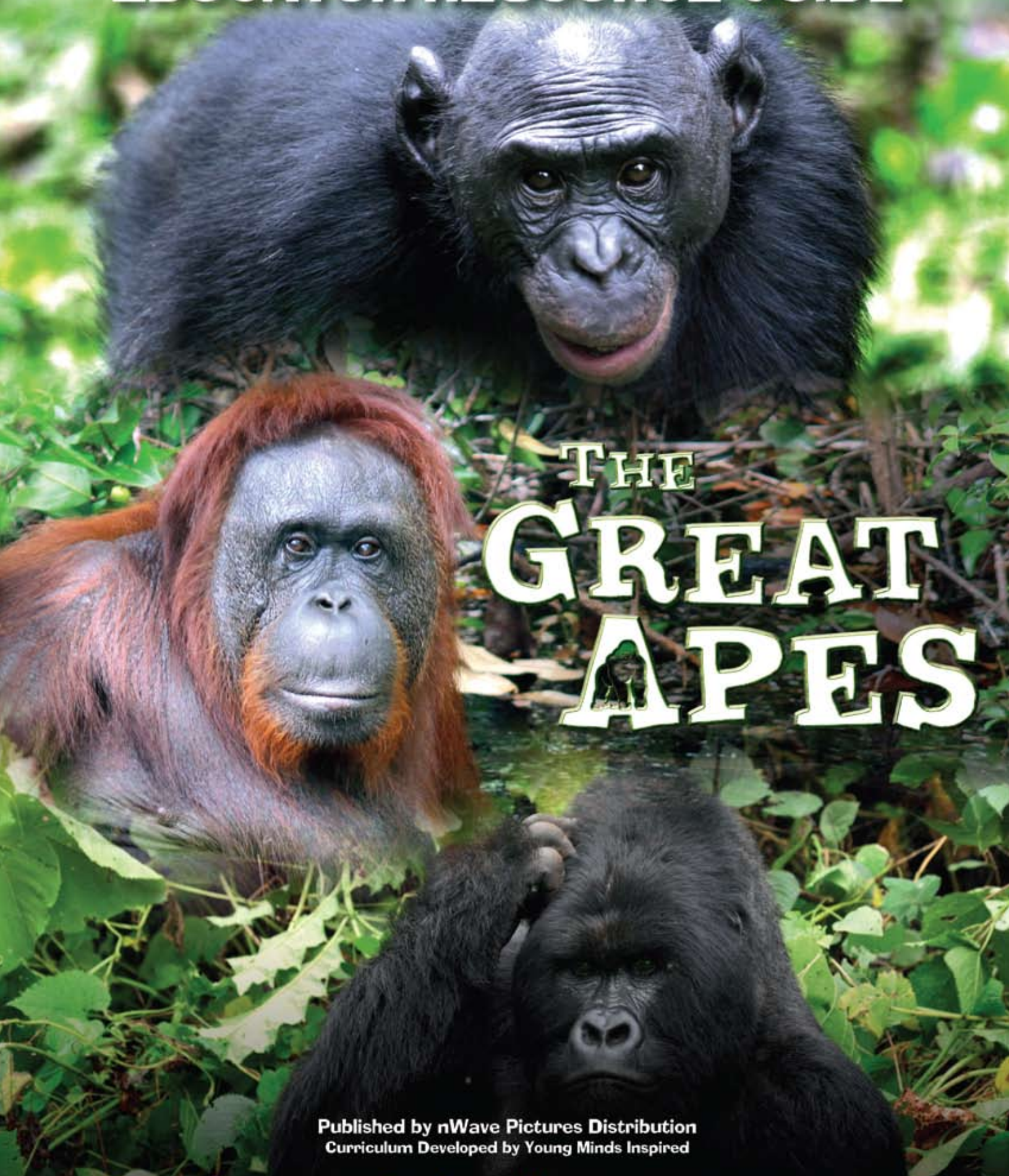
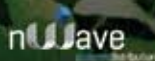


EDUCATOR RESOURCE GUIDE



THE GREAT APES

Published by nWave Pictures Distribution
Curriculum Developed by Young Minds Inspired



GreatApes.nWave.com

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Screen Queensland

A Message from the Filmmakers

The first time you enter the presence of one of the great apes, it is a moment so special and magical that the experience changes you. It was my privilege to take a camera crew into their natural habitats — among the ancient trees of the forest — and to connect with these magnificent creatures, our closest relatives in the animal world. And now we bring the wonder and beauty of the great apes into your classroom!

Each of the great apes is unique, and has a different demeanor. Every time I saw another species, it became my newest favorite. The gorillas are quiet and the babies look like fluffballs. And the chimps are so active and emotional, whereas the bonobos are sweet natured, diffusing conflict before it escalates. The solitary orangutans are wonderfully acrobatic, living mostly in the tree canopies, but with such intelligent and contemplative expressions. However, the fact that we could get so close with our cameras is an indication of some of the dangers posed to their very survival. Deforestation and the illegal pet trade are the greatest threats to the apes. My hope is that by seeing the apes in their natural habitat, through films like *The Great Apes 3D*, people will learn to appreciate them as wild animals and will work to preserve their world.

I have always been in awe of the apes, from the strength and quiet majesty of the silverback gorillas, to the comical orange babies of the orangutans with their bad hair days. All the apes seem to have endearing “human” qualities. By filming these apes in 3D, we’ve immersed you in their world, in the forests they so desperately rely on for sustenance and to raise their families. When we see their intelligence, the community spirit of some species, and the range of behaviors from gentle to aggressive, there is so much we can still learn about them and about ourselves.

It wasn’t easy filming the great apes with big, heavy 3D cameras, but every minute was a treasure. When watching this film, perhaps you and your students will feel what it’s like to be in the jungle, walking deep into the vegetation, and catching a glimpse of these quiet, sentient beings as they welcome you into their forest homes. By sharing with the world how special and rare the apes truly are, I believe we can all become better stewards of the forests they rely upon for their very survival.

