼ Spring begins

On March 20 or 21, the sun is directly overhead at the Equator. The Northern and Southern Hemispheres receive almost equal hours of sunlight and darkness.



How Night Changes Into Day



Earth takes about 24 hours to make one full rotation on its axis. As Earth rotates, it is daytime on the side facing the sun. It is night on the side away from the sun.

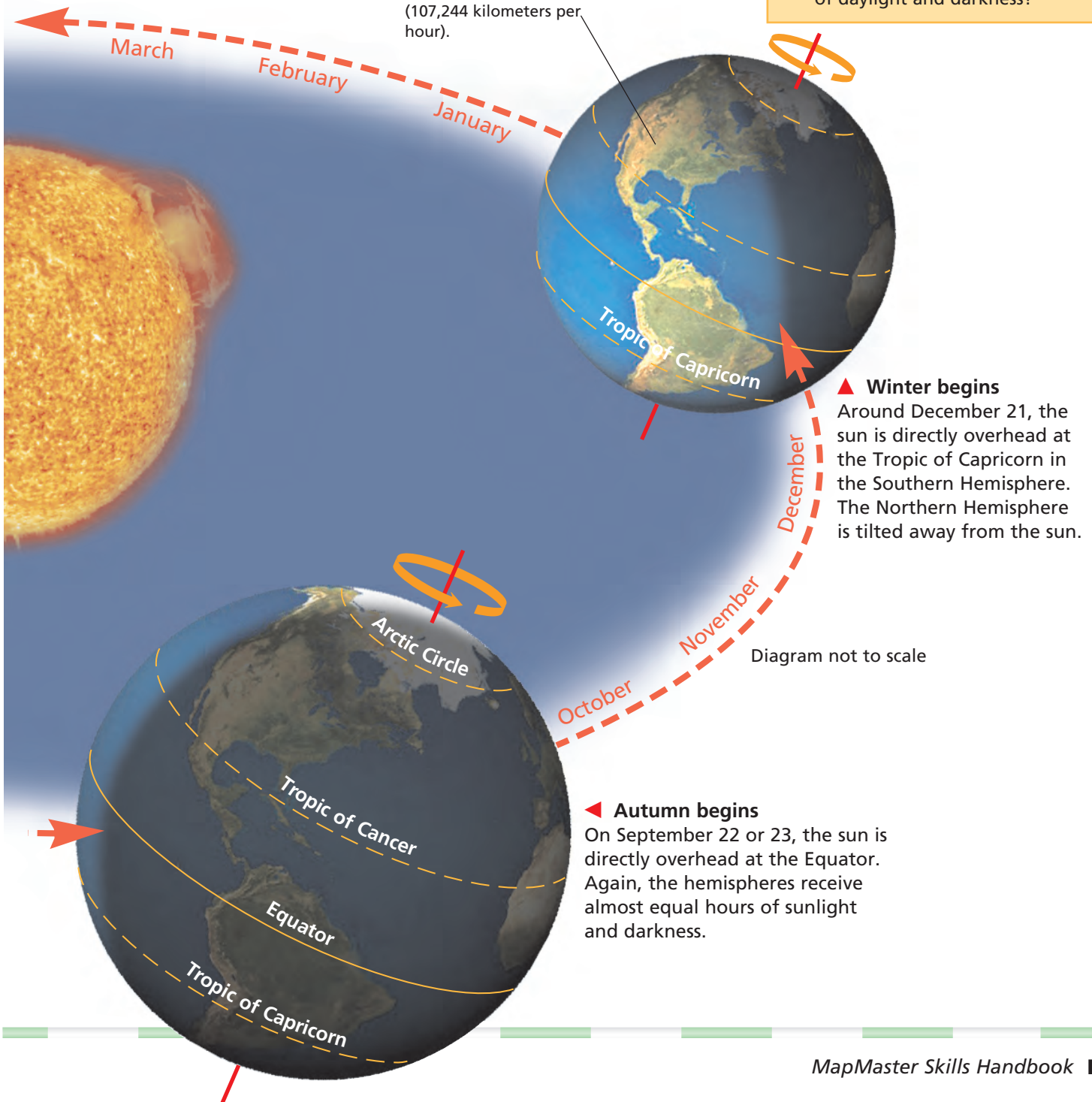
◀ Summer begins

On June 21 or 22, the sun is directly overhead at the Tropic of Cancer. The Northern Hemisphere receives the greatest number of sunlight hours.

The Seasons

Earth's axis is tilted at an angle. Because of this tilt, sunlight strikes different parts of Earth at different times in the year, creating seasons. The illustration below shows how the seasons are created in the Northern Hemisphere. In the Southern Hemisphere, the seasons are reversed.

Earth orbits the sun at 66,600 miles per hour (107,244 kilometers per hour).



