Dear Educator:

Once again TIAA-CREF is delighted to be a national sponsor of NATURE, and to help bring its award-winning educational programs and teaching materials to you and your students. This Teacher’s Guide and accompanying National Geographic map give students and teachers the opportunity to use the NATURE mini-series, AFRICA, to further explore how Africa’s people are maintaining their traditions in the face of rapid environmental and economic change. We hope this educational package helps you and your class to appreciate the remarkably diverse geography of Africa and to better understand how people live there today.

For over eighty years, TIAA-CREF has recognized the crucial role of the teacher in our society. We are dedicated to providing pension, investment, and insurance products that help build financial security for those who choose careers in education and research.

TIAA-CREF salutes you and your colleagues for your commitment to educating our youth.

John H. Biggs  
Chairman, President and CEO

Visit our Web site at www.tiaa-cref.org to learn more about how TIAA-CREF is ensuring the future for those who shape it, or call 1-800-223-1200 for further information.

Sincerely,

John H. Biggs  
Chairman, President and CEO
INTRODUCTION

Africa can be seen as a mosaic—of cultures, of communities, and of ecological regions. Filmed in eleven countries, the NATURE mini-series AFRICA shows the resourcefulness of the continent’s people and the distinctiveness of their land. AFRICA also includes scenes of wildlife in each featured region, from the crocodiles of the Borkul to the elephants of the Sahel.

The people whose stories are told in AFRICA live in cities, towns, and rural villages. The programs provide a glimpse into the way they maintain their traditions as they live with change. While residing in very different places and responding to different challenges, many of them make difficult journeys and face critical tests (including rites of passage) before they reach their goals.

These educational materials are intended to give you and your students a better understanding of many aspects of life in Africa. We also hope that the series and teacher’s guide help to dispel some common stereotypes about life in Africa today.

### National Geography and Social Studies Standards

This guide incorporates national educational standards for both geography and social studies in each lesson plan. While space does not permit describing these standards in detail, the teacher’s pages list the relevant standards for each program. For more information on the National Geography Standards for grades 5-8 on the Web, go to [www.ncge.org/publications/tutorial/standards/](http://www.ncge.org/publications/tutorial/standards/). To purchase Geography for Life: National Geography Standards 1994, please contact the National Council for Geographic Education at [www.ncge.org](http://www.ncge.org) or by calling 724-357-6290.

For more information on the ten strands of the National Council for the Social Studies (NCSS) Standards, go to [www.ncss.org/standards/2.1.html](http://www.ncss.org/standards/2.1.html). To purchase a copy of Expectations of Excellence: Curriculum Standards for Social Studies, please call NCSS Publications at 800-683-0812.

### The Education Materials

This guide includes a Teacher's Page and a Student Activity Master for each program in AFRICA. The Teacher's Page features an Overview, Objectives, before and after Viewing Activities, Discussion Questions, and Suggested Resources.

The Student Activity Masters are to be duplicated and distributed to students. They encourage family viewing and contain a number of creative activities. There is also a separate Student Activity Master that includes vocabulary words for each program in the series.

While these materials encourage home viewing, you may choose to focus on segments of a program in class. If you use this approach, we recommend that you tape and preview the program to find segments that relate to the discussion questions and student worksheet.
**At-a-Glance**

**Program Overview**

On “Savanna Homecoming,” two East African women make emotional journeys to their hometowns. In the first story, Alice Wangui runs a beauty parlor in Nairobi, the capital of Kenya. According to Kikuyu tradition, Alice wants her baby to be born in the place where her ancestors were born. So, against her doctor’s wishes, she travels to Nyeri, Kenya. This journey involves a three-hour bus ride over bumpy roads.

Meanwhile, in Tanzania, Flora Saladik travels on foot to Arusha, the city where she was born. Eleven years before, Flora married a man named Loshero and moved to an isolated homestead. Flora enjoys the beauty and simplicity of the land, but faces many challenges — no telephones, mail service, or electricity. She looks after her three children, farm, and home while her husband searches for food with other hunter-gatherers. Flora’s visit to Arusha will help her decide if she should move back.

**Objectives**

Students will:
- learn about life in Kenya and Tanzania.
- discuss the personal, economic, and cultural factors that influence a person’s decision about where to live.
- identify similarities and differences between African and American cities.

**National Geography Standards, Grades 5-8:**
- the physical and human characteristics of places (Standard 4).
- how culture and experience influence people’s perceptions of places and regions (Standard 6).

**NCSS Standards**
- This program can help students compare similarities and differences in the ways groups, societies, and cultures meet human needs and concerns (NCSS Middle Grade Curriculum Standard 1).

**Before Viewing the Program**

Ask students to find Kenya and Tanzania on a map of Africa (you may use the map sent with this guide). Explain that the video they are about to watch mentions two African cities: Nairobi, Kenya, and Arusha, Tanzania. Tell students that the population of each city is more than a million. Ask students to think of, or quickly research in an almanac, two U.S. cities that have more than a million people, such as Chicago or Dallas. Then lead students in a short discussion about what they think might be some of the similarities and differences between these U.S. cities and Nairobi and Arusha. Here are some questions you might ask:

- What kinds of businesses might you expect to find in Nairobi and Arusha?
- What kinds of products do you think are produced in these cities?
- How do you think the schools in Nairobi and Arusha are different than ours?

Write all ideas on the board. Then, after watching the program, return to these hypotheses and analyze which are supported by evidence from the program and which are based on misinformation or stereotypes. You may wish to “turn the tables” by having students speculate on what types of stereotypes kids in Africa might have about life in American schools or cities.

**Using the Student Activity Master**

Hand out photocopies of the student activity master on the opposite page, and preview it with students. As they watch the program, ask them to pay special attention to the similarities and differences between city life and country life in Africa. In addition, ask them to look for similarities between African and American cities. Have student volunteers read aloud the vocabulary words for this program.

**After Viewing the Program**

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask the following questions:

1. Why is it very important to Alice to have her baby born in her hometown of Nyeri, Kenya? (Alice is a Kikuyu, Kenya’s largest ethnic group. According to tradition, Kikuyu babies should be born in the same place as the baby’s parents, grandparents, etc. Since Alice was born in Nyeri, she wants her children to be born there, too.)

2. From Flora’s point of view, what are some advantages of living in Kijungu, a small village in Tanzania? What are some disadvantages? (In Kijungu, Flora can enjoy peaceful, beautiful surroundings. Also, her children are able to learn survival skills, such as how to raise crops and collect honey. However, living in this small village can be frustrating and lonely. With no phone, electricity, or mail service, Flora has not been in contact with her city relatives for eleven years.)

3. Why do the zebras and wildebeest in East Africa migrate thousands of miles each year? (The reason for this migration is the fluctuating wet and dry seasonal pattern of this region. During the dry season, the grasses die back. Therefore, herds must migrate north or south, depending on the time of year, to follow the rains that restore the grasses.)