Holly Carroll, Biologist, Conservationist and Presenter



Credit: Ben Cunningham

Film Synopsis

The Great Apes 3D brings us face to face with some of the world’s rarest primates. Featuring chimpanzees, bonobos, orangutans, and the magnificent mountain gorillas, the film captures the emotional connection we all experience when encountering such extraordinary creatures. This is the mesmerizing odyssey of Holly Carroll, a passionate zoologist who explores the dense rainforests and remote jungles of Africa and Indonesia to study the lives of these intelligent and curious animals. Walking in the footsteps of her lifelong heroes, Dr. Dian Fossey and Dr. Jane Goodall, Holly also highlights some of the challenges the great apes face in their increasingly threatened habitats.

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Educator Introduction

This Educator Resource Guide is designed for use with students who view the nWave Pictures Distribution film, *The Great Apes 3D*. The guide includes classroom activities for students in grades K-3 and corresponding activities for students in grades 4-8, plus an additional activity for students of all ages and a word search puzzle that can be used with students as you see fit.

Educational Objectives

- To introduce students to the features and characteristics of the different species of great apes featured in the film.
- To inform students about where the great apes live by examining the range and habitats of the different species.
- To encourage students to explore the varied social structures of the different species and what roles are played by the apes within their social organizations.
- To demonstrate to students the similarities and differences between the learning abilities of humans and great apes by simulating an experiment on memory abilities.
- To make students aware of the potential impact of humans on the habitats of the great apes and to brainstorm ways to limit that impact.

Pre-Viewing Discussion Questions

- Create a KWL graphic organizer on the chalkboard/whiteboard, with columns labeled "What I KNOW Already," "What I WANT to Find Out," and "What I LEARNED." Fill in the first column by asking students what they already know about the great apes. Do they know the difference between monkeys and apes? (Monkeys are generally smaller and have tails.) Do they know which species are

Alignment with U.S. Science Standards

| | Grades | | Activities | | | | |
|--|--------|-----|------------|---|---|---|---|
| | K-3 | 4-8 | 1 | 2 | 3 | 4 | 5 |
| Unifying concepts and processes in science | | | | | | | |
| Systems, order and organization | x | x | | | x | | |
| Science as inquiry | | | | | | | |
| Understanding about scientific inquiry | x | x | | | | x | |
| Science in personal and social perspectives | | | | | | | |
| Characteristics and changes in populations | x | x | x | | | | x |
| Life Science | | | | | | | |
| Life cycles of organisms | x | x | x | | | | x |
| Characteristics of organisms | x | x | x | | | | |
| Organisms and environments | x | x | | x | | | |
| Diversity and adaptations | x | x | x | x | | | x |
| Regulation and behavior | x | x | | | x | | |
| Populations and ecosystems | x | x | | | x | | x |

Alignment with Next Generation Science Standards

| | Grades | | Activities | | | | |
|---|--------|-----|------------|---|---|---|---|
| | K-3 | 4-8 | 1 | 2 | 3 | 4 | 5 |
| Life Sciences | | | | | | | |
| Structure, Function, and Information Processing | x | x | x | | x | x | |
| Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment | | x | | x | x | x | x |
| Social Interaction and Group Behavior | | x | | x | x | | x |

classified as great apes? Invite students who have seen apes at a zoo to describe their behavior and what different types of apes look like. Then fill in the second column of the organizer by asking students what they want to find out about great apes. Prompt discussion with suggestions such as, "What they eat," "How they grow up," and "How they live." Conclude by having students copy the organizer so they can fill in the final column after they have seen the film.

- Show students the habitats of great apes on a globe or map. Ask them to describe the climate they expect to find there.
- How are apes like humans? How are apes portrayed in movies, books, or on TV?

Post-Viewing Discussion Questions

- Return to the KWL graphic organizer by creating a "What I LEARNED" column on the chalkboard/whiteboard. Have students contribute facts and insights from their own notes. What fact about great apes most surprised the students? What part of the film made them want to learn even more?
- Use the film to clarify students' understanding of the difference between the various species of great apes as well as the similarities of all great apes to humans.

TEACHING NOTES

Activity 1: Meet the Great Apes

For Grades K-3

This activity invites students to act as scientists in order to identify images and take field notes for the different species featured in the film. Have students match each picture with the characteristics of the species. Once students have done the matching, they can add their own field notes based on what they learned by watching the film.

Answers: 1-C; 2-E; 3-D; 4-A; 5-B

Follow Up: Have students create similar “field notes” for humans: what we eat, how we walk, where we live etc., and then create a Venn diagram comparing humans to one of the great ape species.

For Grades 4-8

This activity engages students’ research skills to create a detailed profile of one of the great apes. Students can use the online resources on page 19 as well as other resources to learn more about one of the species of great apes and fill out the profile template. Display the profiles on a bulletin board celebrating the great apes and inspiring others to get involved with conservation.

Answers: 1-C; 2-D; 3-E; 4-A; 5-B

Follow Up: Have students use the profile headings to list the characteristics of humans and create a Venn diagram comparing humans to the great apes species they researched. Display these along with the great apes profiles to show some of the similarities we share with our closest relatives.



GRADES K-3

Activity 1: Meet the Great Apes

In the exciting new film *The Great Apes 3D*, scientist Holly Carroll introduces us to the fascinating apes whose lives and habitats are threatened in Africa and Asia. See how much you know about these primates. Match the picture of the great ape with the field notes describing that species. Then use what you learned to add your own field notes.



