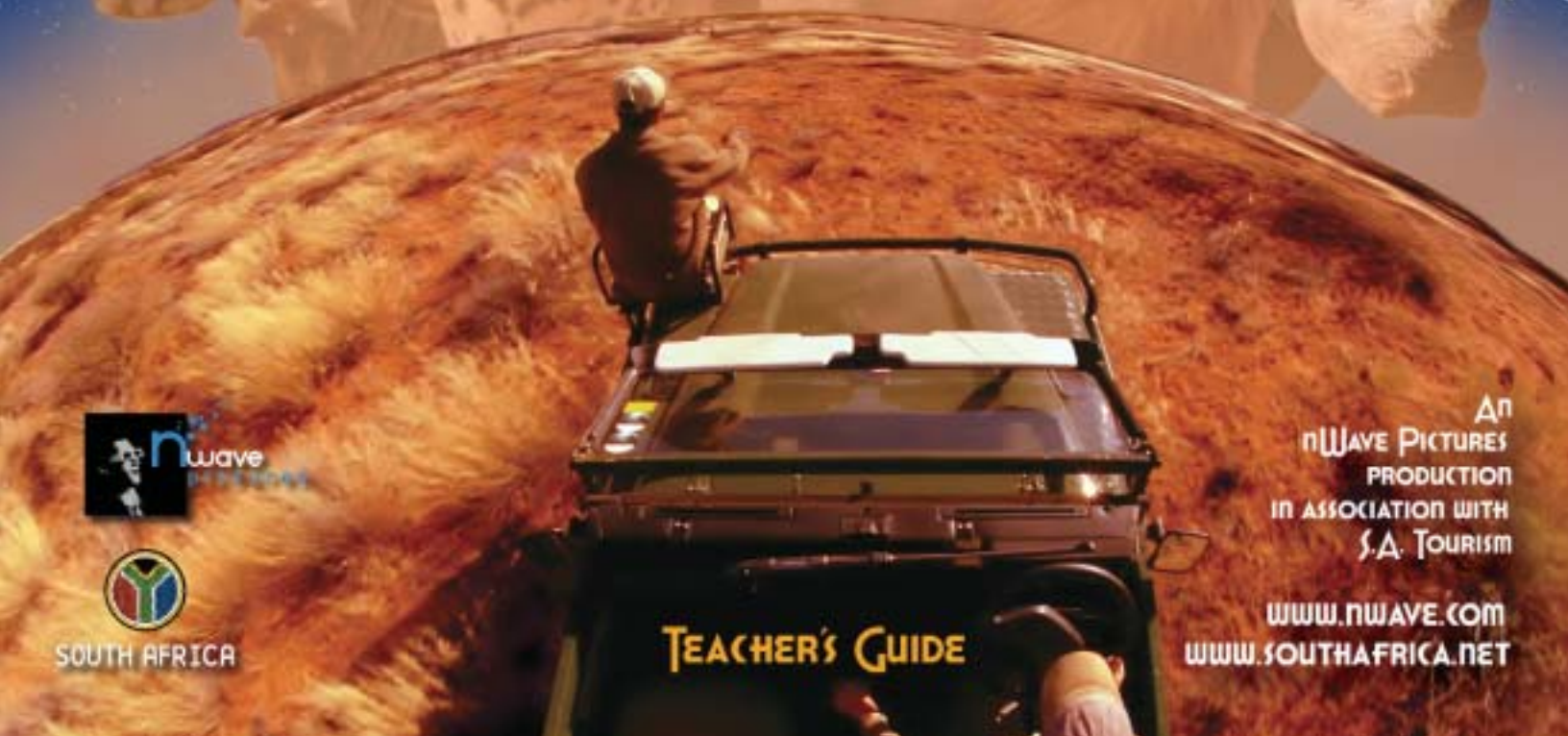


TAKE THE TRIP OF A LIFETIME

WILD SAFARI 3D

A SOUTH AFRICAN ADVENTURE



SOUTH AFRICA

AN
nWAVE PICTURES
PRODUCTION
IN ASSOCIATION WITH
S.A. TOURISM

TEACHER'S GUIDE

WWW.NWAVE.COM
WWW.SOUTHAFRICA.NET

DEAR EDUCATOR:

For many of us, Africa is a distant place—exotic, foreign, and home to wild animals unique to this fascinating continent. Now, however, there is an opportunity to get “up close and personal” on safari with the animals of South Africa in a new 40-minute giant-screen film from nWave Pictures, *Wild Safari 3D: A South African Adventure*. Through stunning 3-D photography, viewers will feel as though the animals are close enough to touch.

