

Some Important Events in the History of Life

Millions of Years Ago

Epoch

Period

Era

Relative Time Span

Historical time

Ice ages; humans appear

Ancestors of humans appear

Mammals and flowering plants continue to diversify

Many primate groups, including apes, appear

Flowering plants increase in abundance; most modern mammals appear

Mammals, birds, and pollinating insects increase greatly in diversity

Flowering plants appear; many groups of organisms, including dinosaurs, become extinct at end of period (Cretaceous extinctions)

Cone-bearing plants dominate kingdom; dinosaurs diversify

Many marine and terrestrial organisms go extinct; reptiles diversify; mammal-like reptiles and most modern insects appear

Forests of vascular plants; first seed plants; reptiles appear; amphibians dominant

Diversity of jawless fishes; first amphibians and insects

Marine algae abundant; plants and arthropods colonize land

Most modern animal groups appear (Cambrian explosion)

Diverse soft-bodied invertebrate animals; diverse algae

Oldest fossils of eukaryotic cells

Atmospheric oxygen begins to increase

Oldest fossils of cells (prokaryotes)

Earliest traces of life

Approximate time of origin of Earth

0.01

1.8

5

23

35

57

65

144

206

245

290

363

409

439

510

543

600

2,200

2,700

3,500

3,800

4,600

Recent

Pleistocene

Pliocene

Miocene

Oligocene

Eocene

Paleocene

Cretaceous

Jurassic

Triassic

Permian

Carboniferous

Devonian

Silurian

Ordovician

Cambrian

Quaternary

Tertiary

Cenozoic

Mesozoic

Paleozoic

Precambrian

