

Review for Paleontology Final **Thursday, Dec. 7th @ 11:00 a.m.**

Physical History of the Mesozoic

terms - Panagea, Panthalassa, Laurasia, Gondwana, Tethys Sea, Passive margins, Active margins, Cordilleran orogeny, Nevadan orogeny, Sevier orogeny, Laramide orogeny, suspect terranes,

- the steps in the breakup of Panagea
- the history of the East coast through the Mesozoic
- the history of the West coast through the Mesozoic
- the major orogenies in the Mesozoic and what was formed during each one

Biological History of the Mesozoic

terms - thecodont, dinosaur, Saurischia, Sauropods, Theropods, Ornithischia, Stegosauria, Ankylosauria, Ornithopoda, Ceratopsia, Pachycephalosauria, Pterosaurs, Archaeopteryx, the K-T boundary

- the evolution of the dinosaur
- the dinosaur evolutionary 'tree'
- examples of theropods and sauropods
- examples of Ornithician dinosaurs
- possible causes for the extinction of the dinosaurs

Physical History of the Cenozoic (Tertiary Period)

terms - the Laramide Orogeny, the Circum-Pacific Orogenic belt, the Alpine-Himalayan Orogenic belt, diapirism, salt diapirs, Basin and Range Province, Rocky Mountains, Farallon Plate

- the final breakup of Panagea
- the history of the East coast through the Tertiary
- the history of the West coast through the Tertiary
- the significance of salt diapirs in the Gulf of Mexico
- what caused the formation of the modern Rocky Mountains?

Physical History of the Quaternary Period

Pleistocene Ice Ages, paleothermometer, oxygen isotopes, Palynology, glacial stages, interglacial stages, Wisconsinan Glacial Stage, Sangamon Interglacial Stage, Illinoian Glacial Stage, Yarmouth Interglacial Stage, Kansan Glacial Stage, Aftonian Interglacial Stage, Nebraskan Glacial Stage, isostatic rebound, land bridges, channeled scablands, pluvial lakes, the Great Lakes, Milankovitch Cycles, eccentricity, precession, axial tilt

- Tectonic conditions leading up to the beginning of the Ice Ages
- Evidence and possible explanation for Cenozoic global cooling
- Use of oxygen isotopes in forams as a paleothermometer
- Use of pollen as a paleoclimatic indicator
- How glacial and interglacial stages are named
- Physical features formed by Pleistocene glaciation
- How Milankovitch Cycles may have brought about the Ice Ages

Biological History of the Cenozoic Era - the mammals

Mammal, synapsids, sauropsids, pelycosaur, therapsid, cynodont, triconodonts, Docodonts, monotremes, Eupantotheres, Marsupials, Placentals, creodonts, Artiodactyls, Perissodactyls, angiosperms, Miocene grasses

- Biological criteria for the recognition of fossil mammals.
- Stages of evolution of the mammals from reptiles.
- How Miocene grasses affected the evolution of herbivorous Placental mammals.
- Theories for the Pleistocene extinction of large Placental mammals

Biological History of the Cenozoic Era II - the primates

primate, prosimians, anthropoids, New World Monkeys, Old World Monkeys, hominoids, hominids, dryopithecine, S. tchadensis, Australopithecines, Homo Habilis, Homo Erectus, Homo Sapiens, Neanderthalensis, Cro-Magnon

- Biological criteria for the recognition of fossil primates.
- Evolution of hominids
- Biological differences between hominids and other anthropoids
- Theory of how hominids evolved

Know the Geologic Time Scale !