

What You Will Learn ...

Main Ideas

1. East Africa's physical features range from rift valleys to plains.
2. East Africa's climate is influenced by its location and elevation, and the region's vegetation includes savannas and forests.

The Big Idea

East Africa is a region of diverse physical features, climates, and vegetation.

Key Terms and Places

rift valley, p. 394

Great Rift Valley, p. 394

Mount Kilimanjaro, p. 395

Serengeti Plain, p. 395

Lake Victoria, p. 396

drought, p. 397

TAKING NOTES As you read, use the chart below to take notes on East Africa's physical features, and climate and vegetation.

Physical Features	
Climate and Vegetation	

Physical Geography

If YOU lived there...

You and your friends are planning to hike up Mount Kilimanjaro, near the equator in Tanzania. It is hot in your camp at the base of the mountain. You're wearing shorts and a T-shirt, but your guide tells you to pack a fleece jacket and jeans. You start your climb, and soon you understand this advice. The air is much colder, and there's snow on the nearby peaks.

Why is it cold at the top of the mountain?

BUILDING BACKGROUND The landscapes of East Africa have been shaped by powerful forces. The movement of tectonic plates has stretched the Earth's surface here, creating steep-sided valleys and huge lakes.

Physical Features

East Africa is a region of spectacular landscapes and wildlife. Vast plains and plateaus stretch throughout the region. In the north lie huge deserts and dry grasslands. In the southwest, large lakes dot the plateaus. In the east, sandy beaches and colorful coral reefs run along the coast.

The Rift Valleys

Look at the map on the next page. As you can see, East Africa's rift valleys cut from north to south across the region. **Rift valleys** are places on Earth's surface where the crust stretches until it breaks. Rift valleys form when Earth's tectonic plates move away from each other. This movement causes the land to arch and split along the rift valleys. As the land split open, volcanoes erupted and deposited layers of rock in the region.

Seen from the air, the **Great Rift Valley** looks like a giant scar. The Great Rift Valley is the largest rift on Earth and is made up of two rifts—the eastern rift and the western rift.

East Africa: Physical

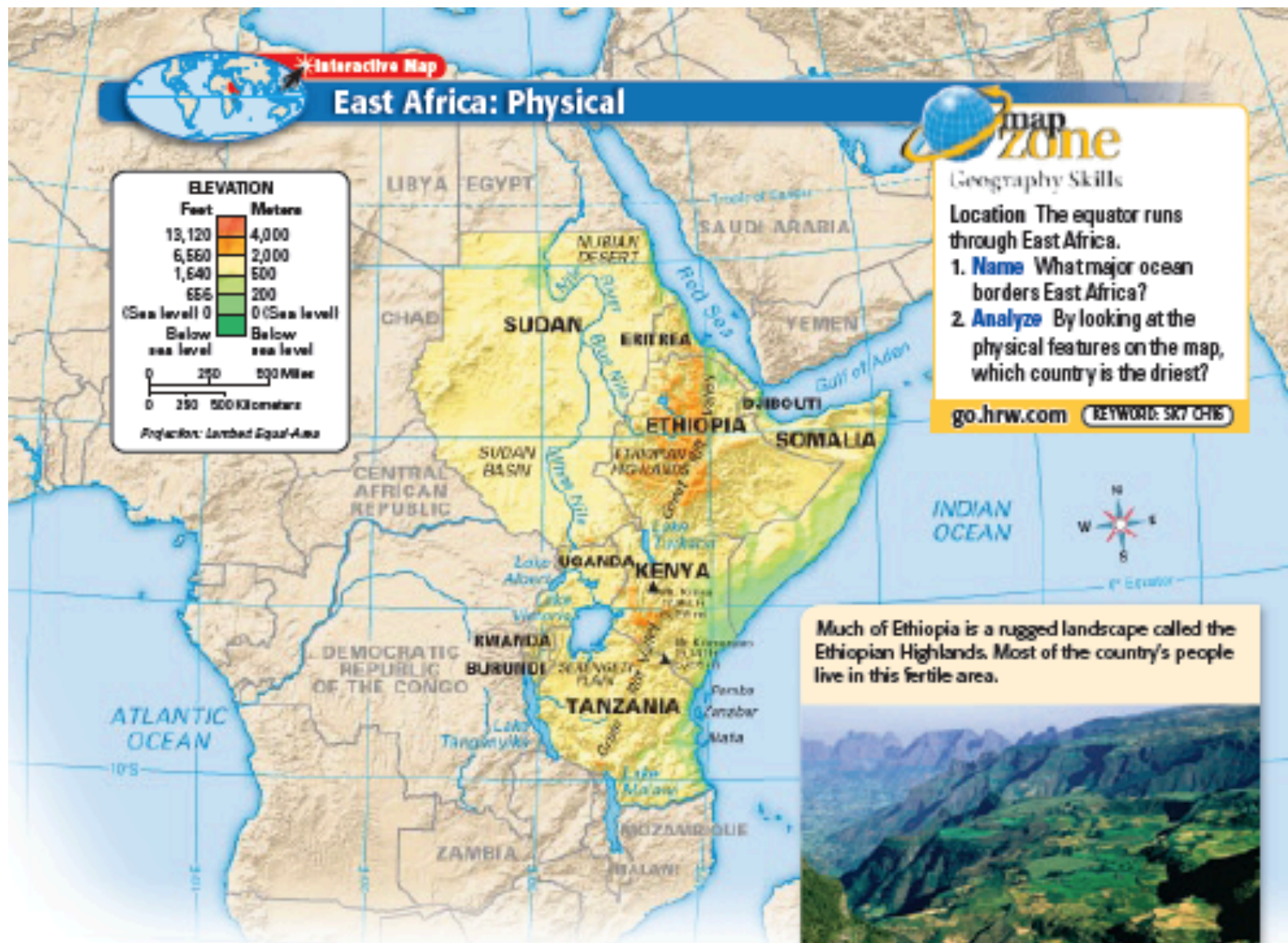
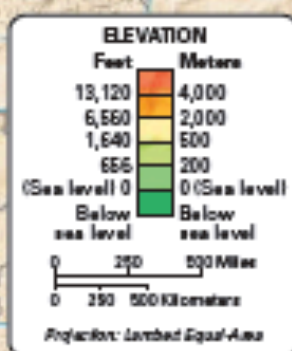


