

Table 23.1 The geological timetable

Era	Period	Epoch	Age (millions of years)	Some Important Events in the History of Life
Cenozoic	Neogene	Recent	0.01	Historic time
		Pleistocene	1.8	Ice ages; humans appear
		Pliocene	5	Ape-like ancestors of humans appear
		Miocene	24	Continued radiation of mammals and angiosperms
	Paleogene	Oligocene	38	Origins of most modern mammalian orders, including apes
		Eocene	54	* Angiosperm dominance increases; further increase in mammalian diversity
		Paleocene	65	* Major radiation of mammals, birds, and pollinating insects
Mesozoic	Cretaceous		144	* Flowering plants (angiosperms) appear; dinosaurs become extinct at end of period
	Jurassic		213	Gymnosperms continue as dominant plants; dinosaurs dominant
	Triassic		248	* Gymnosperms dominate landscape; first dinosaurs, mammals, and birds
Paleozoic	Permian		286	* Radiation of reptiles; origin of mammal-like reptiles; origins of most modern orders of insects; mass extinction of many marine invertebrates
	Carboniferous		360	Extensive forests of vascular plants; first seed plants; origin of reptiles; amphibians dominant
	Devonian		408	* Diversification of bony fishes; first amphibians and insects
	Silurian		438	Diversity of jawless vertebrates; invasion of land by vascular plants and arthropods
	Ordovician		505	* First vertebrates (jawless fishes); marine algae abundant
	Cambrian		590	Origin of most invertebrate phyla; diverse algae
Precambrian			700	Origin of first animals
			1500	* Origin of eukaryotes
			2500	Oxygen-producing photosynthesis
			3500	* Oldest definite fossils known (prokaryotes)
			4600	Approximate origin of the Earth