PRACTICE YOUR GEOGRAPHY SKILLS

- 1 What causes the seasons in the Northern Hemisphere to be the opposite of those in the Southern Hemisphere?
- 2 During which two days of the year do the Northern Hemisphere and Southern Hemisphere have equal hours of daylight and darkness?

▲ Winter begins

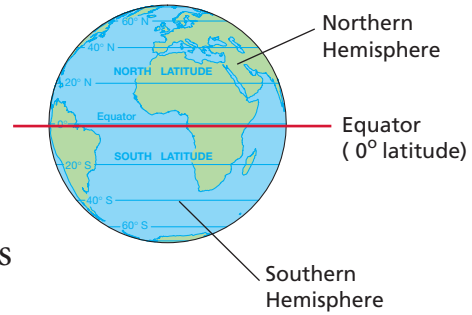
Around December 21, the sun is directly overhead at the Tropic of Capricorn in the Southern Hemisphere. The Northern Hemisphere is tilted away from the sun.

◀ Autumn begins

On September 22 or 23, the sun is directly overhead at the Equator. Again, the hemispheres receive almost equal hours of sunlight and darkness.

Understanding Globes

A globe is a scale model of Earth. It shows the actual shapes, sizes, and locations of all Earth's landmasses and bodies of water. Features on the surface of Earth are drawn to scale on a globe. This means that a small unit of measure on the globe stands for a large unit of measure on Earth.

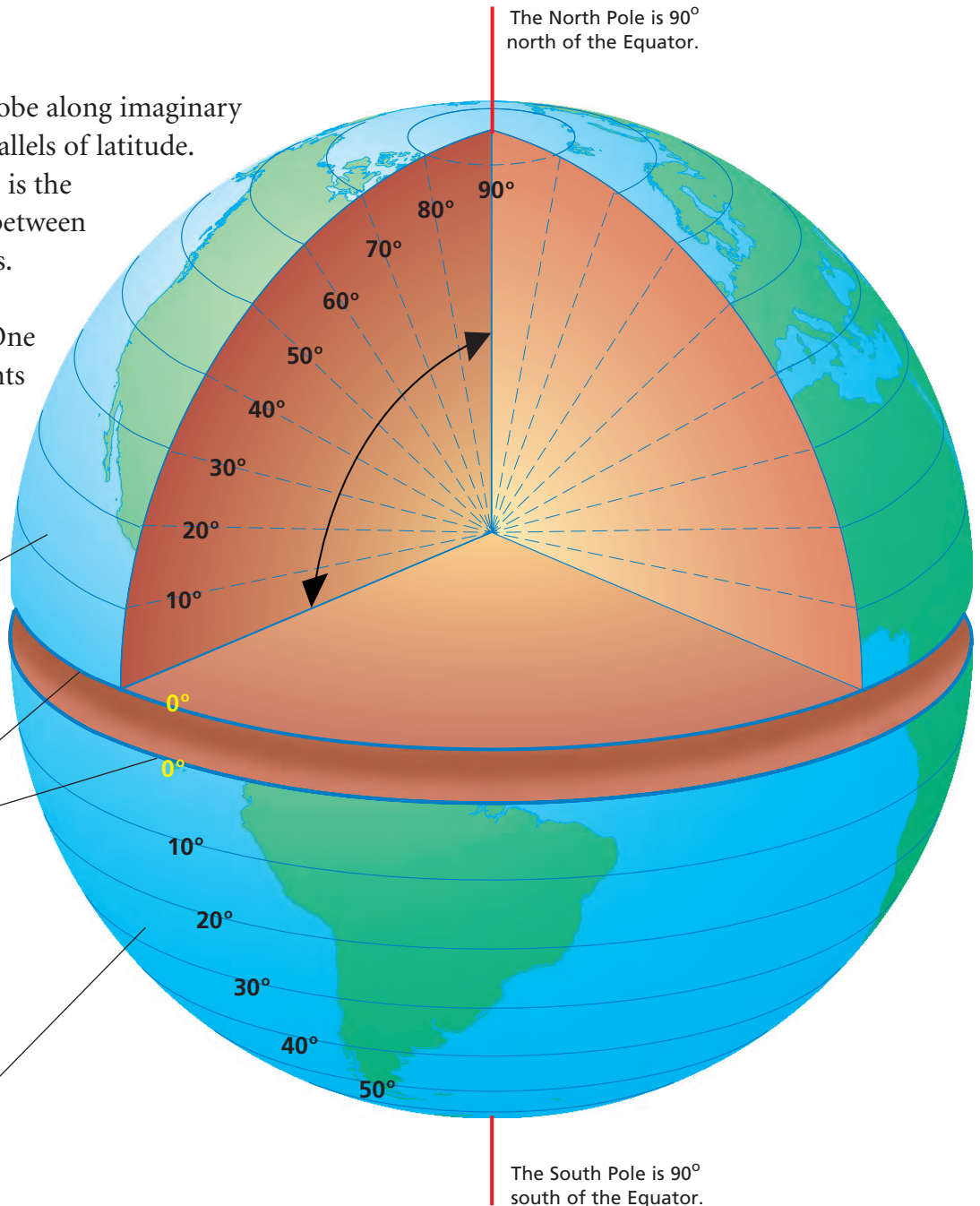


Parallels of Latitude

Geographers divide the globe along imaginary horizontal lines called parallels of latitude.

