



# SeaWorld/Busch Gardens Primates

## 9-12 Classroom Activities

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# Primate Scavenger Hunt

### OBJECTIVE

The student will conduct an investigation into conservation issues that concern modern day primates. The student will research various primates.

### ACTION

1. Divide the class into groups of four and distribute one Primate Scavenger Hunt Funsheet to each group.
2. Explain that each group will be conducting a primate scavenger hunt. Each task on the scavenger hunt is worth a certain amount of points. Extra points may be awarded if the team provides more examples than asked for on the sheet. The teams will have one week to research and find all items on the scavenger hunt.
3. Allow time for student groups to research items on the scavenger hunt (library, Internet, or other resources).
4. Instruct each team to present their scavenger hunt items and research to the class at the end of the week. The team with the most points gathered from their scavenger hunts wins. It is up to the teacher's discretion to determine the prize (extra points on a homework assignment, quiz, etc.).

### MATERIALS

(per student group)

- copy of Primate Scavenger Hunt Funsheet
- pencils
- access to Internet, library or other information resource
- Recommended Reference Sources
  - Rowe, Noel. 1996. *The Pictorial Guide to the Living Primates*. East Hampton, New York: Pogonias Press.
  - Jane Goodall's Chimpanzee Guardian Project: <<http://www.janegoodall.org/>>

# Primate Scavenger Hunt Funsheet

Use the Internet, library, or other information resources to answer the following questions about primates. Each question is worth 5 points. Use another sheet of paper if necessary. Cite your sources.

1. Identify all subspecies of gorilla.
2. Identify four differences between apes and monkeys.
3. Identify all the primates that are considered to be great apes.
4. Identify three differences between bonobos and chimpanzees.
5. Write the scientific name (*Genus species*) for three apes and ten monkeys.
6. Identify three prominent scientists in the field of primatology and briefly explain the nature of their research.
7. Identify three myths that concern primates in modern society.
8. Write five fun facts for each of the following primates: orangutan, gorilla, and chimpanzee.
9. Locate one magazine or newspaper article (written in the last 20 years) that exemplifies a myth or a fact about primates.
10. Identify two television commercials that personify primates in pop culture.

11. Identify two sources (other than television commercials) that personify primates.
12. Identify two reasons why the personification of primates in pop culture may be detrimental to their conservation.
13. Identify three reasons why a baby chimpanzee would NOT make a good pet.
14. Identify and define the top three causes for the decline in wild gorilla populations.
15. Identify five ways that people can help primate conservation.
16. Identify two movies made within the last 30 years that accurately convey the issues facing primates in the modern world. Support your answers.
17. Identify three human behaviors that also may be exhibited by chimpanzees.
18. Identify two tools and their functions that chimpanzees and gorillas use.
19. Define allogrooming.
20. True or False: A gorilla's nose print is as individual to them as fingerprints are to humans.

# Primate Scavenger Hunt Answer Guide

1. Identify all subspecies of gorilla.

Mountain Gorilla (*Gorilla gorilla beringei*)

Western Lowland Gorilla (*Gorilla gorilla gorilla*)

Eastern Lowland Gorilla (*Gorilla gorilla graueri*)

2. Identify four differences between apes and monkeys.

A. Apes do not have a tail and are generally larger than other primates such as monkeys.

B. Apes have a more upright body posture than monkeys.

C. Apes rely more on vision than on smell and have a short broad nose rather than a snout, as Old World monkeys do.

D. Apes have a larger brain relative to the body size than other primates such as monkeys.

3. Identify all the primates that are considered to be great apes.

The great apes comprise the families Pongidae and Hominidae.

