

TIME SCALE

Interval	Rank of Interval	Label	Base	Top
Phanerozoic	Eon (Eonothem)		544.0	0.0
Cenozoic	Era (Erathem)		65.0	0.0
Quaternary	Period (System)	Q	1.8	0.0
Holocene	Epoch (Series)	R	0.0	0.0
Pleistocene	Epoch (Series)	P	1.8	0.0
Neogene	Period (System)	N	22.9	1.8
Pliocene	Epoch (Series)	P	5.3	1.8
Miocene	Epoch (Series)	M	22.9	5.3
Paleogene	Period (System)	P	65.0	22.9
Oligocene	Epoch (Series)	O	33.5	22.9
Eocene	Epoch (Series)	E	54.8	33.5
Paleocene	Epoch (Series)	P	65.0	54.8
Mesozoic	Era (Erathem)		253.0	65.0
Cretaceous	Period (System)	K	142.0	65.0
<i>Late Cretaceous</i>	Subperiod (Subsystem)	lK	99.0	65.0
<i>Early Cretaceous</i>	Subperiod (Subsystem)	eK	142.0	99.0
Jurassic	Period (System)	J	200.0	142.0
<i>Late Jurassic</i>	Subperiod (Subsystem)	lJ	157.0	142.0
<i>Middle Jurassic</i>	Subperiod (Subsystem)	mJ	178.0	157.0
<i>Early Jurassic</i>	Subperiod (Subsystem)	eJ	200.0	178.0
Triassic	Period (System)	T	253.0	200.0
<i>Late Triassic</i>	Subperiod (Subsystem)	lT	237.0	200.0
<i>Middle Triassic</i>	Subperiod (Subsystem)	mT	244.0	237.0
<i>Early Triassic</i>	Subperiod (Subsystem)	eT	253.0	244.0
Paleozoic	Era (Erathem)		542.0	253.0
Permian	Period (System)	P	300.0	253.0
<i>Late Permian</i>	Subperiod (Subsystem)	lP	258.0	253.0
<i>Middle Permian</i>	Subperiod (Subsystem)	mP	269.0	258.0
<i>Early Permian</i>	Subperiod (Subsystem)	eP	300.0	269.0
Carboniferous	Period (System)	C	360.0	300.0
Pennsylvanian	Subperiod (Subsystem)	P	313.0	300.0
Stephanian	Epoch (Series)		306.0	300.0
Westphalian	Epoch (Series)		312.0	306.0
Westphalian D	Age (Stage)		309.0	306.0
Westphalian C	Age (Stage)		311.0	309.0
Westphalian B	Age (Stage)		311.5	311.0
Westphalian A	Age (Stage)		312.0	311.5
Namurian	Epoch (Series)		327.0	312.0
Yeadonian	Age (Stage)		312.5	312.0
Marsdenian	Age (Stage)		313.0	312.5
Mississippian	Subperiod (Subsystem)	M	360.0	313.0
Kinderscoutian	Age (Stage)		313.2	313.0
Alportian	Age (Stage)		313.7	313.2
Chokerian	Age (Stage)		314.0	313.7
Namurian A	Age (Stage)		327.0	314.0
Arnsbergian	Age (Stage)		320.0	314.0
Pendleian	Age (Stage)		327.0	320.0
Visean	Epoch (Series)		342.0	327.0
Brigantian	Age (Stage)		329.0	327.0
<i>Windsor subzone E</i>	Chron (Zone)		327.5	327.0
<i>Windsor subzone D</i>	Chron (Zone)		328.0	327.5
<i>Windsor subzone C</i>	Chron (Zone)		329.0	328.0
<i>Windsor subzone B</i>	Chron (Zone)		334.0	329.0