One of these latitude lines is the Equator, located halfway between the North and South Poles.

Parallels of latitude are measured in degrees (°). One degree of latitude represents a distance of about 69 miles (111 kilometers).



All the latitudes, land, and water north of the Equator are in the Northern Hemisphere.

The Equator marks 0° latitude and divides Earth into the Southern and Northern Hemispheres.

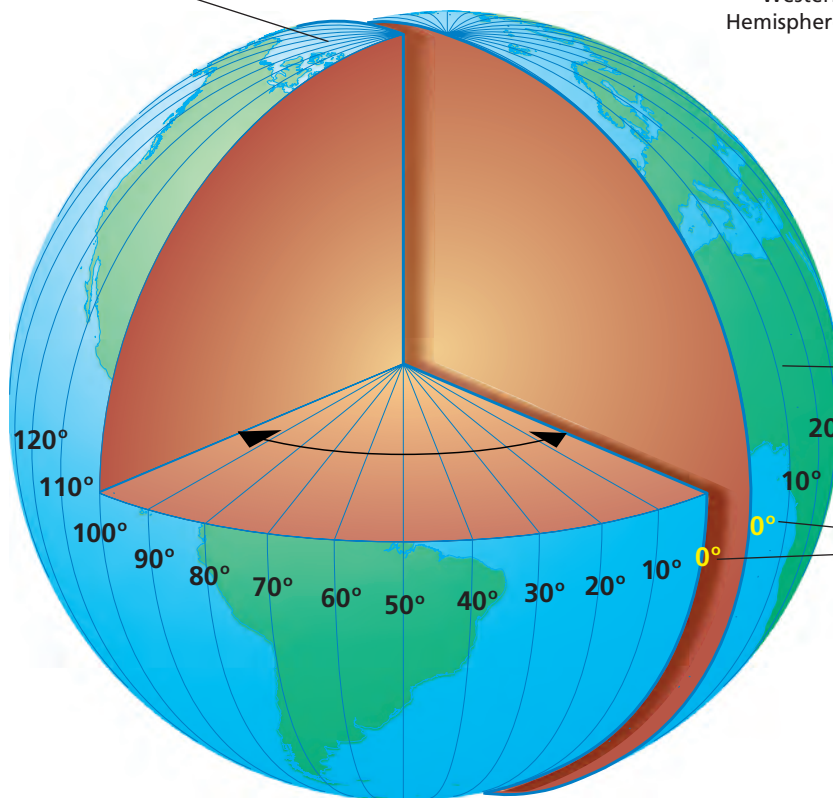
All the latitudes, land, and water south of the Equator are in the Southern Hemisphere.

The South Pole is 90° south of the Equator.

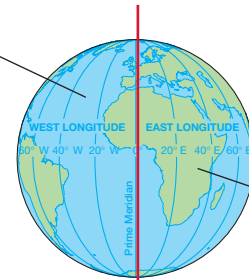
Meridians of Longitude

Geographers also divide the globe along imaginary vertical lines called meridians of longitude, which are measured in degrees ($^{\circ}$). The longitude line called the Prime Meridian runs from pole to pole through Greenwich, England. All meridians of longitude come together at the North and South Poles.

All the longitudes, land, and water west of the Prime Meridian are in the Western Hemisphere.



Western Hemisphere



Eastern Hemisphere

Prime Meridian (0° longitude)

All the longitudes, land, and water east of the Prime Meridian are in the Eastern Hemisphere.

The Prime Meridian marks 0° longitude and divides the globe into the Eastern and Western Hemispheres.

The Global Grid



Together, the pattern of parallels of latitude and meridians of longitude is called the global grid. Using the lines of latitude and longitude, you can locate any place on Earth. For example, the location of 30° north latitude and 90° west longitude is usually written as 30° N, 90° W. Only one place on Earth has these coordinates—the city of New Orleans, in the state of Louisiana.