Led by South African zoologist Liesl Eichenberger from the Shamwari Game Reserve, viewers go in search of South Africa’s “Big Five”—the African elephant, rhino, Cape buffalo, leopard, and lion. To find these often elusive animals, we travel to some of South Africa’s most famous national parks and game reserves while discovering the beauty of a country that has the greatest variety of ecosystems of any on the African continent.

This teacher’s resource guide developed by Young Minds Inspired (YMI) for nWave Pictures, based on the film *Wild Safari 3D: A South African Adventure*, will assist in meeting educational goals based on U.S. national standards for students in grades 5-8 in science and social studies while at the same time expanding student understanding of geography, ecology, and history. Teachers of students ages 8-11 should adapt the material to meet your students’ abilities. Prepared with the help of professional educators like yourself, this material was designed to be used in conjunction with viewing *Wild Safari 3D: A South African Adventure*; however, some activities can be used on their own. Please feel free to share the material with other teachers at your school, and to modify and duplicate the copyrighted activity sheets to suit your students’ abilities.

Sincerely,
Mark Katz
President
nWave Pictures Distribution

OVERALL PROGRAM OBJECTIVES

- To portray the “Big Five” animals of South Africa as brought to life on screen in *Wild Safari 3D: A South African Adventure*, and to foster an appreciation of conservation efforts aimed at protecting them
- To motivate students’ interest in the animals, habitats, and geography of South Africa and the unique environments found there
- To develop student skills in science, social studies, geography, language arts, and history

Please see the individual activity instructions for activity goals.

TARGET AUDIENCE

This program has been designed, with teacher input and modifications, for students ages 8-14. Suggestions are included where applicable for adapting the activity to younger students (8-11) and older students (12-14). You may choose to have students work in teams for some activities.

HOW TO USE THIS GUIDE

- Review the materials and schedule them into your classroom lessons. Screen the film at your local giant-screen theater to use it with students.
- Photocopy and distribute the three student activity masters. The teacher’s guide pages contain the answers to the activities. Before beginning each activity, invite students to design essential questions of interest in relation to South Africa’s geography and history (**Activity 1**), its animals (**Activity 2**), and the importance of conservation (**Activity 3**).
- Use the resources on the back cover of the guide to facilitate research. Challenge students to work cooperatively in sharing research so they can learn from each other.
- Use the **Related Activities** individually or in sequence for further exploration and discussion of the concepts presented.

FILM SYNOPSIS

Wild Safari 3D: A South African Adventure offers viewers the ultimate giant-screen 3-D adventure of going on safari without ever leaving the comfort of their local cinema. The beauty of 3-D photography puts the audience in the driver’s seat along with zoologist Liesl Eichenberger as she goes in search of South Africa’s “Big Five”—the African elephant, rhino, Cape buffalo, leopard, and lion. Viewers will experience the plight of creatures and their resurgence from the brink of extinction as they travel from the lush grasslands of the Eastern Cape to the arid desert of the Kalahari through the wonders of giant-screen 3-D technology, developing a greater appreciation of why protecting these spectacular and exciting animals has become a priority in South Africa.

Educational Goals	Activity		
	1	2	3
Geography: Places and regions	•		
Social studies: People, places and environments	•		
Social studies: Time, continuity and change	•		
Language arts: Using viewing skills/strategies to interpret visual media	•	•	•
Science: Life science	•		
Science: Population and ecosystems		•	•
Science: Diversity and adaptation of organisms		•	•