1. Bonobo



2. Western Lowland Gorilla



3. Eastern Mountain Gorilla



4. Orangutan



5. Chimpanzee

Field Notes

A. ____

- live almost their entire life in the tree canopy
- opposable thumbs (like humans) and curved feet for gripping branches
- slow and awkward walkers

Add your own notes:

B. ____

- most intelligent of the great apes
- omnivores (eat animals, plants, and fruits)

Add your own notes:

C. ____

- red lips and long parted black hair
- sometimes walk upright and can spend up to four hours a day in the water

Add your own notes:

D. ____

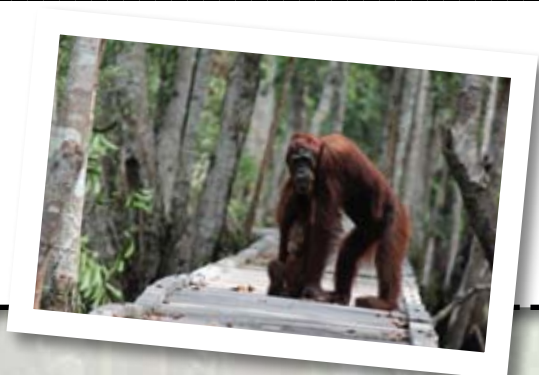
- largest of the great apes
- live in family groups
- rarely seen drinking water because they get their hydration from the 60 pounds of vegetation they eat each day

Add your own notes:

E. ____

- red hair on top of head
- knuckle walkers
- superb tree climbers

Add your own notes:



Activity 1: Meet the Great Apes

In the exciting new film *The Great Apes 3D*, scientist Holly Carroll introduces us to the fascinating apes whose lives and habitats are threatened in Africa and Asia. See how much you know about these primates. Match the picture of the great ape with the field notes describing that species. Use your own research as well as the information in the film to create a profile of one of the species you learned about. Cut your profile out along the dotted line below and display it on a Meet the Great Apes bulletin board.



1. Bonobo



2. Western Lowland Gorilla



3. Eastern Mountain Gorilla



4. Orangutan



5. Chimpanzee

Field Notes

A. _____

- live almost their entire life in the tree canopy
- opposable thumbs (like humans) and curved feet for gripping branches
- slow and awkward walkers

B. _____

- most intelligent of the great apes
- omnivores (eat animals, plants, and fruits)

C. _____

- red lips and long parted black hair
- sometimes walk upright and can spend up to four hours a day in the water

D. _____

- red hair on top of head
- knuckle walkers
- superb tree climbers

E. _____

- largest of the great apes
- live in family groups
- rarely seen drinking water because they get their hydration from the 60 pounds of vegetation they eat each day

My Great Apes Profile

| | |
|--|--|
| Name of species | |
| Appearance | |
| Feeding habits | |
| Social structure | |
| Habitat location and characteristics | |
| Characteristic or habit that is most similar to humans | |
| Other information/special adaptations | |

TEACHING NOTES

Activity 2: The World of the Great Apes

The great apes live primarily in Africa, with one species living in Asia. While their habitats are similar, there are differences between the specific areas within the jungle or rainforest where each species makes its home. The reproducible activity sheets display maps of the territories of the different species for students to use in exploring the world of the great apes.

For Grades K-3

This activity gives students the tools to explore the territories of the great apes. Have students use the maps to compare the territories and answer the questions on the activity sheet. Students can then use what they learned in the film to fill out an observation chart showing where Holly Carroll looks to find each species — high in the trees, on the ground, even in the water. Finally, students can use the other side of the activity sheet to draw a picture or write a description of the habitat of one species based on what they learned in the film.

Answers:

- Bonobo — on the ground (possibly walking upright), traveling in the treetops, wading in the water
- Western lowland gorilla — knuckle-walking on the ground, climbing trees for food
- Eastern mountain gorilla — usually on the ground, occasionally in trees, sometimes near farmland
- Orangutan — high in the tree canopy, rarely on the ground
- Chimpanzee — about the same amount of time on the ground and in the trees

Follow Up: Talk with students about what makes up their own “habitat.” Where would a scientist like Holly Carroll look for humans to cluster if she visited your hometown? Students can think about what features of the apes’ bodies help them in their habitat and ask what it is about the human body that is adapted for our lifestyles. Students can draw side-by-side pictures — one of a great ape and one of themselves — with labels identifying features adapted for each habitat.

For Grades 4-8

In this activity, students compare the territories of each great ape. First have students use the map to identify where the territories of some species of great apes overlap. Discuss how the species might interact in these common areas. Then divide students into small groups and assign them one of the five species. Have each group use the map scale to estimate the size of that species’ territory. Students can then research online to find the approximate population for the species and use this information to compare population density for all the species in a classroom discussion.

Answers:

- Bonobo — on the ground (possibly walking upright), traveling in the treetops, wading in the water
- Western lowland gorilla — knuckle-walking on the ground, climbing trees for food
- Eastern mountain gorilla — usually on the ground, occasionally in trees, sometimes near farmland