Sumatran Orangutan (*Pongo abelii*)

Borneo Orangutan (*Pongo pygmaeus*)

Mountain Gorilla (*Gorilla gorilla beringei*)

Western Lowland Gorilla (*Gorilla gorilla gorilla*)

Eastern Lowland Gorilla (*Gorilla gorilla graueri*)

Bonobo or Pygmy Chimpanzee (*Pan paniscus*)

Chimpanzee (*Pan troglodytes*)

4. Identify three differences between bonobos and chimpanzees.

A. Bonobos have a more slender build than chimpanzees.

B. Bonobos have a limited geographic range. They inhabit the lowland rainforests of Zaire in Africa. Chimpanzees have a wider geographic range. They inhabit the rainforests of equatorial Africa (Guinea to Ghana, Nigeria, Cameroon, Gaboon, Congo Republic, Central African Republic, Zaire, Uganda, and Tanzania).

C. Infant bonobos are often born with a black face whereas baby chimpanzees are often born with pink to brown facial skin.

5. Write the scientific name (*Genus species*) for three apes and ten monkeys.

**Monkeys** (There are 160 species of monkeys, here are 10 of them).

Common Squirrel Monkey (*Saimiri sciureus*)

Diana Monkey (*Cercopithecus diana*)

Proboscis Monkey (*Nasalis (*Nasalis*) larvatus*)

White-throated Capuchin (*Cebus capucinus*)

Black Spider Monkey (*Ateles paniscus*)

Black Howler (*Alouatta pigra*)  
White-bellied Spider Monkey (*Ateles belzebuth*)  
Woolly Monkey (*Lagothrix lagotricha*)  
Assamese Macaque (*Macaca assamensis*)  
Guinea Baboon (*Papio hamadryas papio*)

### Apes

Sumatran Orangutan (*Pongo abelii*)  
Western Lowland Gorilla (*Gorilla gorilla gorilla*)  
Chimpanzee (*Pan troglodytes*)

6. Identify three prominent scientists in the field of primatology and briefly explain the nature of their research.

Some prominent primatologists are:

Jane Goodall: Her research primarily focuses on chimpanzee behavior and conservation. She has spent many years in the jungles of Africa, living in the chimpanzees' environment and earning their trust. She has written two books, *Wild Chimpanzees* and *In the Shadow of Man*. Dr. Goodall's scientific articles have appeared in many issues of *National Geographic*. She founded the Jane Goodall Institute to increase educational awareness of environmental issues and species conservation.

Birute Galdikas: Her research primarily focuses on orangutan behavior and conservation. Dr. Galdikas is the founder of the Orangutan Foundation International. She spends most of her time living in the orangutans' environment to study them more closely. She has written several books about her research such as *Orangutan Odyssey* and *Reflections of Eden*.

Dian Fossey: Her research primarily focused on mountain gorilla behavior and conservation. Dian studied wild gorillas in the Virunga Mountains of Rwanda and Zaire. She wrote a book called *Gorillas in the Mist* which is based on her research. Dr. Fossey was murdered in 1985. Her contributions to gorilla conservation are still in effect today.

7. Identify three myths that concern primates in modern society.

Some myths are:

- A. Myth: Gorillas and other primates have a violent and aggressive nature similar to how they were portrayed in *King Kong*. Truth: Gorillas are a gentle, social and docile species. They spend most of their day tending to their young and eating a variety of vegetation.
- B. Myth: Primates (especially infants) can make good pets. Truth: No. This misconception may be propagated by the personification of primates.
- C. Myth: I can't make a difference in saving populations of great apes. Truth: There are many opportunities through education, donations, and participation in conservation programs such as Jane Goodall's *Roots and Shoots* that can help save great apes and other primates.

“Only if we understand can we care  
Only if we care will we help  
Only if we help shall they be saved” by Jane Goodall

8. Write five fun facts for each of the following primates: orangutan, gorilla, and chimpanzee.

### **Gorilla**

- The intimidating chest-beating charge of a male gorilla is usually a bluff to scare off intruders while the rest of his band disappears into the forest. However, it is also used in play as well.
- The huge silverback is a tolerant father who baby-sits for his offspring so the females can forage without the hindrance of playful young.
- During the early weeks, a newborn gorilla is clutched belly-to-belly (ventral) for close contact until it develops the strength and coordination to cling onto its mother's back (dorsal) hair at about two months.
- Wild gorillas are difficult to study because they are shy, secretive inhabitants of densely vegetated tropical forests.
- Gorillas have individual nose prints as humans have individual fingerprints.

