

EMERGENCE OF EVOLUTIONARY THOUGHT

(Chapter 17, The Unity and Diversity of Life)

THE GREAT CHAIN OF BEING

_____ was one of the first great _____. He _____ the living things that he encountered and felt that all organisms fit into an orderly scheme.

In time, this ancient view of gradual levels of organization from _____ matter to the most complex organisms had been formalized into the “_____” (ladder of nature), also called the “The Great Chain of Being”.

The ladder stood on non-living matter and ascended rung by rung from _____ to _____, through _____ to _____ beings and upwards to _____, _____ and finally to _____. Each species had its fixed place in the divine order and was _____ since creation.

BINOMIAL NOMENCLATURE

_____ is considered the “father” of modern _____ and used a method of classifying organisms that is still used today. He was the first to place humans into an order called _____ which included apes and went on to place humans into the genus _____ and species _____. He still believed that God created all things and even classified non-living matter.

EARLY QUESTIONS

1. QUESTIONS FROM _____

When global voyages of the 16th century revealed unusual species not known in Europe, people began to question, “Where do all these species fit in the Scala Naturae?”

Furthermore, if all species had been created at the same _____ and _____, “Why were certain species found in only some parts of the world but not others? How did they cross _____ and great _____ ranges to end up where they were?”

2. QUESTIONS FROM _____

Studies of the anatomy of seemingly unrelated animals led to questions of why certain structures should be so _____ (ie. _____ of bird/bat, _____ of whale, _____ of human).

And what about _____ structures: the bones/body structures present but without any known or useful function? (ie. _____ bones in snake, _____ in whale, _____ bones in human)?

3. QUESTIONS ABOUT _____

Studies of _____ (layering of Earth’s rocks) revealed that deposits had been laid down slowly, one above the other. The layers had recognizable remains or impressions of organisms called _____.

The arrangement of the layers and fossils suggested that different organisms had lived at _____ times and simpler organisms were found in the _____ or _____ strata with the most complex organisms nearer the _____ layer.