Asbian	Age (Stage)		331.0	329.0
Holkerian	Age (Stage)		334.0	331.0
Arundian	Age (Stage)		338.0	334.0
<i>Windsor subzone A</i>	Chron (Zone)		336.0	334.0
Chadian	Age (Stage)		342.0	338.0
Tournaisian	Epoch (Series)		360.0	342.0
Devonian	Period (System)	D	418.0	360.0
<i>Late Devonian</i>	Subperiod (Subsystem)	ID	383.0	360.0
Famennian	Age (Stage)		373.0	360.0
Frasnian	Age (Stage)		383.0	373.0
<i>Middle Devonian</i>	Subperiod (Subsystem)	mD	394.0	383.0
Eifelian	Age (Stage)		394.0	387.0
<i>Early Devonian</i>	Subperiod (Subsystem)	eD	418.0	394.0
Dalejan	Age (Stage)		397.0	394.0
Emsian	Age (Stage)		409.0	397.0
Pragian	Age (Stage)		413.0	409.0
Lochkovian	Age (Stage)		418.0	413.0
Gedinnian	Subage (Substage)		418.0	413.0
Silurian	Period (System)	S	443.0	418.0
<i>Late Silurian</i>	Subperiod (Subsystem)	IS	424.0	418.0
Pridoli	Epoch (Series)		419.0	418.0
Ludlow	Epoch (Series)		424.0	419.0
<i>Early Silurian</i>	Subperiod (Subsystem)	eS	443.0	424.0
Wenlock	Epoch (Series)		431.0	424.0
Llandovery	Epoch (Series)		443.0	431.0
Telychian	Age (Stage)		436.0	431.0
Llandovery C6	Subage (Substage)		431.5	431.0
Llandovery C5	Subage (Substage)		432.0	431.5
Llandovery C4	Subage (Substage)		434.0	432.0
Aeronian	Age (Stage)		438.0	436.0
Llandovery C1-3	Subage (Substage)		436.2	436.0
<i>M. sedgwickii</i>	Chron (Zone)		436.2	436.0
Llandovery B3	Subage (Substage)		436.5	436.2
<i>M. convolutus</i>	Chron (Zone)		436.5	436.2
Llandovery B2	Subage (Substage)		437.0	436.5
<i>P. leptotheca</i>	Chron (Zone)		437.0	436.5
Llandovery B1	Subage (Substage)		438.0	437.0
<i>D. magnus</i>	Chron (Zone)		437.5	437.0
<i>M. triangulatus</i>	Chron (Zone)		438.0	437.5
Rhuddanian	Age (Stage)		443.0	438.0
Llandovery A4	Subage (Substage)		440.0	438.0
Llandovery A3	Subage (Substage)		441.0	440.0
Llandovery A2	Subage (Substage)		443.0	441.0
Ordovician	Period (System)	O	489.0	443.0
<i>Late Ordovician</i>	Subperiod (Subsystem)	IO	458.0	443.0
Cincinnatian	Epoch (Series)		450.0	443.0
Ashgill	Epoch (Series)		447.0	443.0
<i>D. anceps</i>	Chron (Zone)		445.0	444.0
<i>D. complanatus</i>	Chron (Zone)		446.0	445.0
<i>P. linearis</i>	Chron (Zone)		448.0	446.0
Caradoc	Epoch (Series)		458.0	447.0
Late Caradoc	Age (Stage)		454.0	447.0
<i>D. clingani</i>	Chron (Zone)		452.0	448.0
Mohawkian	Epoch (Series)		457.0	450.0
<i>D. multidentis</i>	Chron (Zone)		456.0	452.0
Early Caradoc	Age (Stage)		458.0	454.0
<i>A. tvaerensis</i>	Other division		457.0	454.0
<i>N. gracilis</i>	Chron (Zone)		458.0	456.0

