

PHANEROZOIC and PRECAMBRIAN CHRONOSTRATIGRAPHY 2016

eonothem	era	system	Series/ Epoch	Stage/Age	Age Ma	GSSP
Phanerozoic	Cenozoic	Quaternary	Anthropocene *			
			Holocene	Upper	4.2 ka	
				Middle	8.2 ka	
				Lower	11.8 ka	👉
			Pleistocene	Upper	126 ka	
				"Ionian"	773 ka	
		Calabrian		1.80	👉	
		Neogene	Pliocene	Gelasian	2.58	👉
				Piacenzian	3.60	👉
				Zanclean	5.33	👉
			Miocene	Messinian	7.25	👉
				Tortonian	11.63	👉
				Serravallian	13.82	👉
		Paleogene	Oligocene	Langhian	15.97	👉
				Burdigalian	20.44	👉
				Aquitanian	23.03	👉
	Chatthian			28.1	👉	
	Rupelian			33.9	👉	
	Priabonian			38.0	👉	
	Eocene		Lutetian	41.0	👉	
			Ypresian	47.8	👉	
			Bartonian	56.0	👉	
	Paleocene		Thanetian	59.2	👉	
			Selandian	61.6	👉	
			Danian	66.0	👉	
			Maastrichtian	72.1	👉	
			Campanian	84.2	👉	
			Santonian	86.5	👉	
	Mesozoic		Cretaceous	Upper	Coniacian	89.8
		Turonian			93.9	👉
		Cenomanian			100.5	👉
		Albian			113.1	👉
Lower		Aptian		126.3	👉	
		Barremian		130.8	👉	
		Hauterivian		134.7	👉	
		Valanginian		139.4	👉	
Jurassic		Upper	Berriasian	145.0	👉	
			Tithonian	152.1	👉	
			Kimmeridgian	157.3	👉	
			Oxfordian	163.1	👉	
		Middle	Callovian	166.1	👉	
			Bathonian	168.3	👉	
			Bajocian	170.3	👉	
			Aalenian	174.2	👉	
Lower	Toarcian	183.7	👉			
	Pliensbachian	191.4	👉			
	Sinemurian	199.4	👉			
	Hettangian	201.4	👉			
Triassic	Upper	Rhaetian	~ 209.6	👉		
		Norian	~ 228.5	👉		
Camrian		237.0	👉			

* Anthropocene under discussion

eonothem	era	system	Series/ Epoch	Stage/Age	Age Ma	GSSP
Phanerozoic	Mesozoic	Triassic	Middle	Ladinian	237.0	👉
				Anisian	241.5	👉
				Anisian	246.8	👉
			Lower	Olenekian	249.8	👉
				Induan	251.9	👉
				Changhsingian	254.2	👉
		Permian	Lopingian	Wuchiapingian	259.8	👉
				Capitanian	265.1	👉
				Wordian	268.8	👉
				Roadian	272.3	👉
				Kungurian	282.0	👉
			Cisuralian	Artinskian	290.1	👉
				Sakmarian	295.0	👉
	Asselian			298.9	👉	
	Gzhelian			303.4	👉	
	Kasimovian			306.7	👉	
	Carboniferous	Pennsylvanian	Upper	Moscovian	314.6	👉
			Middle	Bashkirian	323.2	👉
			Lower	Serpukhovian	330.9	👉
		Mississippian	Upper	Viséan	346.7	👉
			Middle	Tournaisian	358.9	👉
			Lower	Famennian	372.2	👉
	Devonian	Upper	Frasnian	382.7	👉	
			Givetian	387.7	👉	
			Eifelian	393.3	👉	
		Lower	Emsian	407.6	👉	
			Pragian	410.8	👉	
			Lochkovian	419.2	👉	
			Pridoli	423.0	👉	
	Silurian	Ludlow	Ludfordian	425.6	👉	
			Gorstian	427.4	👉	
		Wenlock	Homerian	430.5	👉	
			Sheinwoodian	433.4	👉	
		Llandovery	Telychian	438.5	👉	
			Aeronian	440.8	👉	
			Rhuddanian	443.8	👉	
			Hirnantian	445.2	👉	
			Upper	Katian	453.0	👉
				Sandbian	458.4	👉
	Darriwilian	467.3		👉		
	Middle	Dapingian	470.0	👉		
		Floian	477.7	👉		
		Tremadocian	485.4	👉		
	Ordovician	Furongian	Stage 10	489.5	👉	
			Jiangshanian	494	👉	
		Upper	Paibian	497	👉	
			Guzhangian	500.5	👉	
Drumian			504.5	👉		
Middle		Stage 5	509	👉		
		Stage 4	514	👉		
		Stage 3	~ 520	👉		
Lower		Stage 2	~ 530	👉		
		Fortunian	541.0	👉		

eonothem	era	system	Age Ma	GSSP/GSSA	
Precambrian	Proterozoic	Neo-proterozoic	Ediacaran	541	👉
			Cryogenian	635	👉
			Tonian	720	👉
		Meso-proterozoic	Stenian	1000	👉
			Ectasian	1200	👉
			Calymmian	1400	👉
	Paleo-proterozoic	Statherian	Orosirian	1600	👉
			Rhyacian	1800	👉
		Siderian	2050	👉	
			2300	👉	
	Archean	Neo-archean	2500	👉	
			2800	👉	
		Meso-archean	3200	👉	
Paleo-archean	3600	👉			
	Eoarchean	4000	👉		
Hadean (informal)			~4560		

Units of the international chronostratigraphic scale with estimated numerical ages.

Colors are according to the Commission for the Geological Map of the World.

Subdivisions of the Phanerozoic (~541 Ma to Present) and the base of the Ediacaran are defined by a basal Global Boundary Stratotype Section and Point (GSSP 🏹), whereas the Precambrian units are formally subdivided by absolute age (Global Standard Stratigraphic Age, GSSA).

Stratigraphic information and details on international and regional geologic units can be found on the websites of the **Geologic TimeScale Foundation**

<https://engineering.purdue.edu/stratigraphy> and the **ICS** www.stratigraphy.org.

This chart was drafted by Gabi Ogg