**Suggested Resources**

**Books**

**Web Sites**
- CIA World Fact Book — Kenya
- KenyaWeb.com
  www.kenyaweb.com/
- Africa’s Great Rift Valley
  www.robinsonresearch.com/AFRICA/THE_LAND/Rift_Val.htm
- Serengeti National Park
  www.serengetipark.org/index_2.html
- Africa Face to Face
  www.gorp.com/gorp/location/africa/kenya/afface.htm
To the Family... After you watch this NATURE program, visit the library and look for books about Kenya or Tanzania. Imagine that you are planning a vacation to one of these countries. Where would you go? What kinds of preparations would you need to make?

Complete both activities.

DID YOU KNOW?

Savannas (grasslands) occupy more than 2/5 of Africa.

City Life

What are some of the similarities and differences between city life in Nairobi, Kenya, and Dallas, Texas? Using library resources or the Web, find five similarities and five differences between these two places, looking into the types of businesses, schools, and people in both places as a starting point. Then use the diagram on your left as a model for illustrating what they have in common.

Animals on the Move

Each year, when East Africa's grassy plains dry out, more than two million zebras and wildebeest migrate in search of food. Their journey takes them on a trip that covers almost 2,000 miles. These animals face many challenges, including predators, starvation, and disease. Work with another student to research an animal that migrates across the U.S. You may get some useful information in the Journey North Web site (www.learner.org/jnorth/). Write and illustrate a booklet or multimedia presentation that shares your findings.

These materials were made possible by Park Foundation, Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
Desert Odyssey

At-a-Glance

Theme: Traveling through the Sahara's harsh climate requires careful preparation, adequate resources, and navigational ingenuity.

Program Overview

In the village of Timia in Niger, in western Africa, 9-year-old Adam Illius embarks on his first journey in the Sahara. With his father, a team of men, and over a hundred camels, they trek fifteen hundred miles on foot through the desert. Their destination is Bilma, Niger, where they buy pillars of salt from local merchants, then resell them where salt is scarce. The Sahara, the world's largest desert, is almost as large as the United States. It has the highest recorded temperature in the world: 136 degrees Fahrenheit. Despite the harsh heat, many specialized plants and animals thrive there.

Before the caravan leaves, its members pack food, water, and provisions to enable them to survive for six months in the desert. Adam faces many dangers, including scorpions, snakes, heat stroke, and dehydration. Adam is one of the Tuareg people, famous desert nomads. Going on his first camel caravan is a rite of passage. Although camel caravans have been a way of life for more than a thousand years, their fate is uncertain. In recent years, competing salt traders have used large trucks to get to the markets faster and more frequently.

Objectives

Students will:
- analyze the physical geography of the Sahara.
- examine some survival strategies for the desert.

National Geography Standards, Grades 5-8:
- the patterns and networks of economic interdependence on Earth's surface (Standard 11).
- how physical systems affect human systems (Standard 15).

NCSS Standards
- This program can help students compare similarities and differences in the ways groups, societies, and cultures meet human needs and concerns (NCSS Middle Grade Curriculum Standard 1).

 Viewing Time: One hour (brief video segments may also be used)

Activity Time: Two-Three Class Periods

After viewing the program

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

1. How do the Tuareg people find their way through the desert, where much of the terrain looks the same? (To avoid getting lost, the nomads often use desert landmarks. They also use the stars to help navigate. On a cloudy night, if they're not careful, they can easily get lost. In addition, some of the main paths in the desert are well worn, as they've been traveled for more than a thousand years.)

2. What are some of the desert survival skills that Adam learns on this journey? (Adam learns how to ride and care for his camel and how to respond if he should encounter any rival nomads in the desert. He also learns how to light a fire and use the stars to navigate. At the marketplace, he observes how the other men buy and sell salt.)

3. If Adam or other Tuareg people visited your town or city, what do you think they'd find most surprising? (Open-ended discussion)

4. Compare and contrast Adam's rites of passage to those of a boy his age in the U.S. or in a country of your choice. (Open-ended discussion)

Suggested Resources

Books

Web Sites
Sahara (PBS) www.pbs.org/sahara/
Desert Biome mbnet.mobot.org/pfg/diverse/biomes/desert/index.htm
Sahara Crossers Corner www.eden-foundation.org/sahara/index.html
Journey to North America’s Deserts

There are four deserts in North America: the Great Basin, the Mojave, the Sonoran, and the Chihuahuan. Use an encyclopedia, book, travel magazine, or Website to research one of these deserts. Then illustrate a picture postcard that tells about your visit. Pick a specific date for your journey. What is the climate like at that time of year? What animals and plants do you see?

www.desertusa.com/du_mojave.html
www.desertusa.com/du_sonoran.html
www.desertusa.com/du_chihuahuan.html
www.desertusa.com/du_basin.html

Survival in the Sahara

On his first journey in the Sahara, 9-year-old Adam learns many important lessons about how to travel in this harsh climate. Write and illustrate a guidebook for would-be desert travelers. Your book can include advice on: essential items to pack; how to organize a caravan; how not to get lost by using landmarks, homemade maps, and the stars to navigate; a list of dos and don’ts; what to do in a sandstorm; how to avoid scorpion stings; and so on. As you watch the program, take notes for your guidebook. You can also find helpful information on these Web sites:
- www.desertusa.com/Thingstodo/du_safetytips.html

Crossword with Humps

Until the invention of cars and trucks, camels were essential companions for desert expeditions. Their bodies are well adapted to survival in the scorching heat. If there’s a limited supply of water in the desert, a camel’s kidneys can slow down to limit the amount of water in its urine. And when there’s water available, a thirsty camel can store up to 30 gallons at a time. Work with another student to research some interesting facts about camels. Then create a crossword puzzle to share what you’ve learned with others. In addition to encyclopedias and animal books, this Web site may give some interesting camel trivia: www.arab.net/camels/

Did you know?

The world’s longest river, the Nile, is on the edge of the world’s largest desert, the Sahara.

Journey to North America’s Deserts

There are four deserts in North America: the Great Basin, the Mojave, the Sonoran, and the Chihuahuan. Use an encyclopedia, book, travel magazine, or Web site to research one of these deserts. Then illustrate a picture postcard that has a scene of the desert you selected on one side. On the other side of the card, write a letter describing an imaginary visit. Pick a specific date for your journey. What is the climate like at that time of year? What animals and plants do you see?
- www.desertusa.com/du_mojave.html
- www.desertusa.com/du_sonoran.html
- www.desertusa.com/du_chihuahuan.html
- www.desertusa.com/du_basin.html

These materials were made possible by Park Foundation, Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
**At-a-Glance**

**Theme:** Africa’s tropical rain forest has survived for thousands of years. If the trees continue to be chopped down for timber, can the ancient, indigenous cultures in this area survive?

**Activity Time:** Two–Three Class Periods

**Objectives**

Students will:
- examine how humans have changed the rain forests of Central Africa.
- speculate on how to preserve the culture of the Baka, an indigenous people of the African rain forest.
- observe wildlife found in the tropical rain forest biome.