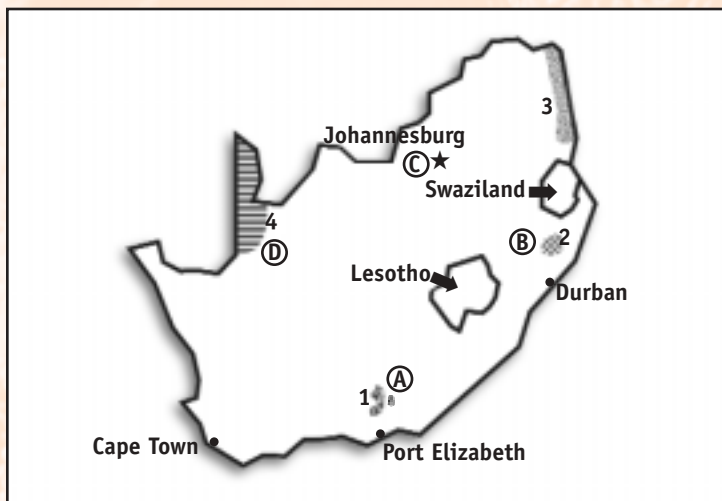
ACTIVITY 1 ON SAFARI TO SOUTH AFRICA!

Goal: To orient students to South Africa and the parks seen in the giant-screen film *Wild Safari 3D: A South African Adventure*, and to associate the locations with some events in South Africa's history

PART A. WHERE THE ANIMALS LIVE

Have students review the small map showing South Africa and its neighboring countries, then brainstorm and name as many other countries in Africa as they can. What interests them about a South African safari? How and where do they think they might see exotic animals such as elephants or rhinos? Have them research and then number on the larger map the locations of the three parks and desert seen in the film as noted below:

Point out the tremendous diversity of land types in the parks of South Africa—the temperate forest of **Addo-Shamwari (1)**; the tropical rain forest of **Hluhluwe-Umfolozi (2)**, and the varied terrain of the **Kruger (3)**, which includes woods, savannah, and river ecosystems. In the film, we also see the red dunes and limited vegetation of the **Kalahari (4)**,



one of the world's largest and driest deserts. Tell students that these special places are where some of South Africa's most famous animals can be found because they have conditions that make up the ecosystems needed in order for the animals to live.

Have students define "environment." Have they ever seen animal tracks such as those made by birds and squirrels in the environment near their home? Encourage them to look for animal tracks at home, and help them draw a comparison with how trackers in South Africa find animals such as lions and leopards by means of scouting their tracks in the wild.

PART B. WHAT CAME BEFORE

Have students work together to find these answers. Share the following information as appropriate for the ages of your students (locations shown on map at left):

A. Khaya Lendaba, near Addo-Shamwari, an arts and culture village spotlighting the Xhosa, the second largest black group in South Africa and the only people there never defeated by another tribe. Nelson Mandela belongs to this ethnic group.

B. Ulundi, near Hluhluwe-Umfolozi. The capitol of Zululand, Ulundi was the site of the final battle between the British and the Zulu tribe in January 1879. The British ruled South Africa until 1910, when the Union of South Africa was formed.

C. Johannesburg, founded largely as a result of the discovery of gold in 1886. By 1895, almost 100,000 people lived there. To work the mines, white landowners used forced black labor.

D. The Kalahari Desert. The Bushmen of the Kalahari are small, with lighter skin than many of the other African tribes. Their knowledge of botany has won them the respect of both whites and blacks in South Africa.

RELATED ACTIVITY

Have students develop a South Africa travel brochure or poster describing what safari visitors might expect to see there. They can begin by showing each park's location, climate, etc. The class can be divided into teams, with each team responsible for one of the parks, plus the Kalahari Desert.

ACTIVITY 2 THE "BIG FIVE" – UP CLOSE AND PERSONAL

Goal: To foster critical thinking strategies by having students research and analyze the "Big Five" animals' habits, appearance, and traits so they can correctly pair them with the areas in which they live as introduced in **Activity 1**, and to spark student inquiry in learning more about an animal of their choice

PART A. WHO AM I?

This can be a pre-viewing activity before seeing the film *Wild Safari 3D: A South African Adventure*, as a way to pique interest, or it can be completed afterwards, to reinforce learning. Have students work on the **Who Am I?** game individually, in pairs, or in two teams to research information on the "Big Five." The first team with the correct answer wins that round and can start the next one. Older students may enjoy making up additional questions for the class.