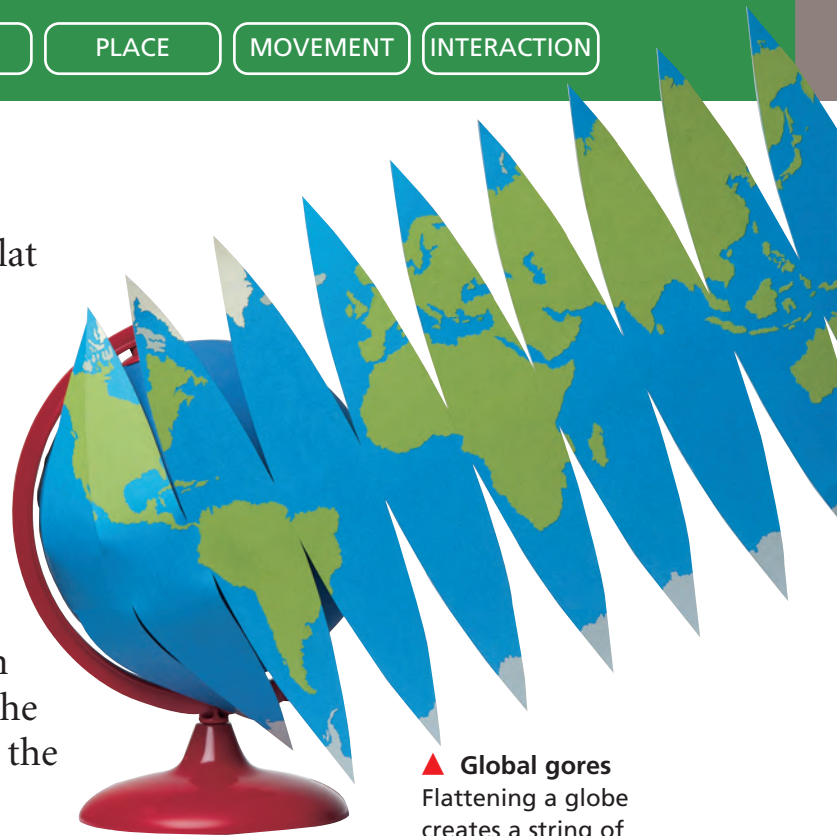


▲ Compass

Wherever you are on Earth, a compass can be used to show direction.

Map Projections

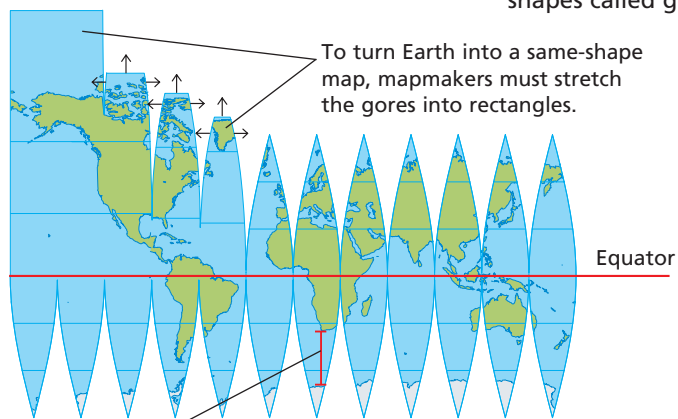
Maps are drawings that show regions on flat surfaces. Maps are easier to use and carry than globes, but they cannot show the correct size and shape of every feature on Earth's curved surface. They must shrink some places and stretch others. To make up for this distortion, mapmakers use different map projections. No one projection can accurately show the correct area, shape, distance, and direction for all of Earth's surface. Mapmakers use the projection that has the least distortion for the information they are presenting.



▲ **Global gores**
Flattening a globe creates a string of shapes called gores.

Same-Shape Maps

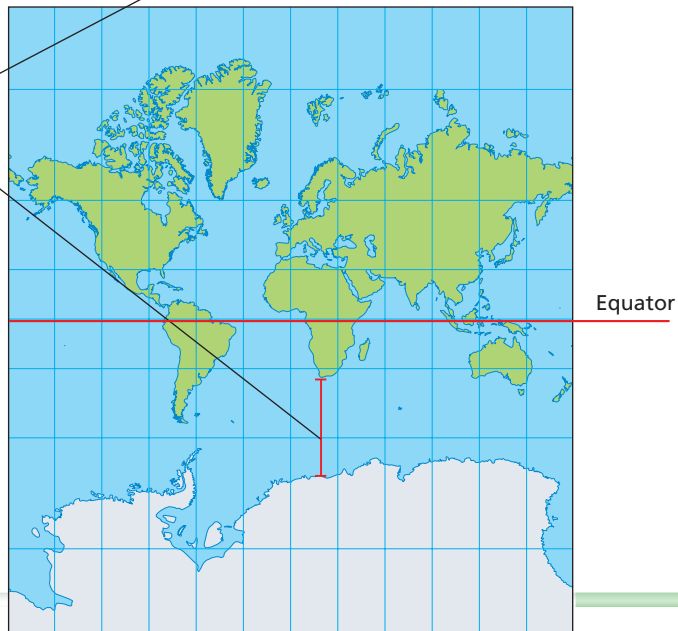
Map projections that accurately show the shapes of landmasses are called same-shape maps. However, these projections often greatly distort, or make less accurate, the size of landmasses as well as the distance between them. In the projection below, the northern and southern areas of the globe appear more stretched than the areas near the Equator.