**National Geography Standards, Grades 5–8:**
- how human actions modify the physical environment (Standard 14).
- how physical systems affect human systems (Standard 15).

**NCSS Standards**
- This program can help students describe the effects of changing technologies on the global community (NCSS Middle Grade Curriculum Standard 9).

**Before Viewing the Program**

Ask students to define what a rain forest is. Explain that in order for an area to be considered a rain forest, it must get more than 80 inches of rain a year. You may wish to find out the total rainfall in your area for comparison. Look up your town or city on the Internet at www.worldclimate.com.

Explain that the world’s tropical rain forests are found, as their name suggests, in “the tropics.” Ask students to use a world map or globe to locate the equator, and the part of Africa that is in the tropics. Point out that the Tropic of Cancer and the Tropic of Capricorn — indicate the area of Earth called the tropics. These lines mark the northernmost and southernmost places on Earth where the sun ever shines directly overhead.

Using the Student Activity Master

Hand out photocopies of the activity master on the opposite page, and preview it with students. On the map on this page, have them use geography resources to (a) identify the boundaries of Cameroon and Ghana, the countries featured in this program, and (b) highlight the area where Africa’s tropical rain forest is located. (For reference, see www.rain-tree.com/graphics/africa.gif)

As they watch the program, ask them to look for examples of how the Baka people’s way of life has changed over the last fifty years.

**After Viewing the Program**

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

1. How has the Baka people’s way of life changed over the last fifty years? (For thousands of years, the Baka thrived in Africa’s rain forests. In the 1960s, the Cameroonian government encouraged the Baka to move out of the forest to small villages. Baka gained access to government-run schools, hospitals, and trading opportunities — but this relocation made it easier for logging companies to cut down the ancient trees.)

2. How has logging changed Ghana? (International logging companies in search of ancient timber cut down most of Ghana’s rain forest. Although the sale of timber brought the Ghanaian government wealth, the loss of the rain forest jeopardized the country’s delicate ecosystems.)

3. Why do you think Annan’s “fantasy coffins” are so popular even though they are very expensive? (Answers will vary.)

**Suggested Resources**

**Books**

**Web Sites**
- CIA World Fact Book 2000 – Cameroon
  www.odci.gov/cia/publications/factbook/geos/cm.html
- A Day in the Life of a Baaka Village
  www.gm.apc.org/livingearth/rainforestdb/People/2.3/2.3.2.html
- Congo Trek (National Geographic)
  www.nationalgeographic.com/congotrek/
- Rainforest Action Network
  www.ran.org/
- World Rainforest Information Portal
  www.rainforestweb.org/
Baka to the Future

In this program, Armand Bamisso discovers that a logger has cut down a huge, ancient tree near the village of Bosquet. The Baka, who have lived in this forest for thousands of years, believe that this area is rightfully theirs. The Baka fear that their way of life will be destroyed if the forests are depleted. At a town meeting, they decide to plead their case to the local Cameroonian government. With a small group of students, organize a role-play debate that represents the following different points of view: the Baka people, the logging company, a Cameroon government leader, and an environmental activist.

Coffins “to Die for”

A creative carpenter in Ghana named Annan makes “fantasy coffins” for a living. These wooden wonders come in the shape of airplanes, luxury cars, giant snails, and more. During this program, he creates a giant banana coffin for the funeral of a Ghana priestess. Select a person from history, a beloved family member, or a friend who has passed away. Then create a sketch for a special “fantasy coffin” that you think this person would have enjoyed and that would honor some aspect of his or her life. Then, write a short paragraph to accompany the sketch, explaining why you selected this “fantasy coffin” for this person.

African Rain Forest Primates

As you watch this program, fill in this chart to compare some of the featured animals. Afterward, use library resources to complete the last column.

<table>
<thead>
<tr>
<th>Species</th>
<th>Where do they live in the rain forest?</th>
<th>What do they eat? How much a day?</th>
<th>Endangered? If so, why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black and white colobus monkey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mona monkey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowland gorilla</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drill (West African baboon)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rain forests cover only about 7% of Earth’s land surface, yet nearly half of the world’s plant and animal species are believed to live there.

To the Family... You are invited to watch NATURE. After you watch the program, investigate how the natural geography of your town or city has changed during the last 100 years. Find an area that used to be forest that now has buildings. Sketch a picture of what this area looks like today and what it probably looked like 100 years ago. Your local historical society may be able to provide resources.
Mountains of Faith

At-a-Glance
Theme: Ethiopia's remote mountains have nurtured many religions and are also a haven for unique wildlife.

Viewing Time: One hour (brief video segments may also be used)
Activity Time: Two-Three Class Periods

PROGRAM OVERVIEW

Ethiopia is isolated from the rest of Africa by majestic mountains. These mountains have provided a haven for some of the world's major religions, including Judaism, Islam, and Christianity. Ethiopians are a deeply spiritual people. Many believe that the Ark of the Covenant, containing the original Ten Commandments, is hidden in this country.

In “Mountains of Faith,” 16-year-old Kibkab Woldemariam attends a church school in Lalibela, Ethiopia. He hopes one day to become a priest. Kibkab's teacher (who is also his father) will decide if Kibkab is ready to participate in Timkat, an important Christian ceremony that attracts thousands to Lalibela.

In another story, a Gurage teenager named Atirsagne from a rural village supports his family by shining shoes in Ethiopia’s capital, Addis Ababa. Atirsagne sends most of his money home so that his father can buy land. He returns home for the most important holiday, Abba Defar, the subject of the third story, is inspired by recurring dreams filled with religious symbolism. Defar devotes his life to building churches, carving them out of solid rock with simple hand tools.

The isolation of Ethiopia’s mountains has fostered the evolution of some unique animal species, including the gelada baboon, lammergeier vultures, and Ethiopian wolves.

OBJECTIVES

Students will:
- analyze how Ethiopia’s mountainous terrain has inspired religious devotion in this area for many centuries.
- observe some of Ethiopia’s unique animal species, such as the gelada baboon.

National Geography Standards, Grades 5-8:
- the characteristics, distributions, and complexity of Earth’s cultural mosaics (Standard 10).

NCSS Standards
- This program can help students understand:
  - the characteristics, distributions, and complexity of Earth’s cultural mosaics (NCSS Middle Grade Curriculum Standard 1).

BEFORE VIEWING THE PROGRAM

Give students a blank map of Africa, such as the online map found at geography.about.com/science/geography/library/blank/bixafrica.htm

Have students use other map resources to identify Ethiopia’s boundaries and draw them onto their blank map. Explain that the northeastern part of Africa is nicknamed the Horn of Africa, because of its unusual shape. Explain that over 80% of Africa’s land above 9,500 feet is located in the Horn of Africa. You may wish to show students a topographical map of Ethiopia so that they can see how mountainous it is.

