

PERMIAN PERIOD

CYCADS CYCADEOIDS
GINKGOS
CHORDATES (Reptiles:-Therapsida)

TRIASSIC PERIOD

CHORDATES (Reptiles:-Chelonia, Ichthyosauria, Sauropterygia, Rhynchoccephalia, Squamata, Thecodontia, Crocodilia, Saurischia)

JURASSIC PERIOD

ANGIOSPERMS (First flowering plants)
CHORDATES (Reptiles:-Pterosauria, Ornithischia)
CHORDATES [Aves (first birds)]
CHORDATES [Mammals (first forms)]

CRETACEOUS PERIOD

CHORDATES (Reptiles:-Ornithischia---Ankylosauria, Ceratopsia)

TERTIARY PERIOD

CHORDATES (Mammals:-Carnivora, Pantodonta, Edentata, Dinocerata, Proboscidea, Perissodactyla, Artiodactyla, Primates)

QUATERNARY PERIOD

CHORDATES (most modern families, subfamilies, genera, and species of plants and animals; and man)

4. Chronology of Geologic Time

"The age of the earth has been estimated by several different methods. Some of these, such as computing the salinity of the sea or the rate of erosion, only serve to indicate that our planet is very, very old. On the other hand, the so-called 'radioactive clock' can give us rather accurate age determinations based upon the rate of disintegration of certain radioactive minerals. The oldest rocks yet tested by the latter method indicate that the earth is between three and five billion years old.

"Salt Content of the Sea. It is believed by many geologists that the oceans were originally composed of fresh water and that the salt was dissolved from the soil and carried to the sea by streams. The conversion of such large bodies of fresh water to salt water must, of course, have taken a long period of time. Age estimates based on this method indicate that it must have taken approximately one hundred million years for the oceans to reach their present degree of salinity.