Answers:

1. Lion, Kalahari Desert
2. Rhinos, Hluhluwe-Umfolozi
3. African elephant, Addo-Shamwari
4. Leopard, Kruger National Park
5. Cape buffalo, Hluhluwe-Umfolozi

PART B. MY OWN ANIMAL PROFILE

Divide students into five groups, and have each group choose a different animal from the "Big Five." Acceptable answers are coded below as **Y** for younger students or **O** for older students. Begin by asking students what they think makes their animal especially interesting to them. Tell students to keep their research sources on hand for use in **Activity 3**.

1. Description of the animal

Y: Size, coloring, and distinctive traits, such as the African elephant's large ears

O: When the animal hunts, what it eats, and its reproduction habits

2. Photograph or picture

Y: Find a photograph in a book or on the Internet, or draw a picture.

O: Find a photograph, especially showing the animal in its natural setting. Is it a solitary or social animal?

3. Habitat and climate

Y: Descriptive words ("lush" habitat, "dry" climate, etc.). Guide students in naming the correct park.

O: Specific habitat, such as forest, desert, or grassland, and amount of rainfall and yearly temperature range.

4. One or two interesting facts

Y/O: Have students research answers to questions of their own interest.

Additional facts about the “Big Five”:

- **Lion**—lives in groups called prides, which usually include five to ten females with their young and two or three males. Females do the hunting, mostly at night so that they can catch large prey.
- **Rhino**—the white rhino is larger and less aggressive than the black rhino and has a square lip for eating grass. The black rhino has a pointed lip for eating leaves.
- **African elephant**—produces about 150 kilograms of dung each day. It is the job of the flightless dung beetle to clean it up. Dung beetles are very important to the ecology of the Addo-Shamwari region.
- **Leopard**—one of the shrewdest of the large cats, it is capable of catching and eating prey larger than itself. A nocturnal hunter, it leads a solitary life, climbing trees and dragging its prey—small animals and

medium-sized antelopes—along with it so another animal doesn’t get its catch.

- **Cape buffalo**—one of the most unpredictable and dangerous animals of South Africa. They travel in herds of from a few hundred to several thousand. Grass is the mainstay of their diet, but at certain times of the year they eat plants as well.

RELATED ACTIVITY

In their travel brochure or poster, have students work within their groups to add the appropriate animal portrait or profile to the description of the area in which the animal lives.

ACTIVITY 3 YOU'RE A PARK RANGER!

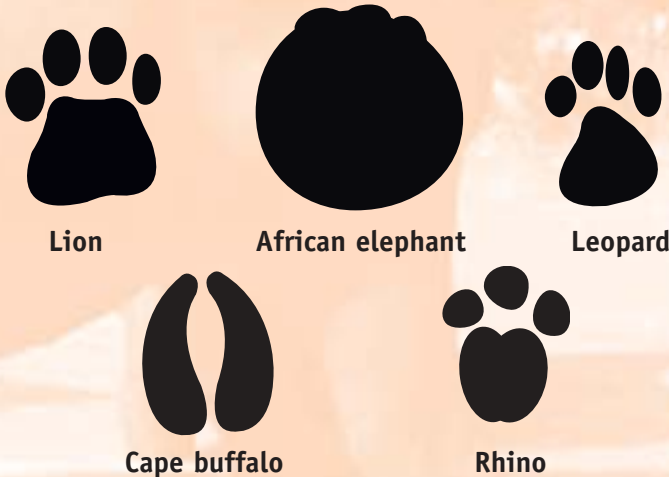
Goal: To help students make a broader connection between the “Big Five” and the environmental conditions necessary for their survival, to engage student interest in tracking animals, and to trace conservation efforts as an ongoing concern in South Africa

Younger students may work in their animal groups, while older students can complete their charts individually. **Sample answers:**

PART A. WHERE ARE THE ANIMALS?

Knowing more about an animal than just its appearance in order to spot it in the wild is especially important in South Africa, where habitat and hunting skills play vital roles. For this activity, have students continue to work within their animal groups and expand on research done for **Activity 2**. Remind students about the animal tracks found in their own neighborhood environment. What is most interesting to them about leading a group on safari to see their particular animal?