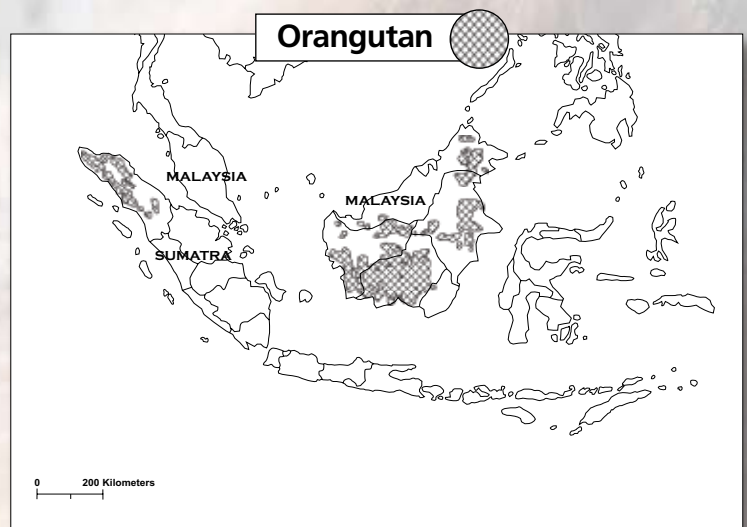
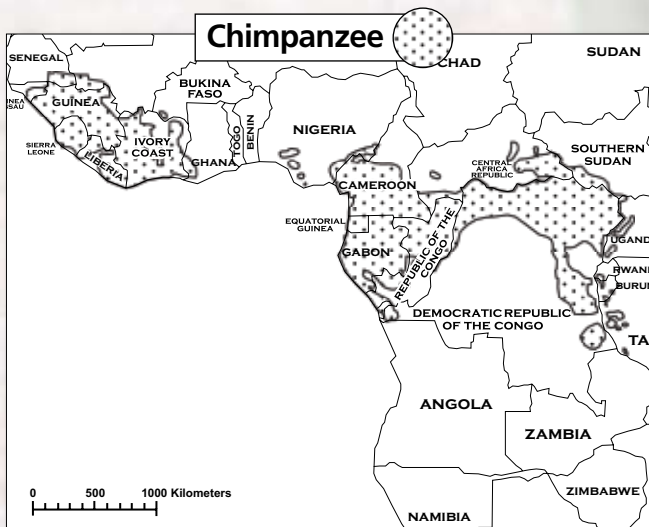
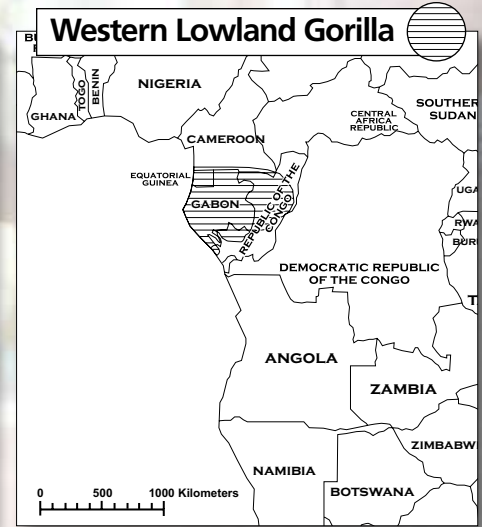
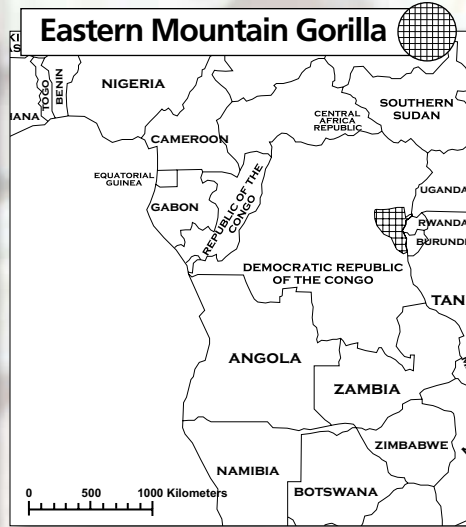
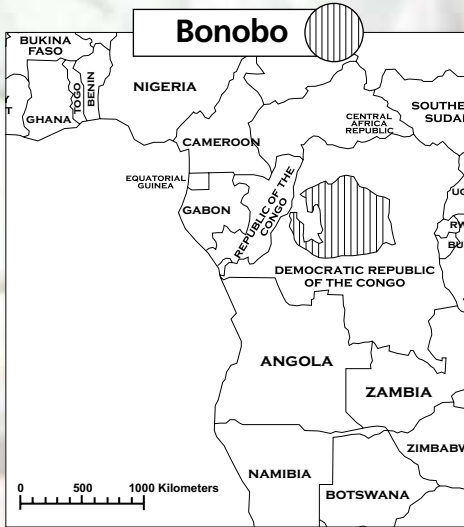
- Orangutan — high in the tree canopy, rarely on the ground
- Chimpanzee — about the same amount of time on the ground and in the trees

Follow Up: How does the population density of the various great apes compare to that of humans in your town? Invite students to consider how their lives would be different if their town had the same density as the territories of the great apes. Students can think about what features of the apes’ bodies help them in their habitat and ask what it is about the human body that is adapted for our lifestyles.

| Species | Appx. Size of Territory | Population |
|--------------------------|----------------------------|--------------------|
| Bonobo | 255 square km. | 10,000 to 50,000 |
| Western lowland gorilla | 311 square km. | Up to 100,000 |
| Eastern mountain gorilla | 116 square km. | 800 |
| Orangutan | More than 1,217 square km. | 48,500 |
| Chimpanzee | 9,842 square km. | 150,000 to 250,000 |

Activity 2: The World of the Great Apes

As you learn in the film *The Great Apes 3D*, the great apes live mostly in Africa, with only orangutans living in Asia. These maps show the range of each species. Study the maps to identify which of the great apes live in the same area.



Which of the great apes live in the same area?

In the film, Holly Carroll needs to know not just where to go to find the great apes but also where to look for them once there. Do they live high up in the trees? On the ground? In the water? Use the chart below to record your observations from the film about where Holly would find each species.