Geography Skills

Location The equator runs through East Africa.

- Name** What major ocean borders East Africa?
- Analyze** By looking at the physical features on the map, which country is the driest?

go.hrw.com KEYWORD: SK7 CH6



Much of Ethiopia is a rugged landscape called the Ethiopian Highlands. Most of the country's people live in this fertile area.



The rift walls are usually a series of steep cliffs. These cliffs rise as much as 6,000 feet (2,000 m).

Mountains and Highlands

The landscape of East Africa has many high volcanic mountains. The highest mountain in Africa, **Mount Kilimanjaro** (ki-luh-muhn-JAHR-oh), rises to 19,340 feet (5,895 m). Despite Kilimanjaro's location near the equator, the mountain's peak has long been covered in snow. This much colder climate is caused by Kilimanjaro's high elevation.

Other areas of high elevation in East Africa include the Ethiopian Highlands.

These highlands, which lie mostly in Ethiopia, are very rugged. Deep river valleys cut through this landscape.

Plains

Even though much of East Africa lies at high elevations, some areas are flat. For example, plains stretch as far as the eye can see along the eastern rift in Tanzania and Kenya. Tanzania's **Serengeti Plain** is one of the largest plains. It is here that an abundance of wildlife thrives. The plain's grasses, trees, and water provide nutrition for wildlife that includes elephants, giraffes, lions, and zebras. To protect this wildlife, Tanzania established a national park.

FOCUS ON READING

What details in this paragraph support this section's second main idea?

Rivers and Lakes

East Africa also has a number of rivers and large lakes. The world's longest river, the Nile, begins in East Africa and flows north to the Mediterranean Sea. The Nile is formed by the meeting of the Blue Nile and the White Nile at Khartoum, Sudan. The White Nile is formed by the water that flows into Africa's largest lake, **Lake Victoria**. The Blue Nile is formed from waters that run down from Ethiopia's highlands. As the Nile meanders through Sudan, it provides a narrow, fertile lifeline to farmers in the desert.

