



SECTION  
**12.6**

PRIMATE EVOLUTION  
**Reinforcement**

**KEY CONCEPT** Humans appeared late in Earth's history.

Humans share a common ancestor with other primates. **Primates** include all mammals with flexible hands and feet, forward-looking eyes, and enlarged brains relative to their body size. Primates also have arms that can rotate in a circle around their shoulder joint, and many primates have opposable thumbs that can move against their fingers. Besides sharing similar physical traits, primates share strong molecular similarities. Like other groups of related organisms, the relationship among the primate groups forms a many-branched evolutionary tree.

- **Prosimians** are the oldest primate group. They are mostly small animals that are active at night. Some examples are lemurs, lorises, and tarsiers.
- **Anthropoid** means “humanlike primate,” and is the term used for the group that includes all the primates that are not prosimians, including monkeys, gibbons, orangutans, chimpanzees, and gorillas.
- **Hominids** include all the species in the human lineage, both modern and extinct. Hominids are **bipedal**—they walk upright on two legs, have long lower limbs, opposable thumbs, and relatively large brains. There are many fossils of extinct hominids. *Homo sapiens*, modern humans, are the only hominids that are alive today.

Fossil evidence shows that the first appearance of *Homo sapiens* dates back to about 200,000 years ago. Many of their features are different than those of humans today.

1. What are two types of evidence that demonstrate that primates are closely related?

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2. How are prosimians different from other primates?

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3. To what two groups of primates mentioned above do humans belong?

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4. What does bipedal mean?

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5. What type of evidence indicates *Homo sapiens* have existed for about 200,000 years?

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