

# GEOLOGIC TIME SCALE

Compiled by Brian Grant, May 2003  
from, "Geoscience Reporting Guidelines"

PHANEROZOIC						EON	ERA												
CENOZOIC			MESOZOIC			PALEOZOIC			PRECAMBRIAN										
PERIOD	EPOCH / STAGE		Age Ma	PERIOD	EPOCH / STAGE	Age Ma	PERIOD	EPOCH / STAGE	Age Ma	PERIOD	Age Ma								
<b>TERTIARY</b>	<b>QUATERNARY</b>	Holocene	0.01	<b>CRETACEOUS</b>	Maastrichtian	65.0 ± 2	<b>PERMIAN</b>	Changxingian	251 ± 0.4	<b>PROTEROZOIC</b>	<b>Hadrynian (late)</b>	Ediacaran	543.9						
		Pleistocene	1.64		Longtanian	253 ± 2		Capitanian	256 ± 5			Varangian	605						
	<b>NEOGENE</b>	<b>Pliocene</b>	L Piacenzian		3.40 ± 1.35	Wordian		264 ± 2	Roadian			269 ± 7	<b>Neoproterozoic</b>	Artinskian	280 ± 4	<b>Aphebian (early)</b>	Cryogenian	850	
			E Zanclean		5.2 ± 1.5	Santonian		83 ± 4	Sakmarian			285 ± 10		Tonian	1000				
		<b>Miocene</b>	<b>L</b>		Messinian	6.7 ± 2.3		Coniacian	86.6 ± 3		Asselien	300 ± 4		Stenian	1200		<b>Mesoproterozoic</b>	Ectasian	1400
					Tortonian	10.4 ± 1.5		Turonian	88.5 ± 2		Gzhelian	303 ± 3		Calymnian	1600				
					Langhian	14.2 ± 1.8		Cenomanian	90.4 ± 2		Kasimovian	306 ± 5	<b>Paleoproterozoic</b>	Satherian	1800				
			<b>M</b>		Serravallian	16.3 ± 1		Albian	97.0 ± 2		Moscovian	311 ± 3		Orosirian	2050				
					Langhian	21.5 ± 1.8	Aptian	112 ± 2	Bashkirian		314 ± 5	Rhyacian	2300						
					Burdigalian	23.3 ± 1	Barremian	124.5 ± 13	Serpukhovian		327 ± 6	Siderian	2500						
	<b>PALEOGENE</b>	<b>Oligocene</b>	L Chattian		29.3 ± 1.5	Hauterivian	131.8 ± 8	Visean	342 ± 3		<b>ARCHEAN</b>	Neoarchaeon (late)	2800	<b>HADEAN</b>	base not defined ~4400 Ma				
			<b>E</b>		Rupelian	35.4 ± 1.4	Valanginian	135.0 ± 8	Tournaisian			342 ± 3	Mesoarchaeon (middle)			3200			
					Priabonian	38.6 ± 1.5	Berriasian	144.8 ± 3.1	Famennian	355 ± 4		Paleoarchaeon (early)	3600						
			<b>Eocene</b>		<b>L</b>	Lutetian	42.1 ± 1.8	Kimmeridgian	151.5 ± 1.2	Givetian		383	Eoarchaeon (earliest)			3800			
						Ypresian	50 ± 1.5	Tithonian	154.7 ± 1.0	Eifelian	387.5								
		Danian				60.5 ± 2.3	Oxfordian	156.6 ± 2.3	Emsian	394									
		<b>TRIASSIC</b>	<b>JURASSIC</b>		<b>M</b>	Thanetian	65 ± 2	Bathonian	159.7 ± 0.5	Pragian	409.5								
						Triassic	65 ± 2	Callovian	154.7 ± 1.0	Lochkovian	413.5								
								Bajocian	166.0 ± 1.1	Pridolian	418								
								Aalenian	174.0 ± 4.1	Ludlovian	419								
							Toarcian	178 ± 1.5	Wenlockian	423									
						Pliensbachian	183.6 ± 1.5	Llandoveryian	428										
	<b>CAMBRIAN</b>	<b>DEVONIAN</b>	<b>L</b>			Sinemurian	192.0 ± 4.5	Arenigian	449										
						Hettangian	197.0 ± 2.7	Tremadocian	458										
						Rhaetian	199.6 ± 0.7		464										
						Norian	209.6 ± 4.1		470										
						Carnian	220.7 ± 4.4		470										
						Ladinian	227.4 ± 4.5		485										
						Spathian	239.5 ± 6.5		495										
						Dienerian	244 ± 4		505										
		Smithian	247 ± 4		518														
		Griesbachian	251 ± 0.4		522														
					525														
					528														
					531														
					543.9														