

- Subclass Synapsida (forms leading toward mammals)
 - Order Pelycosauria -- *Dimetrodon*, *Edaphosaurus*, *Ophiacodon*
 - Order Therapsida (mammal-like reptiles) -- *Cynognathus*, *Kannemeyrcia*
- Class Aves (birds)
 - Subclass Archaeornithes (archaic birds) -- *Archaeopteryx*, *Archaeornis*
 - Subclass Neornithes (more advanced birds) -- *Ichthyornis*, *Hesperornis*
 - (toothed birds of the Cretaceous), *Diatryma* (Eocene), *Phororhacos* (Miocene), *Dinornis* (moa, Pleistocene), *Aepyornis* (Pleistocene "elephant bird" of Madagascar), ostrich, rhea, cassowary, emu, kiwi, penguins, golden plover, *Gallus* (fowls), heath hen, dodo
- Class Mammalia (mammals)
 - Subclass Prototheria (egg-laying)
 - Order Monotremata -- *Ornithorhynchus* (duckbill), *Echidna* (spiny anteater)
 - Order Multituberculata (an archaic extinct group)
 - Subclass Metatheria (young born alive, placenta usually undeveloped or poor)
 - Order Pantotheria
 - Order Triconodonta
 - Order Symmetrodonta
 - Order Marsupialia (pouched mammals) -- opossum, Australian "cats," Tasmanian "devil," Tasmanian "wolf," bandicoot, Australian "squirrels," flying phalanger, koala or Australian "bear," wombat, kangaroo, wallaby
 - Subclass Eutheria (placental mammals)
 - Order Insectivora (insect-eaters) -- hedgehog, mole, shrews, tree shrew
 - Order Carnivora (flesh-eaters)
 - Suborder Creodonta (archaic flesh-eaters)
 - Suborder Fissipedia (land carnivores)
 - Family Viverridae -- mongoose, civet, genet
 - Family Hyaenidae -- hyenas
 - Family Felidae -- *Dinictis* (Oligocene cat), *Smilodon* (Pleistocene saber-tooth), *Actinonyx* (cheetah), *Felis* (most living felids)
 - Family Mustelidae -- weasel, marten, skunks, badgers, wolverine, otter, sea otter
 - Family Canidae -- *Cynodictis* (Oligocene), *Canis* (dog, wolf, jackal), *Vulpes* (fox)
 - Family Procyonidae -- raccoon, coati, panda, giant panda
 - Family Ursidae -- *Ursus* (most bears), *Thalarctos* (polar bears)
 - Suborder Pinnipedia (marine carnivores)
 - Family Otariidae -- sea lion, fur seal, elephant seal
 - Family Odobaenidae -- walrus
 - Family Phocidae -- Atlantic seal
 - Order Condylarthra (primitive ungulates)
 - Order Dinocerata -- *Uintatherium* (Eocene)
 - Order Perissodactyla (odd-toed ungulates)
 - Family Equidae (horses) -- *Eohippus*, *Orohippus* (Eocene), *Mesohippus*, *Miohippus* (Oligocene), *Parahippus*, *Merychippus* (Miocene), *Hipparion* (Miocene-Pliocene), *Equus* (Pleistocene-Recent)
 - Family Tapiridae -- tapirs
 - Family Rhinocerotidae -- *Hyracodon*, *Baluchitherium* (Oligocene), *Teleoceras* (Miocene), *Rhinoceros* (living forms)