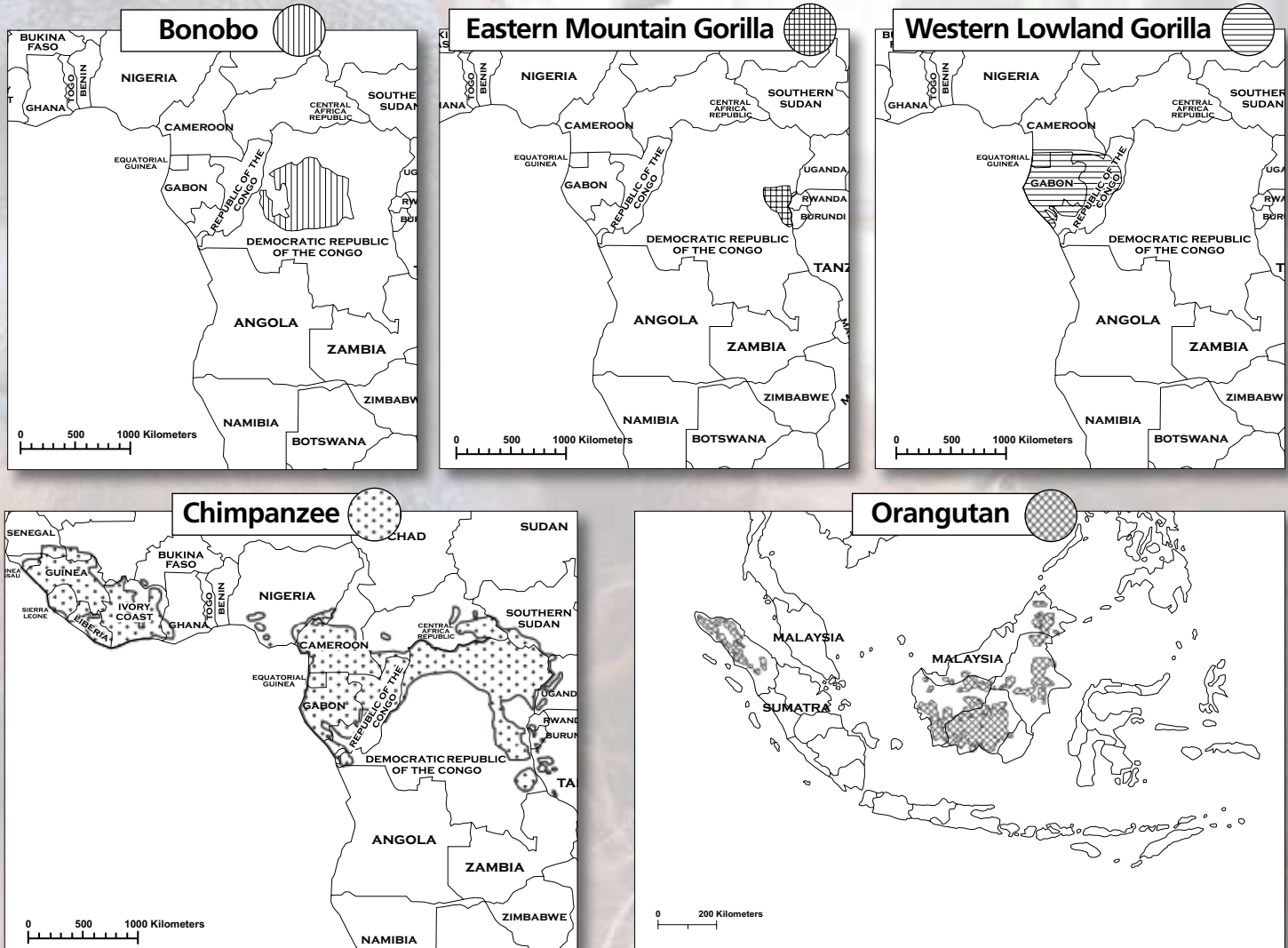
| Species | Where to Find Them |
|--------------------------|--|
| Bonobo | <input type="checkbox"/> on the ground <input type="checkbox"/> in the trees <input type="checkbox"/> in the water |
| Western lowland gorilla | <input type="checkbox"/> on the ground <input type="checkbox"/> in the trees <input type="checkbox"/> in the water |
| Eastern mountain gorilla | <input type="checkbox"/> on the ground <input type="checkbox"/> in the trees <input type="checkbox"/> in the water |
| Orangutan | <input type="checkbox"/> on the ground <input type="checkbox"/> in the trees <input type="checkbox"/> in the water |
| Chimpanzee | <input type="checkbox"/> on the ground <input type="checkbox"/> in the trees <input type="checkbox"/> in the water |

Use the back of this paper to write a description or draw a picture of the habitat for one of the great apes, based on what you saw in the film.

Activity 2: The World of the Great Apes

All the great apes live in the rainforests of central Africa except for the orangutan, which lives in the jungles of Sumatra and Borneo in Asia. Even though the species are closely related and their habitats are similar, the apes are different from one another. Each species has physical characteristics that make it best suited to its environment, even in cases where their territories overlap.

The maps below show each species' territory. Use the maps to identify which species of the great apes inhabit the same area. Do you think these species might interact in this overlapping habitat? Why or why not?



Now use the scale given on the maps to find the approximate area in square kilometers of each species' territory. Then, working with your group, locate the population figures for the species you were assigned to research at http://wwwf.panda.org/what_we_do/endangered_species/great_apes/. Divide the population by the area to find the population density (individuals per square kilometer.) Then go online to find the area and population of your town or your state and calculate the population density for where you live.

Compare your town's population density to that of the various great apes. How would your life be different if your population density was the same as theirs?

What are the closest towns or cities to each of the apes' habitats? What impact do you think it has if the apes are living close to, or even sharing, their habitat with humans?

What features of the apes' bodies, or behavior adaptations, help them in their habitat? Compare this to how the human body is adapted for our lifestyles.

TEACHING NOTES

Activity 3: Great Apes Families

One of the most startling similarities between humans and great apes is the existence of social structures. In this activity, students learn more about these social structures and investigate the roles played by apes of different ages and genders.

For Grades K-3

Have students complete the activity based on what they learned from the film. Then use the information in the chart at right to lead a discussion exploring the different family structures of the great apes.

Answers:

- Bonobo — female-centered
- Gorilla — male-centered (male-centered apes include chimpanzees as well)
- Orangutan — solitary

Follow Up: Invite students to think about what roles each member of their family plays. Start the discussion with these questions: Who works outside the home? Who cooks? Who cleans up? Then encourage students to think of other roles and which family member is responsible for each.

For Grades 4-8

The activity sheet provides an opportunity for students to identify which type of social structure is practiced by each species by filling in column 2 in the table. After students complete this part of the activity, use the information in the chart above to lead a discussion exploring the different social structures of the great apes. Then, divide students into small groups to discuss the benefits and drawbacks of each social structure for the survival of the species. Students can then write their ideas in columns 3 and 4.

| | Males | Females | Young |
|-----------------|---|---|--|
| Male-centered | Act as the leader of the group, deciding where to go, when to rest; the alpha male is the father to most of the youth | Have babies and take care of young, groom the alpha male; status depends on length of time within group | Play and learn to be independent, stay with mothers for several years |
| Female-centered | Try to bond with the dominant females to get a higher rank | Alpha, or dominant, female in group is based on bonds made, age, and number of offspring, especially male offspring | Stay with mother in group for several years, then venture out on their own |
| Solitary | Live alone, interact with others only for mating | Live alone or with younger offspring | Live with mother for several years, then alone |

Answers:

- Male-centered — chimpanzee, eastern mountain gorilla, western lowland gorilla
- Female-centered — bonobo
- Solitary — orangutan

Follow Up: Great apes are known to practice their social structure even in captivity. Use the following writing prompts to encourage students to expand on what they learned in the film and from their discussions by writing an essay on the pros and cons of each type of structure:



Western Lowland Gorilla baby

- Could a species survive with another social structure? Why or why not?
- What environmental changes might cause a shift in social structure for a particular group?