PRINTS OF THE “BIG FIVE” ANIMALS
(not shown to scale)



PART B. CONSERVATION—THEN AND NOW

Conservation has been an important part of South African life since the early part of the 20th century. As humans took over more of the land and hunted more of South Africa’s wildlife, it became clear that special efforts would have to be made to protect these animals. Before they start the activity, ask students in each animal group what they think the status of their animal is (threatened, safe, etc.)

After students have completed their chart, review the answers with them. Point out that some animals are more at risk than others but that conservation ensures the preservation of all these animals. Although their numbers are greatly reduced from what they once were, without the system of parks and preserves, many animals would be extinct. Do students know of animals elsewhere in the world under threat of extinction?

ANIMALS	When Conservation Began	Why Conservation Began	How Successful Has Conservation Been?
African Elephant	1931	In 1931, only 11 elephants were left in South Africa.	Very successful. 350 elephants now live in Addo-Shamwari.
Rhino (white and black)	White rhino: about 1900 Black rhino: about 1930	Numbers decreased drastically because of hunting. By 1900, only 20 white rhinos were left in Hluhluwe-Umfolozi; by 1930, only about 150 black rhinos were left.	Somewhat successful. Today there are about 1,600 white rhinos and 370 black rhinos in Hluhluwe-Umfolozi.
Cape Buffalo	Late 1800s	Numbers decreased due to a cattle disease.	Very successful. Herds are numerous. Outside of parks, Cape buffalo often raid farms.
Leopard	Placed in reserves in the 1960s, but many still live in the wild.	Hunted for their skins in the 1960s; about 50,000 were killed in eastern Africa.	Very successful. Leopards are considered under pressure but not at risk.
Lion	About 1948	Expansion of the human population into the lion’s habitat; some hunting	Somewhat successful. Lions are considered vulnerable, not endangered; they number between 30,000 and 100,000.

RELATED ACTIVITY

Have students research the goals of the conservation program behind one of South Africa’s parks or game preserves. They can investigate the effect that reintroduction of certain species has had on the park and the overall effect of conservation on South Africa’s economy.

ACTIVITY I On Safari to South Africa!

PART A. WHERE THE ANIMALS LIVE

Welcome to South Africa, home to some of the most spectacular animals on the planet. Like zoologist Liesl Eichenberger in the exciting new giant-screen film *Wild Safari 3D: A South African Adventure*, you are about to go on safari through four of South Africa's nature preserves to find South Africa's "Big Five"—the African elephant, rhino, leopard, Cape buffalo, and lion. Before you begin your journey, let's look at the big picture, right. Can you name some other African countries?



4. From the varied terrain of the Kruger, head southwest to the **Kalahari**, one of the world's largest and driest deserts. Most of the Kalahari is in Botswana, which borders South Africa. Red dunes are prominent, and shrubs and small trees dot the landscape. The rains fall in spring and early summer, and temperatures reach 70 degrees C°.

On the map of South Africa below, number each of the areas you will be visiting, following this itinerary:

1. Begin at the **Addo-Shamwari** region, in the south. This park is not too warm and not too cold, and it rains all year long. The region experiences all four seasons, with summer lasting from November to March, and winter from July into August.

2. Travel northeast and you'll be in a hot, rainy tropical area. You're approaching **Hluhluwe-Umfoluzi**. From mountains to the north to open savannah to the south, this park has as much as 97 centimeters of rain between September and April. The dry season extends from May to August.

3. Continue traveling north until you reach the vast **Kruger National Park**, which spans 19,000 square kilometers. You can see it all here—woods, savannah, and lush vegetation growing along each of Kruger's six rivers. The best time to travel to this park is in the winter months, when animals gather at the limited number of watering holes.