Using the Student Activity Master

Hand out photocopies of the student activity master on the opposite page, and preview it with students. As they watch the program, ask them to pay special attention to the three stories presented: (1) a young boy in Lalibela who is training to become a priest in the Ethiopian Orthodox church, (2) a teenager who shines shoes in Ethiopia's capital, Addis Ababa, to raise money for his family, who live in a rural village, and (3) a devout man who has devoted his life to building churches by carving them out of solid rock. Encourage students to use the chart on the worksheet as a model for organizing the information.

AFTER VIEWING THE PROGRAM

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

- 1 To prepare for priesthood, what are some tasks that Kibkab has to accomplish? (Kibkab has to learn the ancient language of Ge’ez, which died as a spoken language about 1,000 years ago. He also studies the scriptures and participates in religious festivals such as Timkat.)
- 2 What are some of the ways that the Gurage people use the ensete plant? (Although the fruit of the ensete is not edible, its roots are. Other parts of this banana-like plant are used for building materials, household implements, and even for medicine.)
- 3 Why is the Ethiopian wolf endangered? (The Ethiopian wolf eats a type of rodent found only in the Bale Mountains. Thousands of years ago, there were many more of these rodents. Gradually, as the grasslands dried up, their number decreased. As a result, fewer wolves can survive.)
- 4 If Ethiopia were not surrounded by mountains, how might this country be different? (Answers will vary)

SUGGESTED RESOURCES

Books

Web Sites
CIA World Fact Book 2000 — Ethiopia
World Factbook — Ethiopia

Ethiopia on the Web
www.ethiopians.com

Threatened Species, Including the Ethiopian Wolf
www.wcmc.org.uk/species/data/species_sheets/

The Modern Rock Hewn Church, article about Abba Defar
www.ethiopia.tribune/archives/1999/05/21-05-99/Church.htm
www.wcmc.org.uk/species/data/species_sheets/

Lalibela Churches
www.coba.panam.edu/faculty/dttee/ethiopia/africanjpegs/churchesLL.htm

Lalibela, Ethiopia
www.rjpreston.freeserve.co.uk/text_pages/ethiopia.htm

Mystery of the Lost Ark
www.supersonic.net/ark/page3.htm

Threatened Species, Including the Ethiopian Wolf
www.wcmc.org.uk/species/data/species_sheets/

Lalibela, Ethiopia
www.rjpreston.freeserve.co.uk/text_pages/ethiopia.htm

Lalibela Churches
www.coba.panam.edu/faculty/dttee/ethiopia/africanjpegs/churchesLL.htm

The Modern Rock Hewn Church, article about Abba Defar
archives.geez.org/AddisTribune/Archives/1999/05/21-05-99/Church.htm
Carve It and They Will Come

Amazingly, the stone churches in Lalibela, Ethiopia, were carved out of solid rock, many centuries before power tools were invented. To accomplish this Herculean feat, the builders of these churches relied on simple hand tools, their imaginations, and persistence. Using modeling clay, create a model of a place of worship. You can either mold a replica of an existing cathedral, church, or temple—or design an original structure. Next to your project, include a printed card describing the name of your building and how you designed it.

Three Religious Journeys

As you watch, use a chart like this one to help you organize the information about the Ethiopians featured in this program.

<table>
<thead>
<tr>
<th>NAME</th>
<th>How is his life influenced by Ethiopia's mountainous terrain?</th>
<th>How does he earn a living?</th>
<th>What's an important goal in his life?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kibkab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wodemariam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atirsagne</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abba Defar</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Bunch of Baboons

This program showcases three species that are native to Ethiopia: the gelada baboon, the lammergeier vulture, and the Ethiopian wolf. Select one of these species and create a poster about it. On this poster, add annotations with interesting facts about this animal, as well as some questions that you might ask if you were a biologist studying it in the wild. As an alternative, you can create a brochure advocating the protection of the animal you selected. Here are some Web sites to help you get started:

- Gelada Baboon
  - www.sazoo-aq.org/gelada.html

- Lammergeier Vulture
  - www.pbs.org/edens/bhutan/a_lv.htm

- Ethiopian Wolf
  - www.panda.org/resources/publications/
    - species/underthreat/page12.htm

To the Family...

You are invited to watch NATURE. After this program, discuss as a family what questions you have about Ethiopia. Try to research the answers in the library.

DIID YOU KNOW?

More than 80% of Africa’s land above 9,500 feet is located in the Horn of Africa.
**At-a-Glance**

**Theme:** Survival in the Sahel requires cooperation, persistence, and respect for ancient traditions.

**Viewing Time:** One hour (brief video segments may also be used)

**Activity Time:** Two-Three Class Periods

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**Program Overview**

If the Sahara is like a sea of rock and sand, then the Sahel, its southern edge, is like a sprawling shoreline. In fact, the word “sahel” means “shore” in Arabic. The Sahel’s dry grasslands stretch for 3,700 miles across Africa.

In Djafarabe in Mali, a 14-year-old girl named Aissa Bar awaits the return of Yoro Sisse, her 16-year-old boyfriend. Yoro has been away for eight months with other herdsmen, traveling thousands of miles across the Sahel, transporting more than a hundred of his family’s cattle. He makes this arduous journey on foot and faces many obstacles. Whether Yoro succeeds could affect his marriage plans, since Aissa’s parents will select her husband. If Yoro fails to bring his herd home in peak condition, her parents are unlikely to consider him.

In Tireli, Atime Dogolo Saye is 29 years old, but cannot consider himself a man. This is because he has not yet participated in a Dama, a harvest celebration when a Dogon boy officially is ushered into manhood. Atime pleads with his grandfather to hold a Dama, but his grandfather is hesitant. A local fortune teller cautioned the grandfather that if a Dama were held, the elderly man would die. A shaman regularly feeds and protects these toothy reptiles.

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**Objectives**

Students will:
- compare the rites of passage in African and American cultures.
- observe the unusual interaction between humans and crocodiles in the village of Borkul.
- discuss how cattle herders and farmers cooperate in the Sahel.

**National Geography Standards, Grades 5-8:**
- This program can help students understand:
  - the physical and human characteristics of places (Standard 4).
  - how culture and experience influence people’s perceptions of places and regions (Standard 6).

**NCSS Standards**
- This program can help students understand how the arts, traditions, beliefs, and values contribute to the development and transmission of culture (NCSS Middle Grade Curriculum Standard 1).

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**Before Viewing the Program**

Many students will have heard of the Sahara, even if they don’t know its location. But probably most of them have not heard of the Sahel, the southern edge of the Sahara. Use the enclosed map of Africa to first show where the Sahara is, then point out the approximate location of the Sahel. Explain that the word “Sahel” means “shore” in Arabic. This section of Africa gets its name from the idea that the Sahara is like a giant ocean of sea and rock. The part known as the Sahel is the southern shore, or edge, of the desert.

Using the Student Activity Master
Hand out photocopies of the student activity master on the opposite page, and preview it with students. Define what a “rite of passage” is (a ritual associated with a change of status for an individual) and help students brainstorm some examples of rites of passage in our culture, including graduating from high school, getting a driver’s license, having a bar mitzvah or bat mitzvah, or becoming confirmed. As students watch the program, ask them to pay special attention to rites of passage that the people in this story hope to accomplish.

