



Discovery Guide Evolution: Life Through Time Grades 6-8

Directions

Answer the guide as you travel through *Evolution: Life Through Time*. This guide is meant to be completed while in the gallery with a chaperone.

1. **Find the lobe-finned fishes in the Devonian Period.** Mammals evolved from these types of fishes, and their muscular appendages are structured similarly to arms and legs. What three specific bones do we share with lobe-finned fishes in their front limbs?

1. _____

2. _____

3. _____

What about the back limbs?

1. _____

2. _____

3. _____

7. **Find the prehistoric whales.** These prehistoric whales were found by the University of Michigan paleontologist Philip Gingerich in *Wadi Al-Hitan*, a region of the Egyptian desert which means "valley of whales." How do they and the prehistoric whales in the atrium illustrate that whales evolved from four-legged animals?

8. **Find the primates.** Did you know that humans are apes? Identify three things you have in common with other apes:

a. _____

b. _____

c. _____

9. **Find "Mass Extinction #6?"** Complete the Preserving Biodiversity activity. What can you do to help preserve biodiversity?

2. **Find the Carboniferous forest display.** Much of the coal we burn started out as forested wetlands during the Carboniferous Period. When the plants were alive, they took carbon dioxide from the air and used the carbon to form new cells as they grew. When they were buried underground, the carbon in their tissues remained out of circulation. What happens when we burn this coal?

3. **Find *Dimetrodon* in the Permian Period.** *Dimetrodon* is not a dinosaur, but a synapsid. Humans are also synapsids. What skeletal feature allows us to know that we're both synapsids?

4. **Find *Majungasaurus*.** *Majungasaurus* was a theropod that lived during the Age of Dinosaurs. Many theropods had feathers, just like their modern bird relatives do, but they didn't use them to fly. What were its feathers likely used for?

5. **Find the *ammonite* in the "Fins, Wings, and More" section.** What kind of fossils are ammonites?

What do scientists use them for? Why is this possible?

6. **Find *Dolichorhynchops*.** *Dolichorhynchops* was a short-necked plesiosaur: a swimming reptile. In what sea did *Dolichorhynchops* live? Where was this sea located?