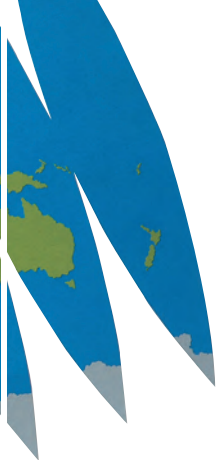


Stretching the gores makes parts of Earth larger. This enlargement becomes greater toward the North and South Poles.

Mercator projection ▶

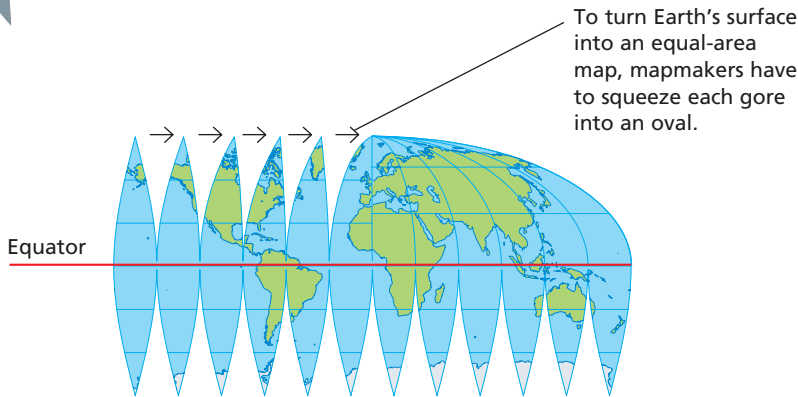
One of the most common same-shape maps is the Mercator projection, named for the mapmaker who invented it. The Mercator projection accurately shows shape and direction, but it distorts distance and size. Because the projection shows true directions, ships' navigators use it to chart a straight-line course between two ports.





Equal-Area Maps

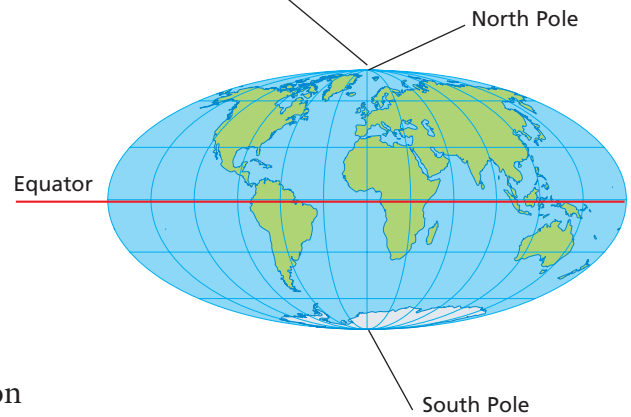
Map projections that show the correct size of landmasses are called equal-area maps. In order to show the correct size of landmasses, these maps usually distort shapes. The distortion is usually greater at the edges of the map and less at the center.



PRACTICE YOUR GEOGRAPHY SKILLS

- 1 What feature is distorted on an equal-area map?
- 2 Would you use a Mercator projection to find the exact distance between two locations? Tell why or why not.

The tips of all the gores are then joined together. The points at which they join form the North and South Poles. The line of the Equator stays the same.



The entire top edge of the map is the North Pole.

