GEOLOGY

Section 2. Geological Scheme [or Primordial Life]

Point I. The era before the appearance of life - Archaean, [formerly known as the Azoic or lifeless era]
(59:0.2) 1. The era before the appearance of life covers the first four hundred and fifty million years - roughly from the time the planet reached its present size until the appearance of life. Your scholars call this period the Archaean [or Archaic Era]
Range 450,000,000 years to 1,000,000,000 or that's 550,000,000 years ago.

Point II. The era of the origin of life - Proterozoic, [Beginning of life]
(59:0.3) 2. The age of origin of life continues for the next hundred and fifty million years. This epoch separates the era before the emergence of life or the era of cataclysms from the next period of more developed marine life. This era is known to your explorers as the Proterozoic, [or Algonic Era].
Range 150,000,000 years to 550,000,000 or that's 400,000,000 years ago.

Point III. Era of Marine Life - Paleozoic, [Ancient Life]
(59:0.4) 3. The era of marine life spans the next two hundred and fifty million years and is known to you as the Paleozoic [or Paleozoic Era].
Range 250,000,000 years to 400,000,000 or that is 150,000,000 years ago.

Point A. The era of trilobites - the Cambrian period
(59:1.20) Such was the biological picture of Urantia at the end of that long period of world history, covering fifty million years, called the Cambrian.
Range 50,000,000 years to 400,000,000 or that's 350,000,000 years ago.

Point B. Era of Invertebrates - Ordovician Period
(59:2.13) Thus ends the history of evolution during the second long period of marine life known to your geologists as the Ordovician.
Range 50,000,000 years to 350,000,000 or that is 300,000,000 years ago.

Point C. The era of brachiopods - the Silurian period
(59:3.12) This concludes the third period in the development of marine life, covering twenty-five million years and known to your explorers as the Silurian.
Range 25,000,000 years to 300,000,000 or that is 275,000,000 years ago.

Point D. The Age of Fishes - The Devonian Period
(59:4.18) Thus ended one of the longest periods in the evolution of marine life, the age of fish. This period lasted almost fifty million years - the Devonian.
Range 50,000 years to 275,000,000 or that's 225,000,000 years ago.

Point E. The Age of Frogs - Carboniferous Period
(59:5.14) The land periodically rose and subsided as the sea level fluctuated due to processes occurring at the bottom of the ocean. The restless condition of the crust - the sedimentation and uplift of the land, combined with the rich vegetation of the coastal marshes, helped to form large coal deposits, hence this period is known as the Carboniferous. Throughout the world, the mild climate was maintained.
Range 50,000 years to 225,000,000 or that's 175,000,000 years ago.

Point F. The Era of Biological Upheaval - the Permian Period
(59:6.11) The end of this period of biological upheaval, known to your researchers as the Permian, also marks the end of the Paleozoic, an era covering one quarter of all planetary history and lasting two hundred and fifty million years.
Range 25,000,000 years to 175,000,000 or that's 150,000,000 years ago.

Point IV. Era of Early Land Life - Mesozoic, [Intermediate Life]
(59:0.5) 4. The era of early terrestrial life continued for the next hundred million years and was known as the Mesozoic [or Mesozoic Era].

Range 100,000,000 years to 150,000,000 or that's 50,000,000 years ago.

Point A. The era of early ruminants - the Triassic period
(60:1.1) Erosional deposits in this period are mainly conglomerates, shale and sandstone. Gypsum and red beds in all the sedimentary rocks of both Europe and America indicate the aridity of the climate of these continents. These arid regions were subjected to extensive erosion under the influence of the periodic heavy rains that poured over the surrounding highlands.
Range 25,000,000 years to 150,000,000 or that is 125,000,000 years ago.

Point B. The Age of Reptiles - The Jurassic Period
(60:2.1) 120,000,000 years ago a new period in reptilian development began. This stage was marked by the evolution and decline of the dinosaurs. In terms of their size, land animals reached the limit of their development and by the end of the period practically disappeared from the face of the earth. There were dinosaurs of all sizes, from the species less than two feet long to the gigantic non-carnivorous dinosaurs twenty-three meters long; no living creature has reached such dimensions since then.
Range 25,000,000 years to 125,000,000 or that is 100,000,000 years ago.

Point C. Ending Era of Ruminants, Age of Birds, Period of Flowering Plants - Cretaceous Period
(60:3.1) The vast Cretaceous period got its name from the predominance in the seas of the prolific Cretaceous-forming marine fora-minifera. This period brought Urantia near the end of the long reign of the reptiles and witnessed the appearance on land of flowering plants and birds. In this era, the continental drift in the west and south directions was completed, accompanied by colossal deformations of the crust with ubiquitous lava flows and extensive volcanic activity.
Range 50,000,000 years to 100,000,000 or that is 50,000,000 years ago.

Point V. The Age of Mammals - Cenozoic Period [Modern Life]
(61:0.2) During the Cenozoic, the world's landscape presented an attractive sight: hilly heights, spacious valleys, full-flowing rivers, and vast forests. Twice through this stretch of time the Isthmus of Panama rose and fell; three times this section reached the Bering Strait Bridge. The types of animals were as numerous as they were varied. The forests abounded in birds, and the whole world was a paradise for animals, notwithstanding the continual struggle of evolutionary species for supremacy.
Range 50,000,000 years to 50,000,000 years back to the present time.

Point A. Period of new continental droughts, age of early mammals - Eocene period
(61:1.1) 50,000,000 years ago the continents were generally either above the level of the sea or only barely hidden under water.
Range 15,000,000 years to 50,000,000 or that's 35,000,000 years ago.

Point B. Period of new floods, era of more developed mammals - the Oligocene period
(61:2.1) This period was characterized by the further and rapid evolution of placental mammals, with the appearance of more advanced mammal species.
Range 10,000,000 years to 35,000,000 or that's 25,000,000 years ago.

Point C. Period of formation of modern forests, the era of the elephant and the horse - the Miocene period
(61:3.1) The uplift of the land and the parting of the seas brought about a gradual change in the world's climate, which became cooler but still mild. In Greenland, redwoods and magnolias grew, but subtropical plants began to migrate south. By the end of the given period, these heat-loving plants and trees basically disappeared in the northern latitudes, and their place was taken by more cold-resistant plants and deciduous trees.
Range 15,000,000 years to 25,000,000 or that's 10,000,000 years ago.

Point D. A period of new uplift of the continents, the last great migration of mammals - the Pliocene period.
(61:4.1) In this period the pre-glacial uplift of the land in North America, Europe, and Asia took place. The topography of the land was undergoing enormous changes. New mountain ranges appeared, currents changed their direction, and individual volcanic eruptions occurred all over the world.
Range 8,000,000 years to 10,000,000 or that's 2,000,000 years ago.

Point E. Ice age - Pleistocene period
(61:5.1) Towards the close of the preceding period vast tracts of northeastern North America and northern Europe were highly elevated; in North America, the vast territories were located at an altitude of 9,000 meters and above.

Previously, a mild climate prevailed at these latitudes, and the Arctic waters evaporated freely, remaining ice-free almost until the end of the Ice Age.
Range 1,965,000 years to 2,000,000 or that's 35,000 years back.