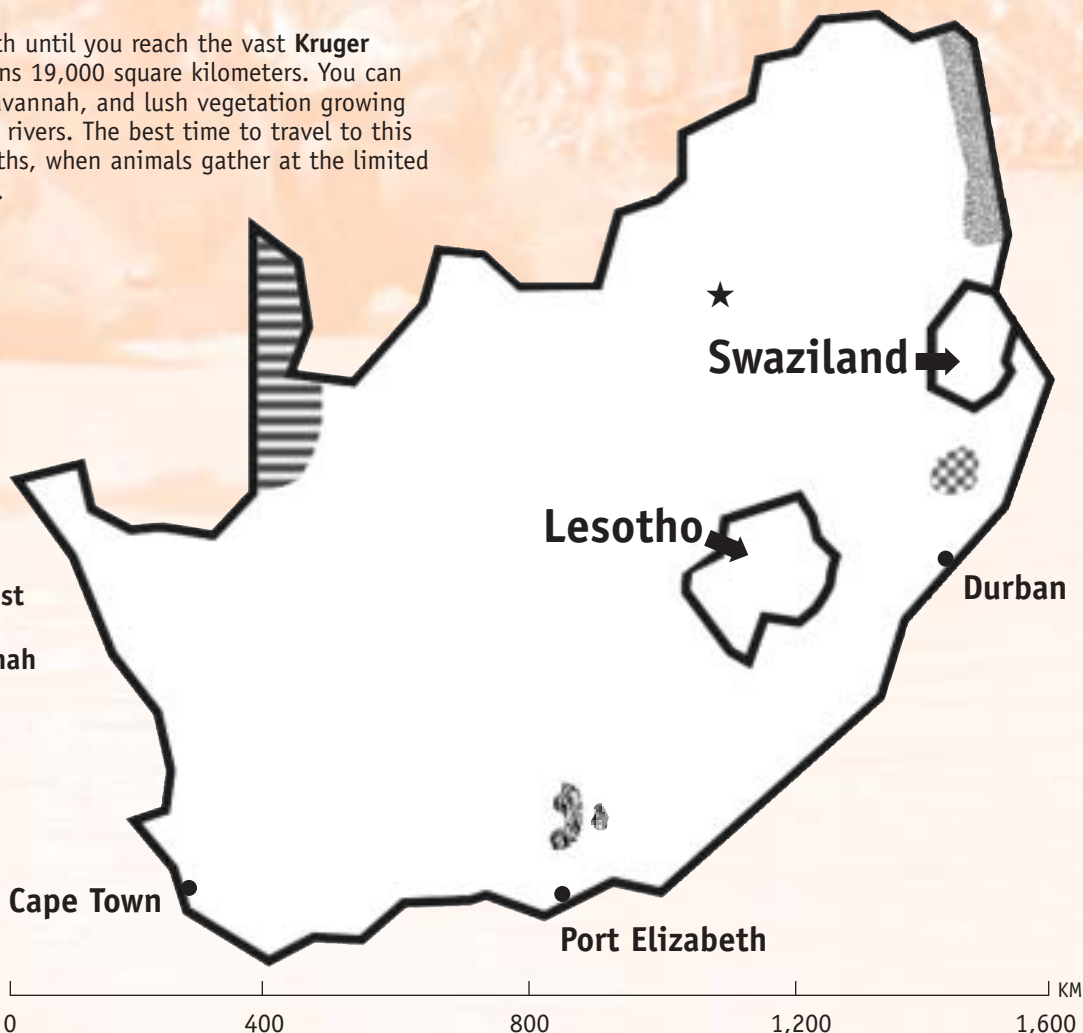
PART B. WHAT CAME BEFORE

In addition to being home to the most amazing animals on Earth, South Africa also has a fascinating past. Find these sites in South Africa's history and label each place on the map with its letter.

- A. Home to the Xhosa people, whose ancestors first entered Africa in about 300 A.D.
- B. Site of the uprising of the Zulus against the British; also the capitol of Zululand, site of South Africa's largest black tribe, in 1879
- C. Site where gold was discovered in 1886, when white landowners forced black people to work the mines
- D. Site of the Bushmen, oldest tribe in South Africa. In the movie *Wild Safari 3D: A South African Adventure*, it is the Bushmen who know how to use clues left from animals—tracks and droppings—to locate the animals that are hardest to find.

Key to Topography

- Temperate Forest
- Tropical Rain Forest
- Woods and Savannah
- Desert



ACTIVITY 2 THE “BIG FIVE” – UP CLOSE AND PERSONAL

PART A. WHO AM I?

What animals live in South Africa? There are many different kinds, but most people who travel there to go on safari hope to see the “Big Five”—the African elephant, black and white rhino, Cape buffalo, leopard, and lion. To learn a little about each one, read the clues given below. Then use them to figure out who the animal is and which area it lives in.

