



# SeaWorld/Busch Gardens Primates

## 4-8 Classroom Activities

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## Primate Dichotomous Key

### OBJECTIVE

The student will research and evaluate ten primate species. The student will construct a dichotomous key to classify ten primate species into distinct categories.

### ACTION

1. Explain that the students will be constructing a primate dichotomous key. A dichotomous key is a biological tool used to classify organisms into distinct categories. It is constructed of several couplets (a set of two statements). Each statement of the couplet describes a certain characteristic of the organism being classified. Then a choice is made between the two statements that best fits the organisms. The initial couplets are constructed with statements that contain broad characteristics of the organisms being classified. For example: apes vs. monkeys. As couplets progress in the dichotomous key, the characteristics become more specific. For example: weight (under one pound) vs. (over one pound).
2. Write the primate list on the chalkboard or copy on an overhead. Explain that these primates will be classified by the dichotomous key.
3. Divide the class into groups of four. Each group will be responsible for constructing a unique primate dichotomous key for the primates listed on the board.
4. Allot time for the student groups to research the primates on the list (internet, library, or other resources). Explain that students must research each primate on the list to complete the dichotomous key.
5. Give the students the following hint to begin their dichotomous key. The first couplet should be "apes vs. monkeys." This will divide the list of ten primates into two groups of five. The students will then have to determine the differences between apes and monkeys and sort the primate list into their designated categories.
6. Remind students that the main purpose of a dichotomous key is to make it user friendly. Therefore the keys should be constructed so that an anonymous person or group can yield the same results or classification using the key. This will require that each statement of the couplets have an explanation underneath it.

continued....

For example: apes vs. monkeys, the students should write the defining characteristics of an ape underneath the ape statement and the defining monkey characteristics underneath the monkey statement. This will ensure that the dichotomous key is user friendly. A sample dichotomous key has been included for teacher reference.

7. Instruct students to present their dichotomous keys to the class.

### **PRIMATE LIST FOR DICHOTOMOUS KEY**

1. Bonobos or Pygmy Chimpanzee  
(*Pan paniscus*)
2. Chimpanzee  
(*Pan troglodytes*)
3. Common Marmoset  
(*Callithrix jacchus*)
4. Guinea Baboon  
(*Papio hamadryas papio*)
5. Mandrill  
(*Mandrillus sphinx*)
6. Spider Monkey  
(*Ateles fusciceps robustes*)
7. Squirrel Monkey  
(*Saimiri scioreus*)
8. Sumatran Orangutan  
(*Pongo abelii*)
9. Western Lowland Gorilla  
(*Gorilla gorilla gorilla*)
10. White-handed Gibbon  
(*Hylobates (Hylobates) lar*)

### **DEEPER DEPTHS**

Once all the primate dichotomous keys have been checked for accuracy using the teacher guide sample, instruct students to trade their key with another group. Next, the students will try to classify the primate list using the other group's dichotomous key.

### **MATERIALS**

#### **Per student:**

- copy of Primate Dichotomous Key list and flow chart
- pencil or pen

#### **Per class:**

- copy of Primate Dichotomous Key answer guide
- Recommended Reference Sources  
Rowe, Noel. 1996. *The Pictorial Guide to the Living Primates*. East Hampton, New York: Pogonias Press.

<[http://www.buschgardens.org/AnimalBytes/animal\\_bytes.html](http://www.buschgardens.org/AnimalBytes/animal_bytes.html)>

# Primate Dichotomous Key

Using the following funsheet and the lines below, classify the these primate species.

*gorilla, gibbon, bonobo, chimpanzee, orang-utan, baboon, marmoset, spider monkey, mandrill, and squirrel monkey*

1. Primate has a tail..... go to 2: (monkeys)

-- Primate doesn't have a tail..... go to \_\_\_\_: (apes)