**After Viewing the Program**

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

1. What are some dangers that Yoro faces during his journey in the Sahel? (Yoro and his cattle may encounter mosquitoes and ticks that carry disease, hyenas that could kill the young calves, and dehydration due to a shortage of water.)

2. Why are there no more than forty crocodiles in Borkul from year to year? (This program speculates that when the crocodile’s numbers grow too large for the local food and water, the reptiles eat each other, thus re-establishing the natural equilibrium.)

3. Why is Atimé’s grandfather hesitant to have a Dama in his village? Do you think his grandfather’s response is reasonable? Why or why not? (Atimé’s grandfather is worried because the village fortune teller believes that the next Dama will herald the grandfather’s death. Answers will vary.)

4. What are some examples of cooperation among the diverse groups of people in West Africa? (When the Fulani men return home at the end of their migration, the local farmers allow the cattle to graze in exchange for free fertilization of the grass. In addition, the Fulani trade dairy products with other cultural groups in exchange for other food and products.)

**Suggested Resources**

**Books**


**Web Sites**
- Fulani People library.thinkquest.org/16645/the_people/ethnic_fulani.shtml
- Djenna Mosque www.sacredsites.com/africa/djenne.html
**Ring Around the Planet**

The vast region between the Sahara and Africa’s savanna is known as the Sahel. Very little rain falls in this zone. The Sahel includes all or parts of the following countries: Senegal, Mauritania, Mali, Burkina Faso, Niger, Nigeria, and Sudan. On the map of Africa on this page, shade in these seven countries, using a world map for reference. Figure out the approximate latitudes of the northern and southern borders of the Sahel. Then, find two other parts of the world that have the same latitudes as the Sahel. Create a chart that compares a place in the Sahel with cities in the other countries. Use library resources such as an almanac or Internet sites such as www.worldclimate.com to help your research.

<table>
<thead>
<tr>
<th>Country/Place</th>
<th>Country/City</th>
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<tbody>
<tr>
<td>Highest Recorded Temperature</td>
<td>fill in</td>
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</tr>
<tr>
<td>Lowest Recorded Temperature</td>
<td>fill in</td>
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</tr>
<tr>
<td>Average Annual Rainfall</td>
<td>fill in</td>
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</tr>
<tr>
<td>3 animals that live in this part of the world</td>
<td>fill in</td>
<td>fill in</td>
</tr>
</tbody>
</table>

**DID YOU KNOW?**

The kola nuts that Fulani girls buy for returning boys were once traded as currency in Western Africa. In the U.S., they are used to make carbonated soft drinks.

**Celebrating Your “Rites of Passage”**

In Dogon society in Africa, in order for a boy to be considered a man, he must participate in a Damaj celebration. In Fulani culture, teenage boys prove their stamina and ability to earn a living by transporting large herds of cattle thousands of miles. Many groups of people have “rites of passage” to celebrate and acknowledge the transition of one phase of life to another. As young adults in the U.S. grow, rites of passage include graduation from school, getting a driver’s license, and so on. Here’s your artistic challenge. Create a mask, dance, or painting that commemorates a rite of passage in your life, or in the life of a close friend or family member. Together with other students, present a showcase of these rites-of-passage creations.

To the Family... You are invited to watch NATURE. After you watch this program, review the various rites of passage presented, and discuss some rites of passage that are a part of living in the U.S.

Complete both activities.

These materials were made possible by Park Foundation, Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
Restless Waters

At-a-Glance
Theme: In Africa's Great Lakes region, determination, flexibility, and resourcefulness play a vital role in shaping the lives of its people.

Activity Time: Two-Three Class Periods
Viewing Time: One hour [brief video segments may also be used]

PROGRAM OVERVIEW
Lake Victoria in eastern Africa has the second largest area of any freshwater lake in the world, exceeded only by Lake Superior in the U.S. Lake Victoria affects the weather of the countries that surround it: Uganda, Kenya, and Tanzania.

Charles Tinkewimeru is a farmer who grows acres of bananas, but for the past several years he has built a fishing business on Lake Victoria. On the tiny island of Kiimi, Charles makes a good living but misses his family, 200 miles away in Uganda. Lake Victoria's fishing industry is now in trouble due to pollution, over-fishing and the lingering effects of the introduction of the Nile perch, which wiped out half of the lake's indigenous species. Charles hears that tourists are interested in a new chimp sanctuary on one of the islands. He contemplates buying a large boat to take tourists to this sanctuary. Charles decides to risk his savings and buy the boat.

The Kilombero Valley in Tanzania is only five hundred miles from Lake Victoria, but its climate is completely different. Here it is either very wet or very dry. Simoneny Ngatimwa and his wife grow rice here. Figuring out when to plant the rice can be difficult. When the farming months are over, the valley attracts wealthy hunters who come to shoot the native buffalo and lions.

OBJECTIVES
Students will:
• Examine how Africa's largest lake affects the climate and commerce of neighboring countries.
• Discuss how introduced species, such as the Nile Perch in Lake Victoria, can sometimes have unintended consequences.

National Geography Standards, Grades 5-8:
• This program can help students understand: how human actions modify the physical environment (Standard 14).

NCSS Standards
• This program can help students describe the role that supply and demand, prices, incentives, and profits play in determining what is produced and distributed in a competitive market system (NCSS Middle Grade Curriculum Standard 7).

BEFORE VIEWING THE PROGRAM
Ask students to find the Great Lakes on a map of the U.S. Then ask a volunteer to use the map to figure out which of the Great Lakes has the largest area [Lake Superior]. This is the largest freshwater lake only in the U.S. but in the world. Explain that the program they are about to see is about the world's second largest freshwater lake — Lake Victoria in Eastern Africa. Have students locate this lake on a map of Africa and name the countries that surround it. Point out that this lake is the main source of the Nile River.

Using the Student Activity Master
Hand out photocopies of the student activity master on the opposite page, and preview it with students. As they watch the program, ask students to pay special attention to the ways in which Lake Victoria affects the economics of the countries that surround it. Encourage students to look for ways in which people need to be resourceful and flexible in order to survive in the ever-changing environment.

AFTER VIEWING THE PROGRAM
Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

1. What qualities make Charles a good entrepreneur? (He is aware of his environment and its changes. In addition, he is always looking for new opportunities, is willing to take risks, and is not easily discouraged. If Charles had quit after his first hard years in the fishing business, he would never have received the lucrative fishing contract from the chicken-feed factory.)
2. Why was the Nile perch introduced to Lake Victoria in the 1950s? What was its effect? (In the 1950s the fish population in the lake was diminishing, so the British colonial government introduced a new, large fish, the Nile perch. Unfortunately, its appetite was large, too. Eventually, this fish wiped out half the native species in the lake! Today the Nile perch itself is in danger.)
3. What strategy does Simoneny (a rice farmer) use to deal with the unpredictability of the rain season? (He sows batches of seed at slightly different times. This way, whenever the rains arrive, some of the rice will survive.)

