

Physical Geography

What You Will Learn...

Main Ideas

1. West Africa's key physical features include plains and the Niger River.
2. West Africa has distinct climate and vegetation zones that go from arid in the north to tropical in the south.
3. West Africa has good agricultural and mineral resources that may one day help the economies in the region.

The Big Idea

West Africa, which is mostly a region of plains, has climates ranging from arid to tropical and has important resources.

Key Terms and Places

Niger River, p. 373

zonal, p. 374

Sahel, p. 374

desertification, p. 374

savanna, p. 374

TAKING NOTES

As you read, use a chart like the one below to help you organize your notes on the physical geography of West Africa.

Physical features	
Climate and vegetation	
Resources	

If YOU lived there...

Your family grows crops on the banks of the Niger River. Last year, your father let you go with him to sell the crops in a city down the river. This year you get to go with him again. As you paddle your boat, everything looks the same as last year—until suddenly the river appears to grow! It looks as big as the sea, and there are many islands all around. The river wasn't like this last year.

What do you think caused the change in the river?

BUILDING BACKGROUND The Niger River is one of West Africa's most important physical features. It brings precious water to the region's dry plains. Much of the interior of West Africa experiences desertlike conditions, but the region's rivers and lakes help to support life there.

Physical Features

The region we call West Africa stretches from the Sahara in the north to the coasts of the Atlantic Ocean and the Gulf of Guinea in the west and south. While West Africa's climate changes quite a bit from north to south, the region does not have a wide variety of landforms. Its main physical features are plains and rivers.

Plains and Highlands

Plains, flat areas of land, cover most of West Africa. The coastal plain is home to most of the region's cities. The interior plains provide land where people can raise a few crops or animals.

West Africa's plains are vast, interrupted only by a few highland areas. One area in the southwest has plateaus and cliffs. People have built houses directly into the sides of these cliffs for many hundreds of years. The region's only high mountains are the Tibesti Mountains in the northeast.

The Niger River

As you can see on the map below, many rivers flow across West Africa's plains. The most important river is the Niger (NY-juhr). The **Niger River** starts in some low mountains not too far from the Atlantic Ocean. From there, it flows 2,600 miles (4,185 km) into the interior of the region before emptying into the Gulf of Guinea.

The Niger brings life-giving water to West Africa. Many people farm along its banks or fish in its waters. It is also an important transportation route, especially

during the rainy season. At that time, the river floods and water flows smoothly over its rapids.

Part of the way along its route the river divides into a network of channels, swamps, and lakes. This watery network is called the inland delta. Although it looks much like the delta where a river flows into the sea, this one is actually hundreds of miles from the coast in Mali.

FOCUS ON READING

The word **although** signals contrast in this paragraph. What is being contrasted?

READING CHECK Summarizing Why is the Niger River important to West Africa?



Interactive Map

West Africa: Physical



Regions West Africa is mainly a region of plains with a few highland areas. Many rivers flow across West Africa's plains.

1. **Identify** What is the longest river in West Africa?
2. **Make Inferences** How do you think the rivers affect life in West Africa?

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- 1 The wide Niger River flows past Bamako, the capital of Mali, seen here in the distance.





Sahel Vegetation in the semiarid Sahel is limited, but it does support some grazing animals.

climate. Rainfall there varies greatly from year to year. In some years it never rains. Although the Sahel is quite dry, it does have enough vegetation to support hardy grazing animals.

However, the Sahel is becoming more like the Sahara. Animals have overgrazed the land in some areas. Also, people have cut down trees for firewood. Without these plants to anchor the soil, wind blows soil away. These conditions, along with drought, are causing desertification in the Sahel. **Desertification** is the spread of desertlike conditions.

To the south of the Sahel is a savanna zone. A **savanna** is an area of tall grasses and scattered trees and shrubs. When rains fall regularly, farmers can do well in this region of West Africa.

The fourth climate zone lies along the coasts of the Atlantic and the Gulf of Guinea. This zone has a humid tropical climate. Plentiful rain supports tropical forests. However, many trees have been cut from these forests to make room for the region's growing populations.

READING CHECK Categorizing What are the region's four climate zones?

Climate and Vegetation

West Africa has four different climate regions. As you can see on the map above, these climate regions stretch from east to west in bands or zones. Because of this, geographers say the region's climates are **zonal**, which means "organized by zone."

The northernmost zone of the region lies within the Sahara, the world's largest desert. Hardly any vegetation grows in the desert, and large areas of this dry climate zone have few or no people.

South of the Sahara is the semiarid **Sahel** (SAH-hel), a strip of land that divides the desert from wetter areas. It has a steppe



Regions Four climate types stretch across West Africa in horizontal bands.

1. **Identify** What countries have desert climates?
2. **Make Inferences** What areas do you think get the most rainfall?

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Savanna Grasses and scattered trees grow on the savanna. This region can be good for farming.



Tropical Forest Thick forests are found along the coasts of West Africa. The tall trees provide homes for many animals.

Resources

West Africa has a variety of resources. These resources include agricultural products, oil, and minerals.

The climate in parts of West Africa is good for agriculture. For example, Ghana is the world's leading producer of cacao, which is used to make chocolate. Coffee, coconuts, and peanuts are also among the region's main exports.

Oil, which is found off the coast of Nigeria, is the region's most valuable resource. Nigeria is a major exporter of oil. West Africa also has mineral riches, such as diamonds, gold, iron ore, and bauxite. Bauxite is the main source of aluminum.

READING CHECK Summarizing What are some of the region's resources?

SUMMARY AND PREVIEW West Africa is mostly covered with plains. Across these plains stretch four different climate zones, most of which are dry. In spite of the harsh climate, West Africa has some valuable resources. Next, you will learn about West Africa's history and culture.

Section 1 Assessment

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Online Quiz

KEYWORD: SK7 HPS

Reviewing Ideas, Terms, and Places

- a. Describe** What is the inland delta on the Niger River like?

b. Summarize What is the physical geography of West Africa like?

c. Elaborate Why do you think most of West Africa's cities are located on the coastal plain?
- a. Recall** Why do geographers say West Africa's climates are zonal?

b. Compare and Contrast What is one similarity and one difference between the Sahel and the savanna?

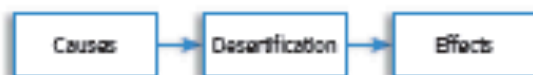
c. Evaluate How do you think desertification affects people's lives in West Africa?
- a. Identify** What is the most valuable resource in West Africa?

b. Make Inferences Where do you think most of the crops in West Africa are grown?

Critical Thinking

4. Identifying Cause and Effect

Review your notes on climate. Using a graphic organizer like the one here, identify the causes and effects of desertification.



FOCUS ON SPEAKING

- Describing the Physical Geography** The person you will describe will live or have lived in this region. How might the physical geography have affected his or her life?