Animals

- African elephant
- Rhino
- Leopard
- Cape buffalo
- Lion

Parks/Nature Preserves

- Addo-Shamwari
- Hluhluwe-Umfolozi
- Kruger National Park
- Kalahari Desert

1. This animal can live where it is really hot, and it can go for several weeks without drinking anything. With its yellow fur, the animal blends into its surroundings. Because it is so hot, this animal’s coat is lighter than that of other members of its species.

Who am I? _____

Where do I live? _____

2. This animal can be either black or white, and it has been hunted so much that it almost became extinct. While its eyesight and hearing are weak, this animal has an excellent sense of smell.

Who am I? _____

Where do I live? _____

3. This animal is the largest land animal on Earth. It also has the biggest ears. By flapping its ears, this animal can lower its body temperature by as much as 3 degrees Celsius.

Who am I? _____

Where do I live? _____

4. This animal hunts at night, and it can be very difficult for predators to see. Its spotted fur camouflages it well in the tall grass. Humans often have to use additional clues to catch a glimpse of this elegant animal.

Who am I? _____

Where do I live? _____

5. This animal is one of the most vicious on Earth. While the animal feeds on grass and is not a meat-eater, it can be unpredictable if it is taken by surprise. This animal has killed more game hunters than any other animal in Africa, so it’s best to steer clear of this creature.

Who am I? _____

Where do I live? _____

PART B. MY OWN ANIMAL PROFILE

Do you have a favorite animal of South Africa? There is so much more to learn about each one. With your group, find some interesting facts about one of the “Big Five.” Follow these steps to develop a profile of your animal. Use more paper if you need it.

1. Animal’s name and brief description:

2. Find a photograph of your animal and place it here or on the other side of the paper—or, draw a picture instead.

3. In which park or area does your animal live? What are the surroundings and climate like?

4. What do you want to know about your animal? For example, do you know how much lions sleep? (Answer: between 16 and 20 hours a day!) Pick a question you’re curious about, and answer it here:

ACTIVITY 3 YOU'RE A PARK RANGER!

In the new movie *Wild Safari 3D: A South African Adventure*, Liesl the zoologist takes us on a tour of four areas in South Africa. She and some trackers show us the “Big Five.” Now it’s your turn to take charge. Imagine that you are a park ranger taking visitors on safari to see the animal you chose to study. You’ll need to know all about your animal and also why animal conservation has become so important in South Africa.

5. What clues does your animal leave behind? In the film *Wild Safari 3D: A South African Adventure*, we learn about animal tracks. Can you figure out which track belongs to which animal? Write the animal’s name below the track.

PART A. WHERE ARE THE ANIMALS?

Many people think that all they have to do is show up, and the animals will appear. But that is not the case. To find them, you need to know where they live and what their habits are. Trackers can help you, too. These are people who trace the locations of animals by their paw prints and droppings. To make sure your visitors won’t be disappointed, build on the research you did in **Activity 2** and answer these questions:

1. Which animal are you looking for? _____

2. Where does the animal live—in the grassland, forest, mountains, desert, savannah, or near rivers?

Each of these environments is an **ecosystem**, a complex community of living and nonliving things that are dependent on each other.

3. How is the animal you are looking for dependent on living and nonliving things in its environment? For example, how often does the animal need to drink? Can it find watering holes? Is the animal’s habitat changing and, if so, how? How is the animal affected?

4. What does your animal eat? When does it hunt?





5. When is the best time of the year and best time of the day to find your animal? Why?

PART B. ANIMAL CONSERVATION

Many of the animals in South Africa are now or have been in the past endangered or at risk for extinction. Environmentalists have worked hard for a long time to protect and conserve them. To help your visitors understand, develop this chart describing conservation efforts for each of South Africa’s “Big Five.” Rate how successful conservation has been as follows: very successful, somewhat successful, or limited success. Use more paper if you need it.