SUGGESTED RESOURCES
Books

Web Sites
Lake Victoria (ThinkQuest) library.thinkquest.org/16645/the_land/lake_victoria.shtml
Great Lakes Region Fact Sheet (Africa) www.eia.doe.gov/emeu/cabs/eafrica.html
Kenya’s National Parks and Reserves www.gorp.com/gorp/location/africa/kenya/parkindx.htm

Lake Victoria (ThinkQuest) library.thinkquest.org/16645/the_land/lake_victoria.shtml
Great Lakes Region Fact Sheet (Africa) www.eia.doe.gov/emeu/cabs/eafrica.html
Kenya’s National Parks and Reserves www.gorp.com/gorp/location/africa/kenya/parkindx.htm
To the Family... You are invited to watch NATURE. In this program, several of the people take risks in hopes of providing for their family. After you watch this show, discuss some of the risks and sacrifices that parents, grandparents, and other relatives made in order to take care of family members.

Complete one of the following activities.

**The Largest Lakes**

Lake Victoria in eastern Africa is the second largest freshwater lake in the world. The only lake that has a larger area is Lake Superior in the U.S. Lake Victoria belongs to the Great Lakes in Africa; Lake Superior is part of a different set of Great Lakes in the U.S. Compare Lake Victoria to Lake Superior, and research information about exactly where they are located (longitude and latitude), how big they are, their greatest depths, how they were formed, their location, climates, wildlife, current threats, conservation efforts, etc. Create a large chart or illustration that presents what you’ve learned about these two massive lakes.

**Sow What?**

Growing rice requires skill, patience, planning, and good luck. In this program, two rice farmers from Tanzania, Simoney and Amanda Ngwatima, need to plant their rice at just the right time. If the rice is sown too early, a long dry season can kill the crops. But if the rice is sown too late, the seedlings will drown in the flood. Research how rice is sown, grown, weeded, and harvested, then create a presentation of what steps are involved, possible pitfalls, strategies for keeping away animals, and so on. A great Web site for this activity is Riceweb at www.cgiar.org/irri/Riceweb/contents.htm.

**New and Not Improved**

In the 1950s, when Lake Victoria's fishing industry was declining, the British government introduced the Nile perch into the lake. This fish could grow up to six feet long and weigh up to 200 pounds. The good news was that this fish reproduced in large numbers in the lake. But no one anticipated that the Nile perch's hearty appetite would wipe out about half of the lake's native fish species. This mass extinction wreaked havoc with the lake's ecosystem. Over the centuries many species have been imported into the U.S. Some, such as tomatoes, pigs, and honeybees, are considered a success. Others, such as kudzu and gypsy moths, endangered other species. Research an introduced species and create a poster that explains why it was introduced, whether its efforts were successful, and why or why not. Here is a Web site that may be useful.

EPA: Introduced Species
www.epa.gov/maia/html/intro-species.html

These materials were made possible by Park Foundation, Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
At-a-Glance

Theme: The trade winds over the Indian Ocean have helped bring many cultural influences to Africa’s Swahili Coast.

Viewing Time: One hour (brief video segments may also be used)

Activity Time: Two-Three Class Periods

Program Overview

The Swahili Coast stretches along eastern Africa from Somalia to Mozambique. One of its most famous ports is Zanzibar, on the island of the same name off the coast of Tanzania. For more than 2,000 years, Zanzibar was a key destination for trading ships sailing across the Indian Ocean from places such as China and India.

In the village of Bwejuu on Zanzibar, Issa Simai Issa works as a fisherman. But he doesn’t use a boat or even a net. Like many men on the island, Issa swims along the coral reefs and catches octopuses with his hands and simple tools. Exhausted as he is by late afternoon, he finds the energy to play his favorite sport—football. Introduced by the British in the 1870s, football (called soccer in the U.S.) is one of the many foreign imports to find its way to this island. Issa plays for the Leopards, a local team. The Leopards are invited to compete in a match in one of Tanzania’s capitals, Dar es Salaam (the other capital is Dodoma). Although this city is only 40 miles away, the rough seas between Zanzibar and Dar es Salaam make it a perilous trip. To get to the game, the Leopards must hire a dhow. Raising the money for this trip is a challenge, too. Issa’s teammates get the cash by catching rare and elusive reef lobsters. They eventually play in a national stadium before 20,000 cheering fans.

Before Viewing the Program

Have everyone—including yourself—take a deep breath and hold it for as long as possible. Use a stopwatch or second hand of a clock to keep track of the time elapsed. See who is able to hold his or her breath the longest. Explain that in the video they are about to see, a free-diving fisherman who lives on Zanzibar, an island off the east coast of Africa, can hold his breath for up to three minutes at a time. In order to catch octopuses, he swims underwater down to depths of 50 feet. Since these fishermen don’t use boats, they have to tread water at the surface. This means they are often swimming for seven hours a day.

Explain that there are seasonal shifts in wind patterns over the Indian Ocean. For thousands of years, these strong, predictable winds made it possible for ships to sail across the Indian Ocean to trade spices, ivory, gold, and slaves. Explain that these winds have also brought many cultural influences to Zanzibar. Football, or soccer, is another import—in the 1870s, the British brought this game to the island, and today it is wildly popular among the local fishermen.

Using the Student Activity Master

Hand out photocopies of the student worksheet on the opposite page, and preview it with students. As they watch the program, ask them to pay special attention to the many obstacles that the fishermen of Zanzibar have to overcome in order to participate in a soccer game on the mainland of Tanzania.

Objectives

Students will:

• discuss how winds blowing off the Indian Ocean have influenced life on the eastern coast of Africa.
• observe how resourceful fishermen on the island of Zanzibar raise funds to participate in a soccer match in Dar es Salaam.

National Geography Standards, Grades 5-8:

• the physical processes that shape the patterns of Earth’s surface (Standard 7).

NCSS Standards

• This program can help students explain and illustrate how values and beliefs influence different economic decisions (NCSS Middle Grade Curriculum Standard 7).

After Viewing the Program

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

1. How did the Zanzibari Leopards raise the funds to hire a dhow to take them to Dar es Salaam? (They used octopus—

2. What are some dangers that free-divers face in the waters off Zanzibar? (These daring fishermen might be bitten by dangerous creatures such as moray eels. Swimming at depths of 50 feet can also cause their ears to bleed from the water pressure.)

3. How do you think participating in the big soccer game in Dar es Salaam will affect the lives of the fishermen on Zanzibar? (Answers will vary.)

Suggested Resources

Books


[NOTE: The above book is about professional soccer, called “football” in Africa.]