The region has a number of great lakes in addition to Lake Victoria. One group of lakes forms a chain in the western rift valleys. There are also lakes along the drier eastern rift valleys. Near the eastern rift, heat from the Earth's interior makes some

lakes so hot that no human can swim in them. In addition, some lakes are extremely salty. However, some of these rift lakes provide algae for the region's flamingos.

READING CHECK Evaluating What river is the most important in this region? Why?

Climate and Vegetation

When you think of Africa, do you think of it as being a hot or cold place? Most people usually think all of Africa is hot. However, they are mistaken. Some areas of East Africa have a cool climate.

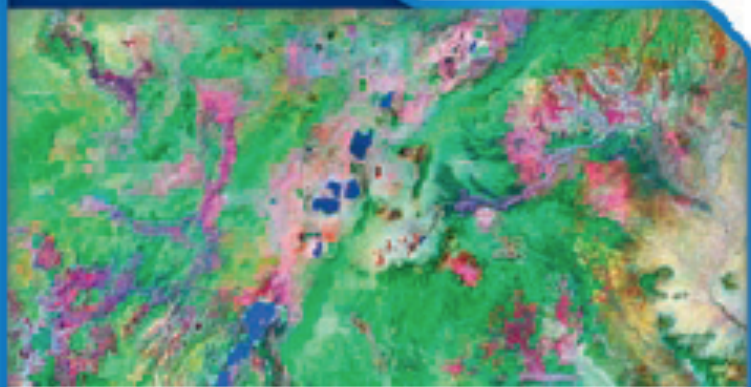
East Africa's location on the equator and differences in elevation influence the climates and types of vegetation in East Africa. For example, areas near the equator receive the greatest amount of rainfall. Areas farther from the equator are much drier and seasonal droughts are common.

Droughts are periods when little rain falls, and crops are damaged. During a drought, crops and the grasses for cattle die and people begin to starve. Several times in recent decades droughts have affected the people of East Africa.

Further south of the equator the climate changes to tropical savanna. Tall grasses and scattered trees make up the savanna landscape. Here the greatest climate changes occur along the sides of the rift valleys. The rift floors are dry with grasslands and thorn shrubs.

North of the equator, areas of plateaus and mountains have a highland climate and dense forests. Temperatures in the highlands are much cooler than temperatures on the savanna. The highlands experience heavy rainfall because of its high elevation, but the valleys are drier. This mild climate makes farming possible. As a result, most of the region's population lives in the highlands.

Satellite View



Great Rift Valley

This satellite image of part of the Great Rift Valley in Ethiopia was created by using both infrared light and true color. The bright blue dots are some of the smaller lakes that were created by the rifts. Once active volcanoes, some of these lakes are very deep. Vegetation appears as areas of green. Bare, rocky land appears pink and gray.

Analyzing How were the lakes in the Great Rift Valley created?



Ancient volcanoes surround Uganda's Lake Mutanda. Here villagers rely on the lake's plentiful supply of fish.

Areas east of the highlands and on the Indian Ocean coast are at a much lower elevation. These areas have desert and steppe climates. Vegetation is limited to shrubs and hardy grasses that are adapted to water shortages.

READING CHECK Categorizing What are some of East Africa's climate types?

SUMMARY AND PREVIEW In this section you learned about East Africa's rift valleys, mountains, highlands, plains, rivers, and lakes. You also learned that the region's location and elevation affect its climate and vegetation. In the next section you will learn about East Africa's history and culture.

Section 1 Assessment

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Online Quiz

KEYWORD: S17 HP16

Reviewing Ideas, Terms, and Places

- Define** What are rift valleys?
 - Explain** Why is there snow on Mount Kilimanjaro?
 - Elaborate** What are some unusual characteristics of the lakes in the Great Rift Valley?
- Recall** What is the climate of the highlands in East Africa like?
 - Draw Conclusions** What are some effects of drought in the region?
 - Develop** How are the climates of some areas of East Africa affected by elevation?

Critical Thinking

- Categorizing** Using your notes and this chart, place details about East Africa's physical features into different categories.

Physical Features			
Rift Valleys	Mountains and Highlands	Plains	Rivers and Lakes

FOCUS ON WRITING

- Describing the Physical Geography** Note the physical features of East Africa that you can describe in your letter. How do these features compare to the features where you live?