Activity 3: Great Apes Families

The great apes you meet in the film live in different kinds of families, just like people. Look at the pictures of the different species of great apes. Draw a line from each species to the description of its family. Then color the pictures.



Bonobo



Gorilla



Orangutan

A male is the leader of my family.

I like to live alone.

A female is the leader of my family.



Chimpanzee

Activity 3: Great Apes Families

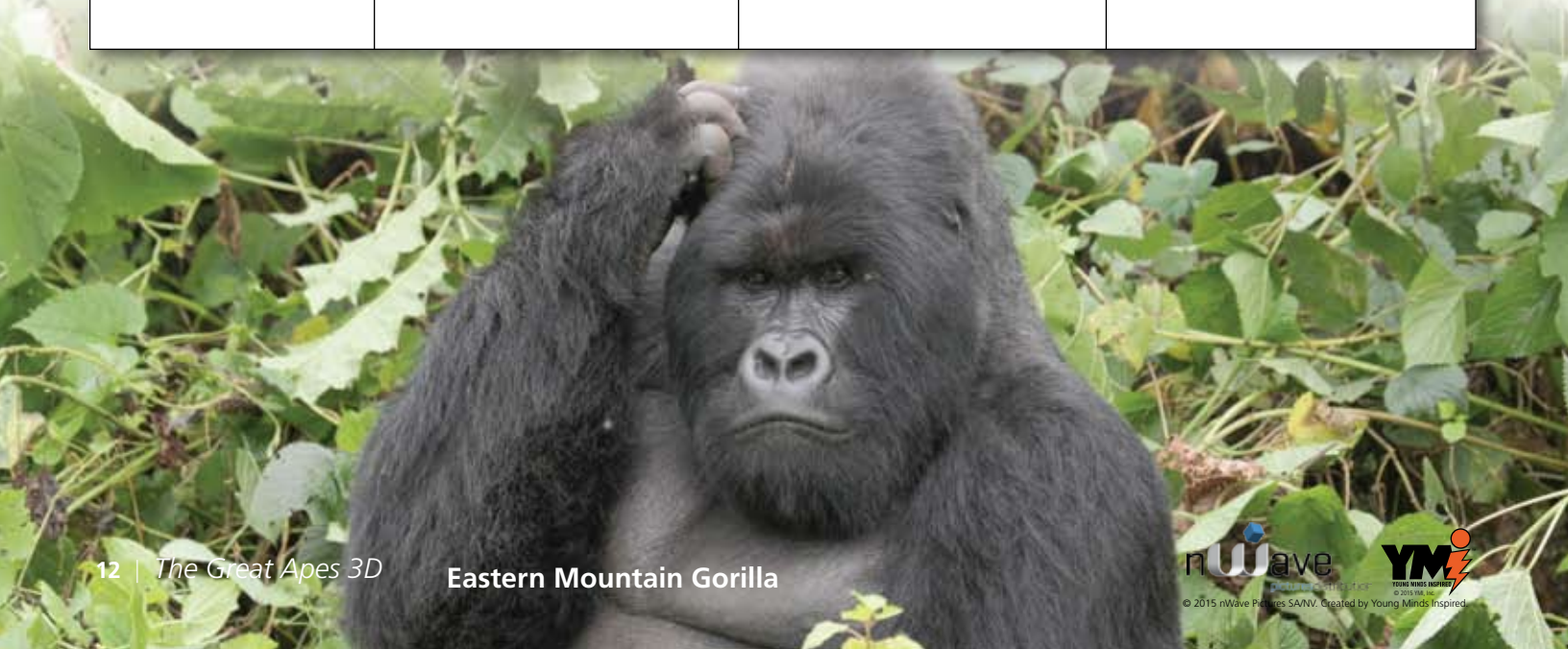
The great apes you meet in the film live in different kinds of social groups, with some more like humans than others. Fill in the chart below by writing each species name from the word bank in the correct row in column 2. Then brainstorm with your group the pros and cons of each type of social structure. Record your ideas in columns 3 and 4.



Word Bank

- Bonobo**
- Western lowland gorilla**
- Chimpanzee**
- Eastern mountain gorilla**
- Orangutan**

| (1) Type of Social Structure | (2) Species That Practice It | (3) Pros (what is good about it) | (4) Cons (what is not good about it) |
|------------------------------|------------------------------|-------------------------------------|---|
| Male-centered | | | |
| Female-centered | | | |
| Solitary | | | |



TEACHING NOTES

Activity 4: Match Wits with the Great Apes

The intelligence of the great apes, especially chimpanzees, is astounding. In the film, students learned about lumbu, a chimpanzee at the Primate Research Center at Kyoto University in Japan. lumbu can glance at a random series of numbers for less than a second and then click on the numbers in numeric order after the numbers have been hidden. This activity gives students the opportunity to test their own memory skills against lumbu's. In addition, by conducting a similar experiment, students can gain a better appreciation for the intelligence of chimpanzees.

For Grades K-3

The activity sheet provides an explanation of the Kyoto University experiment and a set of cut-out numbers from 1 to 9 for students to simulate the experiment with their classmates. The sheet also provides a data collection chart where students can track the results of their experiment when students are exposed to the sequence for 10 seconds, 5 seconds, and 1 second.

Follow Up: Divide students into pairs and challenge them to think up other experiments to test memory and then conduct them on each other.

