

# Chapter 16

## Primate Evolution

### Reinforcement and Study Guide

#### Section 16.1 Primate Adaptation and Evolution

*In your textbook, read about the characteristics of a primate.*

Complete the chart by checking those structures or functions that are characteristic of primates.

Structure/Function	Primate
1. Round head	
2. Flattened face	
3. Small head	
4. Large relative brain size	
5. Highly developed vision	
6. Poor vision	
7. Binocular vision	
8. Color vision	
9. Color-blind	
10. Vision the dominant sense	
11. Smell the dominant sense	
12. Immobile joints	
13. Flexible shoulder joints	
14. Skeleton adapted for movement among trees	
15. Skeleton adapted for swimming	
16. Hands and feet equipped with claws	
17. Hands and feet equipped with nails	
18. Eyes face to the side	
19. Feet constructed for grasping	
20. Opposable thumbs	

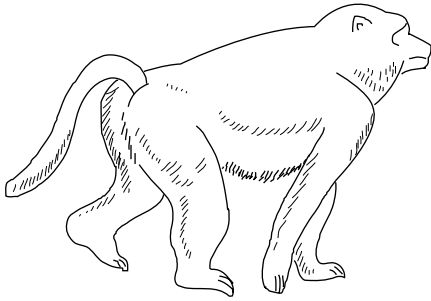
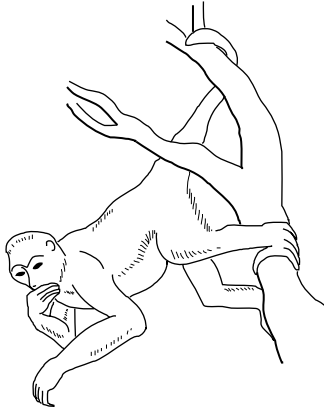
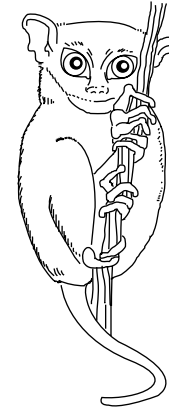
*In your textbook, read about primate origins.*

For each statement below, write **true** or **false**.

- \_\_\_\_\_ 21. Scientists believe that primates evolved about 66,000 years ago.
- \_\_\_\_\_ 22. The earliest primate may have been a prosimianlike animal called *Purgatorius*.
- \_\_\_\_\_ 23. Anthropoids are a group of small-bodied primates.
- \_\_\_\_\_ 24. Prosimians include lemurs and tarsiers.
- \_\_\_\_\_ 25. Prosimians can be found in the tropical forests of South America.

**Chapter**  
**16****Primate Evolution, *continued*****Reinforcement and Study Guide****Section 16.1 Primate Adaptation  
and Evolution, *continued***

Identify the following pictures. Use these choices: baboon, tarsier, spider monkey. Then on the second line write the group that is represented by the picture. Use these choices: New World monkey, Old World monkey, prosimian.

**26.** \_\_\_\_\_  
\_\_\_\_\_**27.** \_\_\_\_\_  
\_\_\_\_\_**28.** \_\_\_\_\_  
\_\_\_\_\_

Answer the following questions.

**29.** What do similarities among monkeys, apes, and humans indicate about their evolution?

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**30.** According to the fossil record, what were the first modern anthropoids to evolve and about when did they evolve?

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**31.** What is the evolutionary history of primates based on?

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**32.** What may have led to the eventual speciation of baboons and other ground-living monkeys?

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**33.** What does DNA analysis of modern hominoids suggest about their evolutionary history?