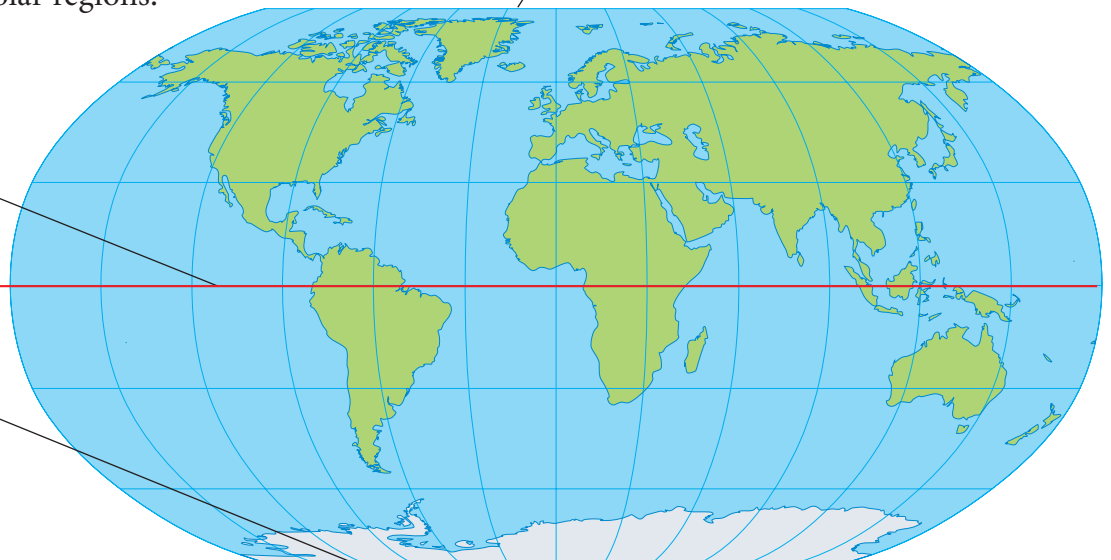
Robinson Maps

Many of the maps in this book use the Robinson projection, which is a compromise between the Mercator and equal-area projections. The Robinson projection gives a useful overall picture of the world. It keeps the size and shape relationships of most continents and oceans, but distorts the size of the polar regions.

The map is least distorted at the Equator.

Equator

The entire bottom edge of the map is the South Pole.



How to Use a Map

Mapmakers provide several clues to help you understand the information on a map. Maps provide different clues, depending on their purpose or scale. However, most maps have several clues in common.

Compass rose

Many maps show direction by displaying a compass rose with the directions north, east, south, and west. The letters N, E, S, and W are placed to indicate these directions.



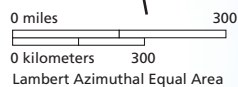
Key

Often a map has a key, or legend. The key shows the symbols and colors used on the map, and what each one means.

Key	
	National border
	National capital
	Other city

Scale bar

A scale bar helps you find the actual distances between points shown on the map. Most scale bars show distances in both miles and kilometers.



Locator globe

Many maps are shown with locator globes. They show where on the globe the area of the map is located.



Title

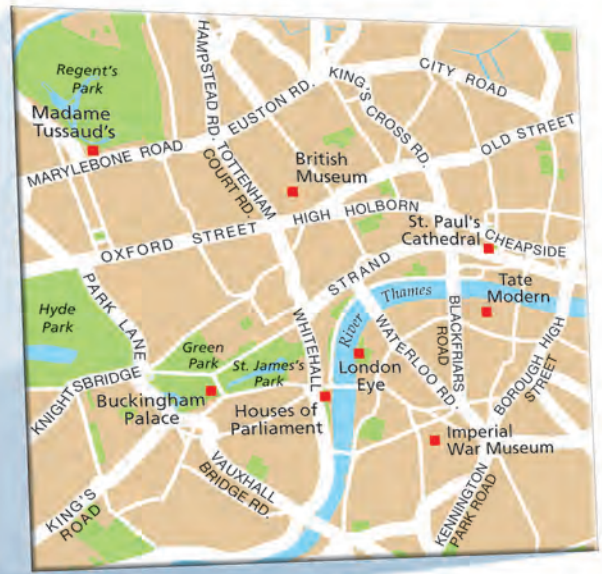
All maps have a title. The title tells you the subject of the map.

Western Europe



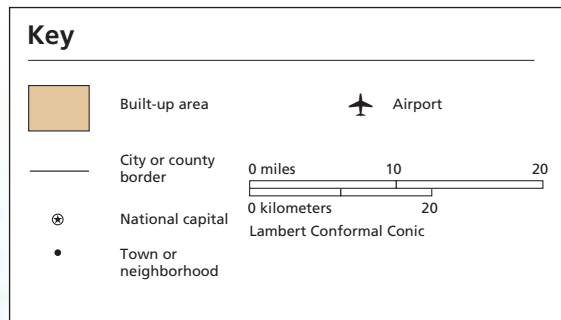
Maps of Different Scales

Maps are drawn to different scales, depending on their purpose. Here are three maps drawn to very different scales. Keep in mind that maps showing large areas have smaller scales. Maps showing small areas have larger scales.



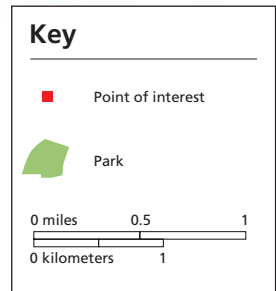
▲ Greater London

Find the gray square on the main map of Western Europe (left). This square represents the area shown on the map above. It shows London's boundaries, the general shape of the city, and the features around the city. This map can help you find your way from the airport to the center of town.



▲ Central London

Find the gray square on the map of Greater London. This square represents the area shown on the map above. This map moves you closer into the center of London. Like the zoom on a computer or a camera, this map shows a smaller area but in greater detail. It has the largest scale (1 inch represents about 0.9 mile). You can use this map to explore downtown London.