Web Sites

History of Zanzibar
www.allaboutzanzibar.com/indepth/history/id-01-01-01-01.htm
ZanzibarNet History
www.zanzibar.net/history.html
Swahili Language
www.zanzibar.net/swahili.html
Dar es Salaam: City and Port Guide
www.dar-es-salaam.com
Tanzania — CIA World Fact Book 2000
www.odci.gov/cia/publications/factbook/geos/tz.html

The People of Zanzibar
www.allaboutzanzibar.com/indepth/culture/1-people-population.htm
To the Family... You are invited to watch NATURE. After you watch this program, find some books about coral reefs found in North America and some of the plants and animals that live in them. What are some of the reasons that the world’s coral reefs are in jeopardy?

Complete one of the following activities.

It Floats, It Grows, It Makes Ice Cream

Thousands of women on Zanzibar earn a living by farming seaweed in the warm, shallow waters off the island. Write and illustrate a book that tells all about seaweed. What is it? How many different varieties of it are there? What are some of its uses in other products? The following Web sites may help you in your research.

Seaweed
www.aqua.org/animals/species/pralgae.html

The Uses of Seaweed (in products)
www.seaweed.ucg.ie/SeaweedUsesGeneral/SeaweedUses.html

Keeping Their Eyes on the Ball

Many men on the island of Zanzibar are fishermen. But their real passion is soccer. The Zanzibari Leopards are a talented amateur soccer team. After they win the local league, they are invited to compete in a match in Dar es Salaam, Tanzania’s capital. To participate in this game, the Leopards must triumph over a number of obstacles. As you watch this program, put a check mark next to each challenge as they encounter it. Then write down what actions the men take to overcome the obstacles.

CHALLENGE: Win the local championship game on Zanzibar island

CHALLENGE: Raise money to hire a dhow to take the team to the Tanzania mainland

CHALLENGE: Catch the lobsters that hide in the coral

CHALLENGE: Sell the lobsters to the local restaurants

CHALLENGE: Learn to play soccer on a grass field

CHALLENGE: Midfielder Jamal is injured and taken off the field

Dar es Salaam vs. Dodoma

The capital city of Tanzania, Dar es Salaam, was founded as a trading post in 1862 by the sultan of Zanzibar. In the mid-1970s, the country decided to build a new capital at Dodoma. Why was that location chosen? What obstacles have hindered the successful movement of the capital? After you’ve answered these questions, investigate what other African countries have relocated their capitals and why.

DID YOU KNOW?
The island of Zanzibar is made of coral. A colony of coral the size of a soccer ball can take more than 50 years to develop.

These materials were made possible by Park Foundation, Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
Southern Treasures

At-a-Glance

Theme: South Africa's natural resources have brought it great wealth but at an enormous human cost. Today, many South Africans strive to bring hope, equality, and prosperity to all.

Program Overview

South Africa's ancient rocks contain an abundance of gold and diamonds. This country's riches, however, have not been shared equally among its people. In the mines, migrant workers engage in dangerous work for little pay. In the 1940s, the wealthy, white-controlled South African government began a segregationist policy called apartheid. Even though black South Africans make up more than 75% of the nation's population, apartheid denied this majority the right to vote and treated them harshly. Due to worldwide pressures, apartheid fell in the early 1990s. Today, signs of hope can be found in different parts of South Africa.

Each morning, Xoliswa Vanda travels more than two miles below the earth's surface to work in a gold mine. Xoliswa is the first black woman to get a blasting certificate and hopes to become the first black woman mine manager. If she passes her exams, her dream may come true.

Other stories in “Southern Treasures” include: (1) Entrepreneurs attend an auction to purchase six black rhinos for their private game reserve. (2) 82-year-old Feke Kuiper and her sisters make an emotional return to the land where they grew up. (3) A group of South African women make their living by cutting down pine trees that are destroying the Cape Floral Kingdom, endangering the rare flowers.

Objectives

Students will:
- Discuss how South Africa's natural resources have had an impact on its economy and political policies.
- Observe how gold is mined in South Africa.
- Analyze the efforts conservationists are making to preserve South Africa's endangered plants and animals.

National Geography Standards, Grades 5-8:
This program can help students understand:
- the changes that occur in the meaning, use, distribution, and importance of resources (Standard 16).

NCSS Standards
- This program can help students describe the ways family, gender, ethnicity, nationality, and institutional affiliations contribute to personal identity (NCSS Middle Grade Curriculum Standard 4).

Before Viewing the Program

Ask students to locate South Africa on a world map. Explain that this country contains some of the oldest rocks on Earth—billions of years old. These ancient rocks contain large quantities of gold and diamonds. Ask students: “Why do you think gold and diamond products are so expensive?” Part of the answer is that they are rare. In addition, extracting these natural resources from the ground is a time-consuming job that involves a large workforce. Remind students that the gold or diamond objects that are sold in jewelry stores have gone through an elaborate refinement process.

Explain that all the gold and diamonds have made South Africa the wealthiest country on the continent. But this wealth has hardly been spread around evenly. Discuss what “apartheid” was and how South Africa's segregationist policies were changed in the early 1990s.

Using the Student Activity Master
Photocopy and hand out the student activity master on the opposite page, and preview it with students. Explain that this program will feature a number of people who work in a variety of settings in South Africa, such as gold mines and national parks. As they watch the program, ask students to pay special attention to challenges that South Africa faces today. As they watch, have students think about what changes they would propose if they were political leaders there.

After Viewing the Program

Encourage students to discuss the program and share their observations. The following questions may be used for discussion. If showing the program in class, you may wish to pause it periodically to ask these questions.

- The gold mining team lead by Putswa Tekane fills in the underground gaps created by blasting. Why is this job important? (Gold mining in South Africa usually takes place more than a mile below the surface. If the gaps in the rocks weren’t filled in after the blasting, then the weight above these spaces could collapse, probably killing the miners.)

- What inspired the formation of national parks in South Africa? (Big game hunting killed off many of the wild animals in Africa, and ended many of their migration routes. To protect the remaining creatures and restore the migration routes, the government formed national parks. There are currently 11 national parks in South Africa.)

- What problems are imported pine trees causing in South Africa? (The trees are consuming the water supply of plants in the Cape Floral Kingdom, endangering the rare flowers.)

Suggested Resources

Books

Web Sites
Lonely Planet — South Africa www.lonelyplanet.com/destinations/africa/south_africa/
Hopes on the Horizon — South Africa www.phb.org/hopes/southafrica/index.html
To the Family... You are invited to watch NATURE. In this program, you’ll see how Xoliswa Vanda, a black female South African, works hard to overcome a number of obstacles in order to achieve her career goals. You can discuss what qualities make her an effective leader, and identify some steps involved in pursuing the career goals of family members.

Complete one of the following activities.