ANIMALS	When Conservation Began	Why Conservation Began	Conservation Success?
African Elephant			
Rhino (white and black)			
Cape Buffalo			
Leopard			
Lion			

RESOURCES FOR TEACHERS

The "Big Five"

www.botany.uwc.ac.za/Envfacts/facts/rhinos.htm
www.szgdozent.org/cats/a-leopd.htm
www.zoo.org.au/exhibits/lionsconservation.htm

South African Maps and History

www.library.northwestern.edu/africana/map/ (clickable map of Africa)
www.lonelyplanet.com/mapshells/africa/south_africa/south_africa.htm
www.safari.co.za/africa_xhosa.html
http://lala.essortment.com/kalaharibushmen_rgdL.htm
www.gateway-africa.com/tribe/zulu_tribe.html
www.places.co.za/html/kaya_lendaba.html
www.eyesonafrica.net/south-african-safari/shamwari.htm (Khaya Lendaba)
www-cs-students.stanford.edu/~cale/cs201/apartheid.hist.html

South African Parks/Game Reserves

www.game-reserve.com/south-africa_addo.html
www.game-reserve.com/south-africa_hluhluwe-umfolozi.html
www.kruger2canyons.com

Conservation and Ecology

www.ngo.grida.no/soesa/nsoer/issues/land/ (effects of population growth on the ecosystem)
<http://washingtontimes.com/upi-breaking/20040410-100745-3471r.htm> (success of conservation efforts)
www.panda.org/about_wwf/what_we_do/climate_change/stories/ (conserving the lions of the Kalahari)

Books

- *A Field Guide to the Animal Tracks of Southern Africa*, by Louis Liebenberg. Cape Town and Johannesburg: David Philip Publishers, 1990.
- *A History of South Africa*, third edition, by Leonard Monteath Thompson. New Haven: Yale Nota Bene Publishing, 2001.
- *Africa's Vanishing Wildlife*, by Chris and Tilde Stuart. Washington, D.C.: Smithsonian Books, 1996.



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President/Joel Ehrlich • Publisher/Roberta Nusim • Writer/Marilyn Fenichel • Editor/Jane E. Fieberts • Art Director/Paul Fisher

Reviewers

Robert C. Bergstrom, Communication Arts Consultant, Allison Park, PA
James Butler, educator (math, science, history), Holy Family Middle School, Hillcrest Heights, MD
Michelle Sale, educator and science curriculum writer, Washingtonville Middle School, Washingtonville, NY

nWave Pictures Distribution

President/Mark E. Katz

34 East Putnam Avenue, Suite 103, Greenwich, CT 06830

Tel: 203-661-5678 • Fax: 203-661-5556

E-mail: nwavemk@attglobal.net



SOUTH AFRICA

www.southafrica.net

RESOURCES FOR STUDENTS

The "Big Five"

<http://funktymunky.co.za/animalfacts.html>
<http://wildnetafrica.co.za/envirokids/ourbig5/index.html>
www.wildnetafrica.com/africa/africa.html
www.nationalgeographic.com/okavango/matching/index.html (track-matching game for related types of animals)

South African Maps and History

www.library.northwestern.edu/africana/map/ (clickable map of Africa)
www.historyforkids.org/learn/africa/history/khoisan.htm
www.madison.k12.wi.us/tnl/detectives/kids/KIDS-000927.html#4 (written by students for students)
<http://pbskids.org/africa/myworld/ngaka.html> (scrapbook by African children about life in Africa)

South African Parks/Game Reserves

www.game-reserve.com/south-africa_addo.html
www.game-reserve.com/south-africa_hluhluwe-umfolozi.html

Books

- *Africa Calling, Nighttime Falling*, by Daniel and Kimberly M. Adlerman. Watertown, MA: Charlesbridge Publishing, 2001.
- *African Animals*, by Caroline Arnold. New York: William Morrow and Company, Inc., 1997.
- *African Elephants: Giants of the Land*, by Dorothy Hinshaw Patent. New York: Holiday House, 1991.
- *Endangered Savannah Animals (Endangered Animals series)*, by J. David Taylor. New York: Crabtree Publishing Co., 1992.
- *The Bushmen of the Kalahari*, by H.P. Steyn. Vero Beach, FL: Rourke Publishing, 1989.

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www.nwave.com

Find out more about *Wild Safari 3D: A South African Adventure* and other exciting nWave Pictures productions.



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