PRACTICE YOUR GEOGRAPHY SKILLS

- 1 What part of a map explains the colors used on the map?
- 2 How does the scale bar change depending on the scale of the map?
- 3 Which map would be best for finding the location of the British Museum? Explain why.

Political Maps

Political maps show political borders: continents, countries, and divisions within countries, such as states or provinces. The colors on political maps do not have any special meaning, but they make the map easier to read. Political maps also include symbols and labels for capitals, cities, and towns.

PRACTICE YOUR GEOGRAPHY SKILLS

- 1 What symbols show a national border, a national capital, and a city?
- 2 What is Angola's capital city?



Political Africa Key

- National border
- - - Disputed border
- ⊗ National capital
- Other city



▲ Dakar, Senegal
Dakar is the capital of Senegal, in West Africa. Its Presidential Palace overlooks the Atlantic Ocean.

Physical Maps

Physical maps represent what a region looks like by showing its major physical features, such as hills and plains. Physical maps also often show elevation and relief. Elevation, indicated by colors, is the height of the land above sea level. Relief, indicated by shading, shows how sharply the land rises or falls.

PRACTICE YOUR GEOGRAPHY SKILLS

- 1 Which areas of Africa have the highest elevation?
- 2 How can you use relief to plan a hiking trip?

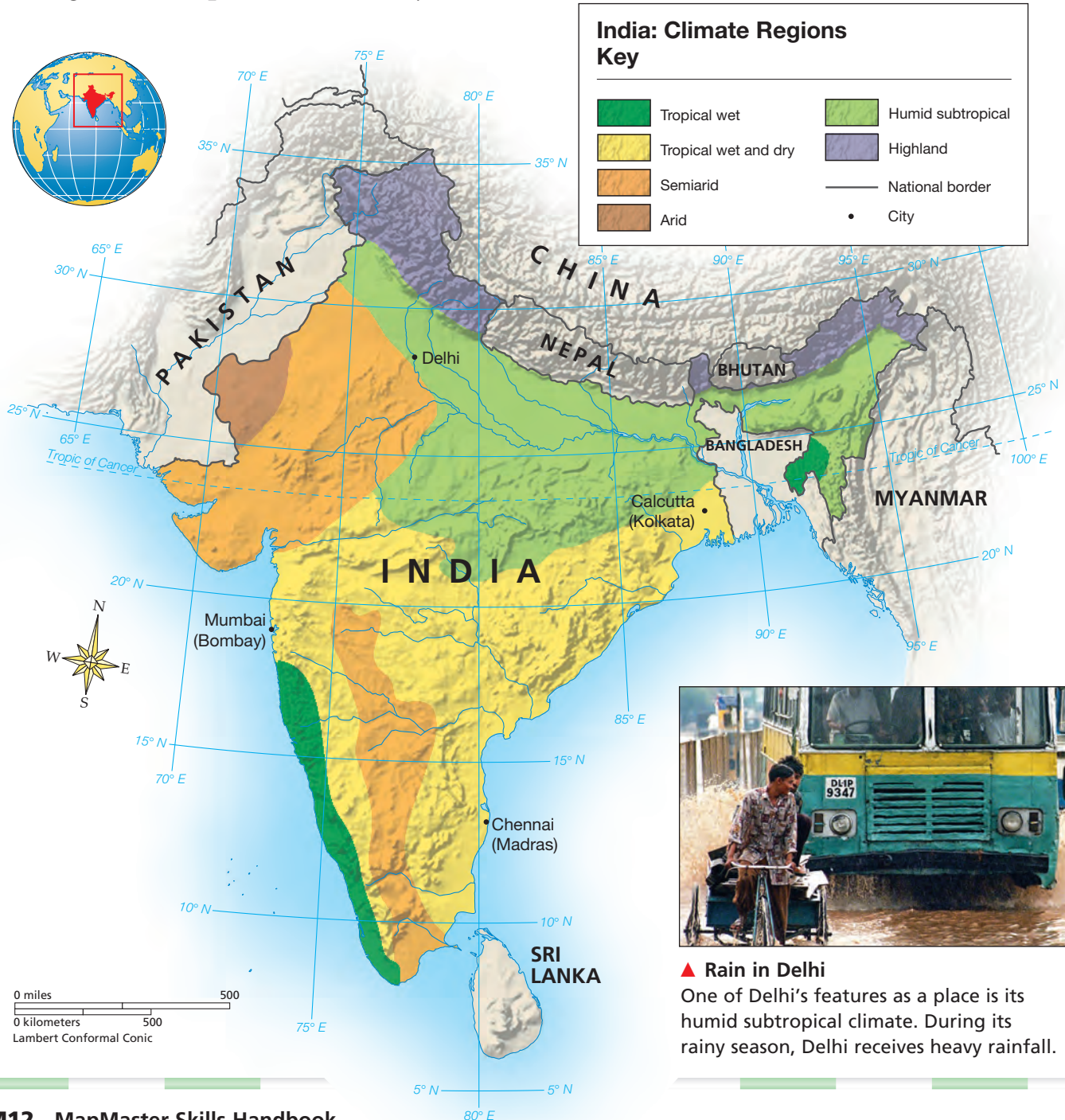


Special-Purpose Maps: Climate

Unlike the boundary lines on a political map, the boundary lines on climate maps do not separate the land into exact divisions. For example, in this climate map of India, a tropical wet climate gradually changes to a tropical wet and dry climate.