### **Orangutan**

- Unlike other great apes, orangutans are solitary by nature; this may be related to their need for large quantities of fruit, which are dispersed throughout the forest.
- Even though they are able to walk upright for short distances, orangutans travel mostly by brachiating (swinging from one branch to another by the arms) through trees, using well-worn corridors in the forest canopy.
- Males have a large throat sac that helps them make "long calls." This travels for up to 1 km (.62 mile) through dense vegetation, which helps the males define territories. The "squeak-kiss" noise they make is a sign of annoyance.
- Orangs are unable to swim. In rain, they construct a leaf nest to keep dry.
- Bornean orangs have the most prolonged development of any mammal therefore they reproduce very slowly.

### **Chimpanzee**

- Young chimps learn to create tools from objects in their environment by watching others; they use sticks to extract termites to eat and crumple leaves to soak up water to drink.
- Just like people, mother chimpanzees often develop lifelong relationships with their offspring.
- By following wild chimps through the forests, scientists discovered that chimps use medicinal plants to treat themselves for illness and injury. Scientists have isolated an anti-tumor agent in one such plant!
- Chimpanzees are very social primates that use facial expressions, vocalizations, body language, grooming, and even kisses and pats to communicate with members of their group.
- Chimpanzees' diet differs from that of gorillas because they are omnivores (consume both vegetation and meat).

9. Locate one magazine or newspaper article (written in the last 20 years) that exemplifies a myth or a fact about primates.

Students should research current magazine and newspaper articles to fulfill this part of the scavenger hunt.

10. Identify two television commercials that personify (the placing of human characteristics to a non-human being) primates in pop culture.

Students should research current television commercials to fulfill this part of the scavenger hunt.

11. Identify two sources (other than television commercials) that personify primates.

Movies, television shows, greeting cards, print and radio advertisements, company promotional products, cartoons, comics.

12. Identify two reasons why the personification of primates in pop culture may be detrimental to their conservation.

A. The personification of primates in pop culture may create a misconception that primates make good pets. Media sometimes places these animals in human clothing or creates an illusion that they understand complex thoughts and motivations that makes them seem like good pets. The opposite is actually true. Once many primates have reached adulthood (gorillas, chimpanzees, orangutans, etc) they are stronger than humans.

B. The personification of primates in pop culture may create an atmosphere that these animals can only be valued for characteristics associated with humans. Many primate species exhibit naturally astonishing behaviors. Each primate species has incredible physical adaptations that allow them to survive in the wild.

13. Identify three reasons why a baby chimpanzee would NOT make a good pet.

A. When the infant reaches maturity, it will be more than twice as strong as a human.

B. Domestication takes thousands of years and actually changes the shape of the brain and how an animal reacts. A chimpanzee is not a domesticated animal. When the infant reaches maturity it will act on its natural instincts.

C. A play behavior of an adult chimpanzee is much more aggressive than that of an infant's.

D. Infant chimpanzees learn from their parents how to act as an adult, humans are not able to mimic the parenting skills of chimpanzee parents.

14. Identify and define the top three causes for the decline in wild gorilla populations.

A. Habitat Destruction: Loss of habitat due to human encroachment.

B. Bush Meat Trade: The illegal hunting of primates for meat.

C. Poaching: The illegal hunting of an endangered animal.

15. Identify five ways that people can help primate conservation.
- A. Support primate conservation research with donations.
  - B. Support and propagate education about primates. People will not protect what they do not about.
  - C. Volunteer for primate conservation organizations. These organizations utilize the diversity of their volunteers to further primate conservation.
  - D. Register to vote, and vote for candidates who support the protection of the environment and endangered species.
  - E. Be aware of your consumer purchasing power. Do not support trade of primate products by purchasing them. Every time someone buys an illegal primate product, they are creating a demand for it.

