

# Geological

## Overview

by

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### Contents

The Great Geological Eras.....	1
Alternative Designation .....	4
Era Name Meanings .....	6

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### The Great Geological Eras

The Great Geological Eras and Periods are approximated and summarized in the following Tables:

The Great Geological Eras And Periods			
mya - Million Years Ago kya - Thousand Years Ago			
Date	Era	Period	Comments
Present To 2.5 mya	Cenozoic	Quaternary  Holocene 12 kya - Present Pleistocene 2.5 mya - c.12 kya	Age of Modern Humans  c.100 kya Homo Sapiens
2.5 mya To 65 mya		Present  65 mya	Age of the Mammals Australian Marsupials South American specialized plant eaters South American Marsupial Meat Eaters 1st Hominids
65 mya To 145 mya	Mesozoic  65 mya To	Cretaceous	Last Dinosaurs  140 mya First Birds

## The Great Geological Eras And Periods

mya - Million Years Ago  
kya - Thousand Years Ago

Date	Era	Period	Comments
145 mya To 208 mya	245 mya	Jurassic	Dinosaurs Dominate the Land  190 mya Early Mammals  150 mya Archaeopteryx
208 mya To 245 mya		Triassic	200 mya Origin of Dinosaurs  230 mya First Mammals  210 mya Sea Reptiles  200 mya Flying Reptiles
245 mya To 290 mya	Palaeozoic  245 mya To 570 mya	Permian	Age of Mammal-like Reptiles  (Including First Plant-eaters)
290 mya To 362 mya		Carboniferous	Age of Amphibians  First Reptiles  300 mya Coal Forests
362 mya To 408 mya		Devonian	The Age of Fishes  First Back-boned Land Animals  380 mya First Insects
408 mya To 439 mya		Silurian	First Land Plants
439 mya To 510 mya		Ordovician	First Vertebrates  500 - 435 mya Trilobites Etc

### The Great Geological Eras And Periods

mya - Million Years Ago  
kya - Thousand Years Ago

Date	Era	Period	Comments
510 mya To 570 mya		Cambrian	First Animals with Hard Parts  First Fish 500 mya
570 mya To 610 mya		Vendian	First Soft Bodied Animals
610 mya To 2,500 mya	Proterozoic  570 mya To 2,500 mya		1,000 mya First Multi-cellular Animals  670 mya First Animal Fossils
2,500 mya To 4,000 mya	Archaean  2,500 mya To 4,000 mya		3,500 mya First Bacteria and Algae  Oldest known Fossils  3,800 mya Oldest known rocks on Earth
4,000 mya To 4,600 mya	Hadean  4,000 mya To 4,600 mya		Origin of Earth

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## Alternative Designation

Some authorities use the following alternative designations.

<b>Alternative Designation</b>	
mya - Million Years Ago kya - Thousand Years Ago	
<b>Period</b>	<b>Description</b>
Pre-Cambrian 4,600-570 mya	Earth formed 4,600 mya First living things 3,200 mya First animal fossils c.670 mya
Cambrian 570-510 mya	First fish 500 mya
Ordovician 5100-439 mya	Many Trilobites, and other animals without backbones
Silurian 4395-408 mya	First land plants 400 mya
Devonian 408-362 mya	First insects 380 mya First amphibians 350 mya
Carboniferous 362-290 mya	Early reptiles 300 mya Coal forests 300 mya
Permian 290-245 mya	More reptiles 280 mya
Triassic 245-208 mya	Early mammals 230 mya Sea reptiles 210 mya Flying reptiles 200 mya First dinosaurs 200 mya
Jurassic 208-145 mya	Early mammals 190 mya Archaeopteryx 150 mya
Cretaceous 145-65 mya	First birds 140 mya
Palaeocene 65-55 mya	Dinosaurs die out 65 mya Mammals take over
Eocene 55-38 mya	First horses 65 mya First elephants 40 mya
Oligocene 38-22 mya	First apes
Miocene 22-6 mya	First seals, deer, giraffes 20 mya
Pliocene 6-c.2.5 mya	Man-apes 5 mya
Pleistocene c.2.5 mya to 12 kya years ago	First humans beings 2 mya Ice age begins c.18 kya years ago

<b>Alternative Designation</b>	
mya - Million Years Ago kya - Thousand Years Ago	
<b>Period</b>	<b>Description</b>
Holocene 12 kya years ago until now	Last ice age ends c.10 kya years ago  First farmers c.10 kya years ago

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## Era Name Meanings

<b>Era Name Meanings</b>	
mya - Million Years Ago kya - Thousand Years Ago	
<b>Era</b>	<b>Meaning</b>
Cambrian	This period gets its name from Cambria, the Roman name for Wales.
Ordovician	Named after the Ordovices - a Celtic tribe who lived in Wales.
Silurian	Takes its name from the Silures - a Celtic tribe, which lived in the Welsh borders in Roman Britain.
Devonian	The name comes from Devonshire - a county in the southwest of Britain.
Carboniferous	When most of the coal was formed. "Carbo" is the Latin for "coal".
Permian	Named after the Perm province in the Ural Mountains, USSR.
Triassic	From three rock layers in Germany. "Treis" is the Greek for "three".
Jurassic	Called after the Jura mountains in Switzerland and France.
Cretaceous	Named after chalk laid down in North America, Australia, and Europe. "Creta" means "chalk" in Latin.
Tertiary	The next five periods are called the Tertiary, and are also known as the "age of the mammals".  The five Tertiary periods are:  Palaeocene - 65-57 mya Eocene - 57-34 mya Oligocene - 34-23 mya Miocene - 23-5 mya Pliocene - 5- 2.5 mya
Quaternary	The last two eras, called Quaternary, are when the remains of human beings and their artefacts are found.  The Two Quaternary periods are:  Pleistocene 2.5 mya - c.12 kya Holocene 12 kya - Present

End

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