PRACTICE YOUR GEOGRAPHY SKILLS

- 1 What part of a special-purpose map tells you what the colors on the map mean?
- 2 Where are arid regions located in India? Are there major cities in those regions?



Special-Purpose Maps: Language

This map shows the official languages of India. An official language is the language used by the government. Even though a region has an official language, the people there may speak other languages as well. As in other special-purpose maps, the key explains how the different languages appear on the map.

PRACTICE YOUR GEOGRAPHY SKILLS

- 1 What color represents the Malayalam language on this map?
- 2 Where in India is Tamil the official language?



The Hindi language ▶
Hindi is the most widely spoken language in India. It is also the most popular language in Delhi.



Human Migration

Migration is an important part of the study of geography. Since the beginning of history, people have been on the move. As people move, they both shape and are shaped by their environments. Wherever people go, the culture they bring with them mixes with the cultures of the place in which they have settled.

Explorers arrive ▼
 In 1492, Christopher Columbus set sail from Spain for the Americas with three ships. The ships shown here are replicas of those ships.



▲ Native American pyramid
 When Europeans arrived in the Americas, the lands they found were not empty. Diverse groups of people with distinct cultures already lived there. The temple-topped pyramid shown above was built by Mayan Indians in Mexico, long before Columbus sailed.

Migration to the Americas, 1500–1800

A huge wave of migration from the Eastern Hemisphere began in the 1500s. European explorers in the Americas paved the way for hundreds of years of European settlement there. Forced migration from Africa started soon afterward, as Europeans began to import enslaved Africans to work in the Americas. The map to the right shows these migrations.





PRACTICE YOUR GEOGRAPHY SKILLS

- 1 Where did the Portuguese settle in the Americas?
- 2 Would you describe African migration at this time as a result of both push factors and pull factors? Explain why or why not.

“Push” and “Pull” Factors

Geographers describe a people’s choice to migrate in terms of “push” factors and “pull” factors. Push factors are things in people’s lives that push them to leave, such as poverty and political unrest. Pull factors are things in another country that pull people to move there, including better living conditions and hopes of better jobs.



▲ Elmina, Ghana

Elmina, in Ghana, is one of the many ports from which enslaved Africans were transported from Africa. Because slaves and gold were traded here, stretches of the western African coast were known as the Slave Coast and the Gold Coast.











Migration to Latin America, 1500–1800

Key	
	European migration
	African migration
	National or colonial border
	Traditional African border
	African State
	Spain and possessions
	Portugal and possessions
	Netherlands and possessions
	France and possessions
	England and possessions

World Land Use

People around the world have many different economic structures, or ways of making a living. Land-use maps are one way to learn about these structures. The ways that people use the land in each region tell us about the main ways that people in that region make a living.

World Land Use Key

-  Nomadic herding
-  Hunting and gathering
-  Forestry
-  Livestock raising
-  Commercial farming
-  Subsistence farming
-  Manufacturing and trade
-  Little or no activity
-  National border
-  Disputed border



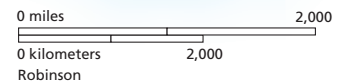
▲ Wheat farming in the United States
 Developed countries practice commercial farming rather than subsistence farming. Commercial farming is the production of food mainly for sale, either within the country or for export to other countries. Commercial farmers like these in Oregon often use heavy equipment to farm.

Levels of Development

Notice on the map key the term *subsistence farming*. This term means the production of food mainly for use by the farmer's own family. In less-developed countries, subsistence farming is often one of the main economic activities. In contrast, in developed countries there is little subsistence farming.



▲ Growing barley in Ecuador
 These farmers in Ecuador use hand tools to harvest barley. They will use most of the crop they grow to feed themselves or their farm animals.





▲ **Growing rice in Vietnam**

Women in Vietnam plant rice in wet rice paddies, using the same planting methods their ancestors did.

**PRACTICE YOUR
GEOGRAPHY SKILLS**

- 1 In what parts of the world is subsistence farming the main land use?
- 2 Locate where manufacturing and trade are the main land use. Are they found more often near areas of subsistence farming or areas of commercial farming? Why might this be so?



◀ **Herding cattle in Kenya**

Besides subsistence farming, nomadic herding is another economic activity in Africa. This man drives his cattle across the Kenyan grasslands.