

EARTH'S GEOLOGICAL STRUCTURE

THE HISTORY OF EARTH'S GEOLOGICAL STRUCTURE CAN BE DIVIDED INTO FIVE ERAS-

AZOIC ERA (NON-LIVING ERA) (4600 - 600 MILLION YEARS AGO)

- It refers to the Precambrian Period in which the Continental landform/ Plateau(Shield) evolved. There is no evidence of the origin of organisms in this era.

MESOZOIC ERA (225 - 65 MILLION YEARS AGO)

- The Mesozoic Era is the age of the dinosaurs and lasted almost 180 million years from approximately 225 to 65 million years ago.
- At the beginning of the Mesozoic era the continents as we know them were joined together as the massive mother continent, Pangea. It was during the age of the dinosaurs that Pangea was transformed to the modern continents.
- Pangea became two great continents known as Laurasia and Gondwana and the Atlantic Ocean began to grow.
- A mass-extinction marked the beginning and end of the Mesozoic Era. The event that caused the transition from the Paleozoic era to the Mesozoic era was the greatest extinction this earth has seen.
- This extinction wiped out about 95% of all marine life and 70% of land-life. This allowed the dinosaurs to step in and settle into their role as the lords of the earth.

NEOZOIC ERA (1 MILLION YEARS AGO - PRESENT AGE)

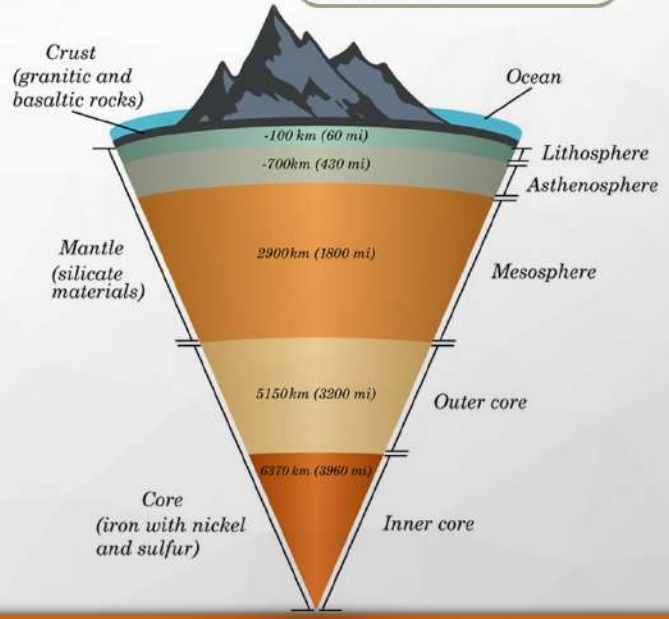
- Geologically Neozoic era is the age that resulted in formation of Islands, Plains and Delta regions on the Earth.
- The word Neozoic means new life. The beginning of this era was characterized by the great ice Age when glaciers appeared.
- In the beginning humans played a minor role. Later, humans lived in caves and discovered the use of fire and with other advancements this is the age where human activities also contribute to changes in Earth's Geology.

PALEOZOIC ERA (600 - 225 MILLION YEARS AGO)

- The Paleozoic Era, which ran from about 600 million years ago to 225 million years ago, was a time of great change on Earth.
- The era began with the breakup of one supercontinent and the formation of another. Plants became widespread. And the first vertebrate animals colonized land.
- It is also the period in which Mountain building activity started and resulted in formation of old fold and old block mountains. Appalachians and Urals are the some examples of Paleozoic Era mountains.

CENOZOIC ERA (65 - 1 MILLION YEARS AGO)

- The word Cenozoic means recent life. This era lasted for approximately 65 million years.
- Geologically, the Cenozoic is the era when the continents moved into their current positions. Australia-New Guinea, having split from Pangea, drifted north and, eventually, collided with South-east Asia; Antarctica moved into its current position over the South Pole; the Atlantic Ocean widened and, later in the era (2.8 million years ago), South America became attached to North America with the isthmus of Panama.
- India collided with Asia 55 to 45 million years ago creating the Himalayas; Arabia collided with Eurasia, closing the Tethys Ocean and creating the Zagros Mountains, around 35 million years ago. The Himalayas are referred as Young fold Mountains.



OFFICERS IAS ACADEMY
IAS ACADEMY BY IAS OFFICER