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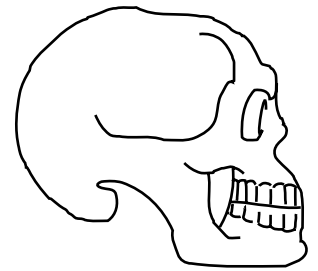
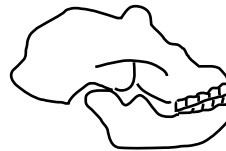
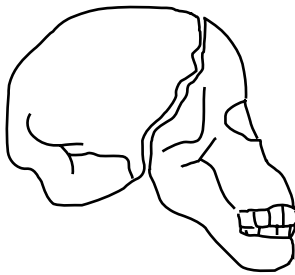
**Chapter**  
**16****Primate Evolution, continued****Reinforcement and Study Guide****Section 16.2 Human Ancestry**

*In your textbook, read about hominids.*

**Answer the following questions.**

1. What is an australopithecine? \_\_\_\_\_
2. What fossil skull did Raymond Dart discover in Africa in 1924? \_\_\_\_\_
3. Why was *A. africanus* unlike any primate fossil skull that Dart had ever seen? \_\_\_\_\_  
\_\_\_\_\_
4. What did the position of the foramen magnum indicate to Dart? \_\_\_\_\_  
\_\_\_\_\_

**Label the following skulls. Use these choices: chimpanzee, human, *A. afarensis***



5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_

**For each statement below, write true or false.**

- \_\_\_\_\_ 8. Much of what scientists know about australopithecines comes from the “Lucy” skeleton.
- \_\_\_\_\_ 9. “Lucy” is 3.5 billion years old.
- \_\_\_\_\_ 10. “Lucy” is classified as *A. africanus*.
- \_\_\_\_\_ 11. *A. afarensis* is the earliest known hominid species.
- \_\_\_\_\_ 12. *A. afarensis* walked on all four legs and had a humanlike brain.
- \_\_\_\_\_ 13. Australopithecines are alive today and can be found in southern Africa and Asia.
- \_\_\_\_\_ 14. Australopithecines probably played a role in the evolution of modern hominids.

**Chapter**  
**16****Primate Evolution, continued****Reinforcement and Study Guide****Section 16.2 Human Ancestry,  
continued**

*In your textbook, read about the emergence of modern humans.*

**Circle the letter of the choice that best completes the statement or answers the question.**

- 15.** The first skull of *Homo habilis* was discovered by  
a. Raymond Dart.                      b. Louis and Mary Leakey.  
c. Donald Johanson.                  d. Gert Terblance.
- 16.** When compared to an australopithecine skull, the *Homo habilis* skull is  
a. more humanlike.                      b. less humanlike.  
c. more apelike.                          d. exactly the same.
- 17.** Which of the following is *not* true about *Homo habilis*?  
a. They existed between 1.5 and 2 million years ago.                      b. They were the first hominids to make and use tools.  
c. They were probably scavengers of their food.                      d. They gave rise to *A. africanus*.
- 18.** *Homo habilis* means  
a. “handy human.”                      b. “tool-using human.”  
c. “upright human.”                      d. “talking human.”
- 19.** Of the primates below, which has the largest brain?  
a. *Homo habilis*                          b. *Homo erectus*  
c. an ape                                      d. an australopithecine
- 20.** Which of the following is *not* true about *Homo erectus*?  
a. They probably hunted.                      b. They were the first hominids to use fire.  
c. They may have given rise to hominids that resemble modern humans.                      d. They were found only in Africa.
- 21.** *Homo sapiens* includes  
a. Neanderthals.                          b. australopithecines.  
c. *A. africanus*.                          d. *A. afarensis*.

**Determine whether each statement below best describes Neanderthals, Cro-Magnons, or both.**

- \_\_\_\_\_ **22.** They lived in caves during the ice ages.
- \_\_\_\_\_ **23.** They are identical to modern humans in height, skull, and teeth structure.
- \_\_\_\_\_ **24.** They may have been the first hominids to develop religious views.
- \_\_\_\_\_ **25.** They may have used language.
- \_\_\_\_\_ **26.** They were talented toolmakers and artists.