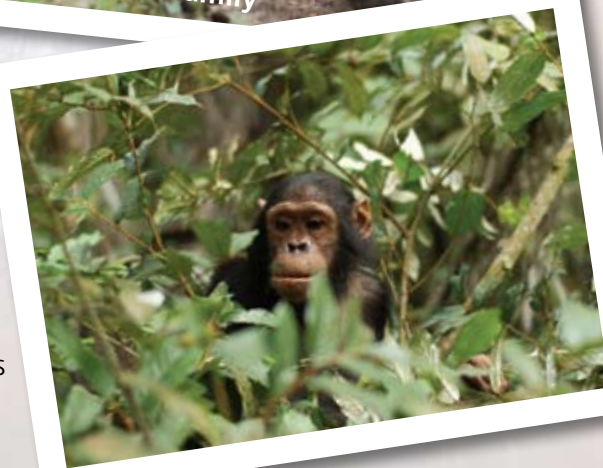
For Grades 4-8

The activity sheet provides an explanation of the Kyoto University experiment and a set of cut-out numbers from 1 to 9 for students to simulate the experiment with their classmates. The sheet also provides a data collection chart where students can track the results of their experiment when students are exposed to the sequence for 10 seconds, 5 seconds, and 1 second.

Students are then asked to act as scientists and question the experiment. Does it show that chimpanzees understand numbers or only that they can recognize different shapes? Challenge students to construct an experiment that would prove that chimpanzees can actually understand numbers.

Follow Up: In the film, students learned that orangutans use 20% of their calories to fuel their brain. Have your students do research to find out what percentage of daily calories the human brain uses to function (see <http://www.livescience.com/3186-brain-food-eat-smart.html>). How does it compare to apes? Are they surprised to see that it is the same as that of apes? As an

extension, challenge students to keep a journal of what they eat in a day and figure out the number of calories that helped keep their brain functioning.



Activity 4: Match Wits with the Great Apes

In the film, you meet lumbu, a chimpanzee at the Primate Research Center at a Japanese university. This chimpanzee is the star pupil in a memory test developed by Professor Matsuzawa. In this test, lumbu sees a set of numbers displayed for only half a second on a computer screen. Then lumbu sorts the numbers in order from least to greatest. Holly Carroll is surprised when she tries the same test, because she can't even see the numbers in half a second!



Try it with a partner. Cut out the numbers below and place them in a row in random order. Have a sheet of paper ready to cover the row when the time is up. Let your partner look at the numbers for 10 seconds, then cover them over.

With your partner looking away, turn the slips of paper number side down and then challenge your partner to turn the numbers over in order from 1 to 9. Record how many your partner can turn over correctly in the first chart below. Repeat the experiment, letting your partner look at the numbers for 5 seconds and then 1 second. Now switch roles, and have your partner record your results in the second chart below.



Data Collection Chart

Partner #1 Name _____

| | 10 seconds | 5 seconds | 1 second |
|-----------------------|------------|-----------|----------|
| Number Correct | | | |

Partner #2 Name _____

| | 10 seconds | 5 seconds | 1 second |
|-----------------------|------------|-----------|----------|
| Number Correct | | | |

Activity 4: Match Wits with the Great Apes

In the film, you meet lumbu, a chimpanzee at the Primate Research Center at a Japanese university. This chimpanzee is the star pupil in a memory test developed by Professor Matsuzawa. In this test, lumbu sees a set of numbers displayed for only half a second on a computer screen, and then lumbu clicks on the number locations in order from least to greatest. Holly Carroll is surprised when she tries the same test, because she can't even see the numbers in half a second!

Try it with a partner. Cut out the numbers below and place them in a row in random order. Have a sheet of paper ready to cover the row when the time is up. Let your partner look at the numbers for 10 seconds, then cover them over. With your partner looking away, turn the slips of paper number side down and then challenge your partner to turn the numbers over in order from 1 to 9. Record how many your partner can turn over correctly on the chart below. Repeat the experiment, letting your partner look at the numbers for 5 seconds and then 1 second, and record those results. Then switch roles and have your partner record your results.



Data Collection Chart

Team _____

| | Number Correct | 10 seconds | 5 seconds | 1 second |
|--------------------|----------------|------------|-----------|----------|
| Partner #1: | | | | |
| Partner #2: | | | | |

Good science invites questions. What questions do you have about this experiment? Some wonder if the experiment simply shows that chimpanzees can recognize the shapes of the numbers, but not the numbers themselves. What do you think? Work with your partner to answer this question. Then brainstorm an updated experiment that could prove the chimpanzees recognize the numbers as quantities and not just as shapes. Record your ideas and observations here:



TEACHING NOTES

Activity 5: The Survival of the Great Apes

For Grades K-8

This activity is designed for use with grades K-8, as students of any age should be able to understand how loss of habitat is a threat that all species have in common.

Introduce the activity by asking students to recall from the film what they learned about threats to the great apes. Distribute the activity sheet, which includes instructions for raising awareness through posters and a chart describing some of the ways in which humans

are posing a threat to the great apes. Younger students can create mini-posters. Older students can fill out the chart and add any additional information from class discussions. Then invite students to brainstorm ways in which each of these threats can be reduced, using websites such as those on page 19 to learn about organizations that are working to protect the great apes from human impact.

Follow Up: Challenge students to take appropriate action on one of these threats — by sending emails, writing letters, or otherwise raising awareness — and engaging others in your school to participate in these efforts.



Activity 5: The Survival of the Great Apes

In *The Great Apes 3D*, you learn about the dangers to the great apes from human activity. Humans are taking over some of the land where the great apes make their homes. You can help protect the great apes by taking action such as creating mini-posters calling attention to the dangers facing the great apes' habitats. You might use a sheet of paper to draw your own house next to the "home" of

a great ape and write how people can help stop this threat to the great apes' habitats.