2. Monkey \_\_\_\_\_ go to 3

-- Monkey \_\_\_\_\_ go to \_\_\_\_\_

3. \_\_\_\_\_ go to \_\_\_\_\_

-- \_\_\_\_\_

4. \_\_\_\_\_

-- \_\_\_\_\_

5. \_\_\_\_\_

-- \_\_\_\_\_

6. \_\_\_\_\_

-- \_\_\_\_\_

7. \_\_\_\_\_

-- \_\_\_\_\_

8. \_\_\_\_\_

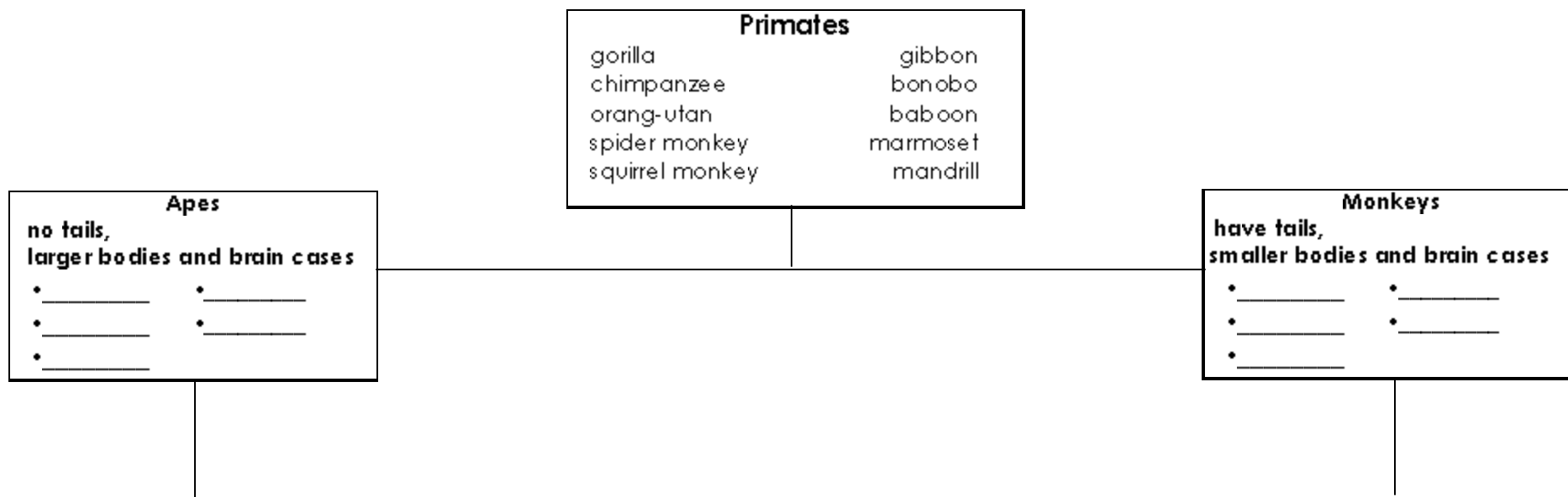
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8. \_\_\_\_\_

-- \_\_\_\_\_

# Primate Dichotomous Key Flowchart

Finish the flowchart below to classify the apes and monkeys. Draw new boxes and write in the characteristics and species. When finished, each primate will have its own box.



# Sample Primate Dichotomous Key

Using the following funsheet and the lines below, classify the these primate species.

*gorilla, gibbon, bonobo, chimpanzee, orang-utan, baboon, marmoset, spider monkey, mandrill, and squirrel monkey*

1. Primate has a tail..... go to 2: (monkeys)
- Primate doesn't have a tail..... go to 6: (apes)
  
2. Monkey from Americas..... go to 3
- Monkey from Africa or Asia..... go to 5
  
3. Monkey eats meat..... go to 4
- Monkey eats fruit and plant matter..... spider monkey
  
4. Monkey weighs under 1 lb..... marmoset
- Monkey weighs over 1 lb..... squirrel monkey
  
5. Monkey endangered under CITES I..... mandrill
- Monkey endangered under CITES II..... baboon
  
6. Ape from Africa..... go to 7
- Ape from Asia..... go to 9
  
7. Ape eats meat ..... go to 8
- Ape eats plants ..... gorilla
  
8. Ape with limited distribution ..... bonobo
- Ape with wide distribution..... chimpanzee
  
9. Ape of large size..... orang-utan
- Ape of small size..... gibbon

### Sample Primate Dichotomous Key