16. Identify two movies made within the last 30 years that accurately convey the issues facing primates in the modern world. Support your answers.

Students should research current movies to fulfill this part of the scavenger hunt.

17. Identify three human behaviors that also may be exhibited by chimpanzees.

Chimpanzees are very social primates that use facial expressions, body language, grooming, and even kisses and pats to communicate with members of their group. These are all characteristics that occur naturally within the primate society as well as human civilization.

18. Identify two tools and their functions that chimpanzees and gorillas use.

An example of two most common primate tools:

- A. A dry leaf: Various apes will use a dry leaf to act as a sponge. They dip it into water to absorb a greater amount of water than if they used their hands and ring it out in their mouth.
- B. Stick: Various apes will utilize long slender sticks to probe into insect burrows to retrieve the food.

19. Define allogrooming

Allogrooming is the reciprocal cleaning of each other's fur.

20. True or False: A gorilla's nose print is as individual to them as fingerprints are to humans.

True: In fact many researchers can identify certain gorillas using only this feature.



# SeaWorld/Busch Gardens Primates

## 9-12 Classroom Activities

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## Primate Research

### OBJECTIVE

The student will research various primate conservation projects.

### ACTION

1. Divide the class into groups of five.
2. Explain that each group will research a primate conservation project and construct an oral presentation based on their findings. Instruct each group to draw a piece of paper out of the bowl. The paper will identify their assigned primate conservation project.
3. Explain that the following concepts should be included in their research and presentation.
  - A. Where is the project being conducted? Students may want to bring in a map and outline the project research location(s)
  - B. Write a brief overview of the project.
  - C. Describe in detail the goal(s) of the project?
  - D. Describe in detail the activities/steps that are involved in the project to ensure the goals are met?
  - E. How does the project help promote primate conservation? Students may want to include pictures of the primates that are involved in the project.
  - F. What other species may benefit from the project besides primates and how?
  - G. Are the local people or agencies involved in the conservation project and how?
4. Instruct each group to create information brochures about their project that includes the above information as well as all Web sites (documented in APA format) utilized during their research. The students will distribute the brochures to all the other students in the class before they conduct their presentation.

## PROJECT LIST

1. Mbeli Bai Gorilla Study
2. Congo Basin Project
3. The Orangutan Project- Hutan a French NGO
4. TACARE Project
5. Roots and Shoots

## MATERIALS

### Per student group:

- Internet access: recommended Web sites  
<<http://www.wwfmalaysia.org/rangers/creature/orangutan/orangutan6.html>>  
<<http://www.seaworld.org/conservation/bgtconsproj.htm>>  
<[http://www.seaworld.org/JulieJournal/mbeli\\_bai\\_gorilla\\_study.htm](http://www.seaworld.org/JulieJournal/mbeli_bai_gorilla_study.htm)>  
<<http://www.wcs-congo.org/resmbeli.htm>>  
<<http://www.janegoodall.org/>>
- Project List on left
- art supplies (paper, markers) or access to computers and a desktop publishing program (to create brochures)

## PREPARATION

Write the name of each primate conservation project (from the project list) on an individual piece of paper. Fold the papers and place them in a large bowl for students to draw from.



A western lowland gorilla observation area in the remote region of the Nouabale-Ndoki National Park in Africa's northern Congo. Supported by Busch Gardens, the Mbeli Bai gorilla study is coordinated by the Wildlife Conservation Society and supervised by project director Michael Fay. The study's focus on the rarely seen ecology and social behavior of the lowland gorilla is resulting in ground-breaking data on this fascinating and endangered species.