You can also use what you learned from the film and from research you do on various websites to suggest possible solutions to some of the threats listed below. Write your ideas in the third column. The first one is already done to help you get started.

| Threat | Its Effect | Possible Solution |
|--|---|---|
| National park borders that aren't clearly marked | More human-ape contact | In Virunga National Park in the Democratic Republic of Congo, officials have built physical barriers around the park. |
| Cutting down native trees to clear land for business such as palm-oil plantations | Making apes move and destroying parts of their habitat | |
| Expanding farmland into apes' territory | Making apes move and destroying parts of their habitat | |
| Humans building towns within apes' territory | Making apes move and destroying parts of their habitat | |
| With more people living near the great apes, they are more likely to meet up with humans by accident | Killing off the apes, introducing germs for which the apes have no immunity | |
| Hunting/poaching | Maiming and killing apes, selling apes into captivity | |
| | | |
| | | |

The Great Apes Word Search

Part A: Congratulations! You are well on your way to becoming an expert on great apes. Find these important terms related to the great apes in the word search puzzle at right.

AFRICA
HUMAN
BONOBOS
JUNGLES
CHIMPANZEES
ORANGUTANS
FAMILIES
SURVIVAL
FARMING
TREES
GORILLAS
WATER
HABITAT

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| W | I | J | U | N | G | L | E | S | P |
| H | F | X | O | P | T | O | C | B | B |
| S | A | K | U | X | R | R | H | O | F |
| U | M | H | B | W | E | A | I | N | H |
| R | I | F | H | H | E | N | M | O | L |
| V | L | A | A | A | S | G | P | B | W |
| I | I | R | B | F | J | U | A | O | A |
| V | E | M | I | R | P | T | N | S | T |
| A | S | I | T | I | M | A | Z | H | E |
| L | O | N | A | C | T | N | E | S | R |
| U | Z | G | T | A | F | S | E | Q | T |
| G | O | R | I | L | L | A | S | Z | V |
| X | V | L | N | H | U | M | A | N | A |

Part B: Use the words from the puzzle to complete these sentences.

- _____, gorillas, _____, and orangutans are species of great apes, humans' closest relatives. The apes communicate, argue, and raise _____.
- All the great apes species except for one live in the rainforests of central _____. The orangutan lives in the _____ of Sumatra and Borneo in Asia.
- Bonobos are the only great ape that is at home in the _____. They can spend up to four hours a day wading in a river. _____ spend their whole lives in the _____, only sometimes coming to the ground. _____ and chimpanzees spend time in the trees and on the ground.
- _____ activity threatens apes' _____, or where they live. Many organizations are working to protect their habitats. Hunting and _____ are two of the threats to apes' _____.

Answers appear on page 19.

Resources

Ape Alliance
www.4apes.com

The Center for Great Apes
www.centerforgreatapes.org/

Orangutan Foundation International
<http://orangutan.org/>

Jane Goodall Institute
www.janegoodall.org/

International Primate Protection League
www.ippl.org/

Orangutan Tropical Peatland Project
www.outrop.com/

World Wildlife Fund
http://wwf.panda.org/what_we_do/angered_species/great_apes/

Mountain Gorilla Conservation Fund
www.saveagorilla.org/

The Dian Fossey Gorilla Fund
<http://gorillafund.org/>

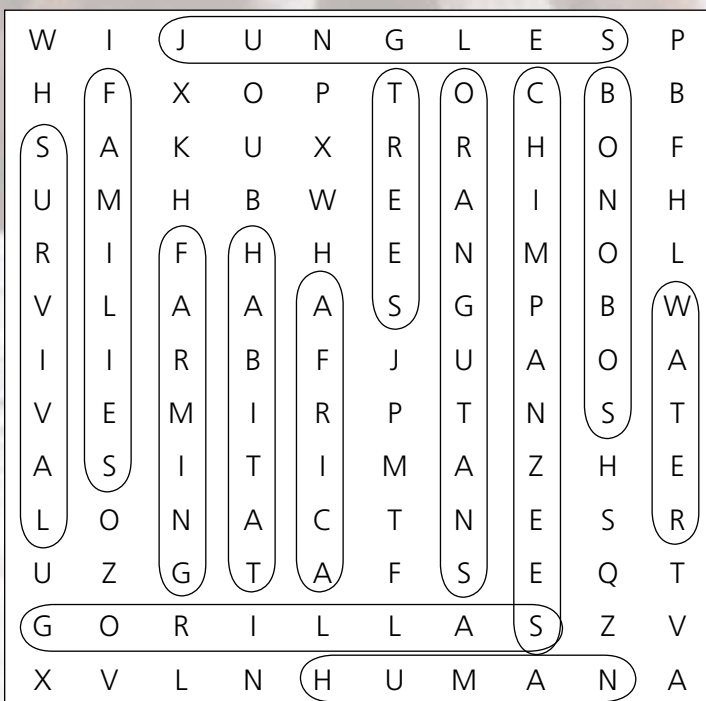
Projects to save endangered species
www.vecotourism.org/

Great Apes Survival Partnership
www.un-grasp.org/

Virunga National Park
<http://virunga.org/the-park/>

To learn more about the great apes, visit
<http://thelastofthegreatapes.com/>

Answer Key: The Great Apes Word Search (page 18)



- Bonobos**, gorillas, **chimpanzees**, and orangutans are species of great apes, humans' closest relatives. The apes communicate, argue, and raise **families**.
- All the great ape species except for one live in the rainforests of central **Africa**. The orangutan lives in the **jungles** of Sumatra and Borneo in Asia.
- Bonobos are the only great ape that is at home in the **water**. They can spend up to four hours a day wading in a river. **Orangutans** spend their whole lives in the **trees**, only sometimes coming to the ground. **Gorillas** and chimpanzees spend time in the trees and on the ground.
- Human** activity threatens apes' **habitat**, or where they live. Many organizations are working to protect their habitats. Hunting and **farming** are two of the threats to apes' **survival**.

THE GREAT APES



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An nWave Pictures Distribution release

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Directed by Jeremy Hogarth*

For additional educational resources, games and online activities,
Please log on to GreatApes.nWave.com



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