**Rappin’ about Rhinos**

In this program, two South Africans and their American partners purchase six black rhinoceroses at an auction. These endangered animals will live on the new owner’s reserve, where they will be protected from hunters and will hopefully attract tourists. There are fewer than 3,000 black rhinos left in the world. Conservationists are trying to educate others about these endangered animals. Using library resources, create a list of 10 interesting facts about black rhinos. Then work with one or two other students to write a song that incorporates the information you gathered. If you wish, perform this song for your class, using photos, illustrations, or costumes to support the lyrics. These Web sites may be useful:

- Black Rhinoceros/Animal Bytes
  - [www.seaworld.org/animal_bytes/black_rhinocerosab.html](http://www.seaworld.org/animal_bytes/black_rhinocerosab.html)
- Black Rhinoceros
  - [www.bagheera.com/inthewild/van_anim_rhino.htm](http://www.bagheera.com/inthewild/van_anim_rhino.htm)
- International Rhinoceros Foundation
  - [www.rhinos-irf.org/](http://www.rhinos-irf.org/)
- Rhinoceros Revealed
  - [animal.discovery.com/features/rhinoceros/rhinoceros.html](http://animal.discovery.com/features/rhinoceros/rhinoceros.html)
- SOS Rhino / Facts and Resources
  - [www.sosrhino.org/facts/index.html](http://www.sosrhino.org/facts/index.html)
- Rhinoceros (San Antonio Zoo)
  - [www.sazoo-aq.org/rhino.html](http://www.sazoo-aq.org/rhino.html)

**Going for the Gold... and Diamonds**

Removing diamonds and gold from South Africa’s ancient rocks isn’t easy. It requires careful planning, a team of skilled miners, and powerful explosives. Imagine that you work in either a diamond mine or gold mine in South Africa. Create a series of diary entries that tell about your particular job and the responsibilities of your co-workers. Describe the process involved as well as your emotional response to the challenges you face. To make your imaginary diary as factual as possible, use an encyclopedia to research what’s involved in mining, the different kinds of jobs, and so on. You may find these Web sites helpful:

- How Gold is Mined in South Africa
- How Gold is Mined and Processed
- The Science Behind the Sparkle (Diamonds)
  - [www.pbs.org/wgbh/nova/diamond/sparkle.html](http://www.pbs.org/wgbh/nova/diamond/sparkle.html)

**DID YOU KNOW?**

The mines near Johannesburg have produced more than half the gold ever mined in the world.

These materials were made possible by Park Foundation, Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
SAVANNA HOMECOMING

- **carnivore**: an animal that mostly eats the flesh of other animals
- **custom**: a way of doing things that has been handed down from one generation to the next
- **hunter-gatherer**: a person who gets food by using a combination of hunting, fishing, and foraging
- **migration**: when people or animals move from one location to another for better living conditions
- **predator**: an animal that hunts, kills, and eats other animals for food
- **savanna**: a tropical grassland with scattered trees

VOICES OF THE FOREST

- **biodiversity**: the variety found among animals and their environments
- **biome**: a plant and animal community that covers a large geographical area and shares a similar climate
- **canopy**: the top layer of a rain forest formed by the thick leaves of very tall trees
- **culture**: the learned behaviors of a society, including its art, music, food, beliefs, and rituals
- **ecosystem**: a large community of plants and animals living together in places such as a pond, a forest, or an ocean
- **equator**: an imaginary line around the earth that is an equal distance from the North and South Poles
- **tropical rain forest**: a forest of tall, deciduous evergreen trees, close to the equator, which receives more than 80 inches of rain a year

DESSERT ODYSSEY

- **caravan**: a group of people who travel together for safety and companionship through difficult territory
- **dehydration**: one of the dangers of desert travel, in which the body loses too much water
- **dune**: a mound or ridge of loose sand that has been deposited by the wind
- **navigate**: to follow a course toward a destination
- **nomads**: groups of people who move from one place to another in order to make a living
- **oasis** *(oases pl.)*: a fertile, green area in a desert fed by underground water
- **rite of passage**: a ritual associated with a change of status for an individual

MOUNTAINS OF FAITH

- **ensete**: banana-like plant used by the Gurage people for food, building materials, and medicine
- **pinnacle**: highest point, such as the peak of a mountain
- **sentries**: soldiers who stand guard to protect something valuable
- **Maskal**: an Ethiopian celebration of life, fertility and family
- **Tabot**: a sacred replica of the Ten Commandments
- **Timkat**: the Ethiopian feast of the Epiphany, celebrating the baptism of Christ
**LOVE IN THE SAHEL** program 5

- animism: religious belief that there are spirits throughout nature
- henna: a reddish brown dye made from leaves of the henna plant
- Fulani: the Fula people, nomadic herders of Northern Nigeria
- millet: a grass cultivated for its grain, which is used for food
- rite of passage: a ritual associated with a change of status for an individual
- shaman: a priest or priestess who uses magic to cure illness and predict the future
- totem: an animal or plant that serves as an emblem of a family or clan

**RESTLESS WATERS** program 6

- colonialism: when a geographic area is ruled by a foreign power
- extinction: the situation in which the last individual of a species dies
- predator: an animal that hunts and eats other animals
- sow (past tense: sown): to plant seeds in the ground

**SOUTHERN TREASURES** program 8

- apartheid (pronounced uh PAR tide): apartheid was the South African government's policy of strict racial segregation from 1948 until 1991.
- commodity: any goods that are bought, sold, or traded
- conservation: the act of protecting or caring for natural resources or endangered species
- endangered species: a kind of animal or plant that is in danger of dying out forever (becoming extinct)
- HIV: the virus that can cause AIDS. Today, 1 in 5 South Africans is infected with HIV.
- migrant worker: a person who travels for temporary employment; typically such workers work long hours for very little pay
- mining: the process of taking minerals such as gold, diamonds, or coal from the earth

**LEOPARDS OF ZANZIBAR** program 7

- algae: simple organisms that live in oceans, lakes, rivers, ponds, and moist soil
- coral: a limestone formation created in the sea by millions of tiny animals. When these die, they leave limestone "skeletons" that create coral reefs.
- dhow: a ship with lateen sails used along the coasts of Arabia, India, and eastern Africa
- lagoon: a shallow body of water, separated from the open sea by a coral reef or a sandy ridge
- monsoon: a seasonal wind that blows over the northern part of the Indian Ocean and East Asia. The monsoon blows continually from the southwest from April to October; then it blows from the northeast from November to March.
- Swahili: the language that evolved to facilitate trade in East Africa
Acknowledgements

This guide was produced by Thirteen/WNET New York Educational Publishing Department
Educational Resources Center
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Special thanks to the National Geographic Society for providing the two-sided map featuring "Africa's Natural Realms" and "Africa Today."

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AFRICA is a co-production of Thirteen/WNET New York’s NATURE series and National Geographic Television in association with Tigress Productions Limited and Magic Box Mediaworks, Inc.

This teacher’s guide was supported in part from a grant from the National Geographic Society Education Foundation.

NATURE is produced for PBS by Thirteen/WNET New York.

AFRICA is made possible in part by Park Foundation.
Major corporate support is provided by Canon U.S.A., Inc., Ford Motor Company, and TIAA-CREF.
Additional support is provided by the Corporation for Public Broadcasting and by the nation’s public television stations.

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Cover Photo: © Michael Lewis