

In taxonomy, the superfamily Hominoidea includes all apes: chimpanzees, gibbons, gorillas, humans, and orangutans. Apes most likely evolved in Africa and spread throughout Eurasia during the middle Miocene. Most fossil apes went extinct and most extant (i.e., living) apes are being threatened by animal poaching and deforestation. With the exception of humans, all apes live in wooded tropical environments.

Hominoids differ from Old World monkeys in having a broader nasal region, broader palate and larger brains. In addition, hominoids have rounded cusps on the teeth, a large hypocone on the upper molars, and at least five cusps on the lower molars that form a “Y” pattern. Compared to Old World monkeys, hominoids have relatively long arms that indicate forelimb-dominated activities. Other differences include a robust hallux (i.e., big toe) short lumbar region, and a mediolaterally (i.e., side to side) wider thorax, and an extremely small or absent tail.

#### Instructions for Printing Puzzle:

1. Print this page on white 8 ½” x 11” heavy cardstock, although regular printer paper will also work. Using a higher printing resolution will improve the quality of the images.
2. Cut each puzzle piece along the black lines provided.
3. Mix up the pieces, then try to reassemble by matching up the correct part of the skulls. Remember that you can rotate the puzzle pieces.
4. Have fun and learn!

This puzzle contains the species (not to scale):



Gibbon  
(*Symphalangus syndactylus*)



Gorilla  
(*Gorilla gorilla beringeri*)



Human  
(*Homo sapiens*)



Orangutan  
(*Pongo pongo abelii*)