<i>P. anserinus</i>	other division		461.0	457.0
Middle Ordovician	Subperiod (Subsystem)	mO	468.0	458.0
Darriwilian	Epoch (Series)		467.0	458.0
Llanvirn	Epoch (Series)		466.0	458.0
<i>G. teretiusculus</i>	Chron (Zone)		464.0	458.0
Late Llanvirn	Age (Stage)		463.0	458.0
<i>P. serra</i>	other division		466.0	461.0
Early Llanvirn	Age (Stage)		466.0	463.0
<i>D. murchisoni</i>	Chron (Zone)		465.0	464.0
<i>D. decoratus</i>	Chron (Zone)		465.0	464.5
<i>Anomalorthis</i>	other division		467.5	465.0
<i>G. dentatus</i>	Chron (Zone)		465.5	465.0
<i>C. mirus</i>	other division		465.2	465.0
<i>G. intersitus</i>	Chron (Zone)		465.2	465.0
<i>P. barrandei</i>	other division		465.5	465.2
<i>U. validum</i>	other division		466.0	465.5
<i>P. tentaculatus</i>	Chron (Zone)		466.0	465.5
<i>B. perplexus</i>	other division		467.0	466.0
Arenig	Epoch (Series)		478.0	467.0
Late Arenig	Age (Stage)		471.0	467.0
<i>U. austrodentatus</i>	Chron (Zone)		469.0	467.0
<i>Orthidiella</i>	other division		473.0	467.5
Early Ordovician	Subperiod (Subsystem)	eO	489.0	468.0
<i>I. v. maximus</i>	Chron (Zone)		470.0	469.0
<i>I. v. victoriae</i>	Chron (Zone)		471.0	470.0
Middle Arenig	Age (Stage)		474.0	471.0
<i>I. v. lunatus</i>	Chron (Zone)		473.0	471.0
<i>D. bifidus</i>	Chron (Zone)		474.0	473.0
<i>G. rarus</i>	other division		474.0	473.0
Early Arenig	Age (Stage)		478.0	474.0
<i>P. fruticosus</i>	Chron (Zone)		476.0	475.0
<i>B. gibberula</i>	other division		475.5	475.0
<i>S. caudata</i>	other division		476.5	475.5
<i>T. akrharensis</i>	Chron (Zone)		477.0	476.0
<i>S. brevicaudata</i>	other division		478.0	476.5
<i>T. approximatus</i>	Chron (Zone)		478.0	477.0
Tremadoc	Epoch (Series)		489.0	478.0
<i>P. knightii</i>	other division		480.0	478.0
<i>R. saundersi</i>	other division		481.0	480.0
<i>L. proprium</i>	other division		482.0	481.0
<i>H. oculilunatus</i>	other division		483.0	482.0
<i>Parahystricurus sp.</i>	other division		485.0	483.0
<i>H. ellipticus</i>	other division		487.0	485.0
<i>Symphysurina</i>	other division		489.0	487.0
Cambrian	Period (System)	C	542.0	489.0
Late Cambrian	Subperiod (Subsystem)	lC	501.0	489.0
<i>Mississquoia</i>	other division		490.0	489.0
<i>Peltura</i>	Chron (Zone)		492.0	490.0
<i>Plethopeltis</i>	other division		491.0	490.0
<i>Saukia</i>	other division		491.0	490.0
<i>Saratogia</i>	other division		493.0	491.0
<i>Leptoplastus</i>	Chron (Zone)		494.0	492.0
<i>Taenicephalus</i>	other division		494.0	493.0
<i>P. spinulosa</i>	Chron (Zone)		496.0	494.0
<i>C. convexus</i>	other division		496.0	494.0
<i>Olenus</i>	Chron (Zone)		498.0	496.0
<i>Dunderbergia</i>	other division		497.0	496.0
<i>D. strictus</i>	other division		498.0	497.0

<i>A. pisiformis</i>	Chron (Zone)		501.0	498.0
<i>C. rivus</i>	other division		501.0	498.0
Middle Cambrian	Subperiod (Subsystem)	mC	509.0	501.0
<i>L. laevigata</i>	Chron (Zone)		502.0	501.0
<i>W. newfoundlandensis</i>	other division		502.0	501.0
<i>P. forchhammeri</i>	Chron (Zone)		503.0	502.0
<i>E. dunbari</i>	other division		503.0	502.0
<i>P. davidis</i>	Chron (Zone)		504.0	503.0
<i>E. cloudensis</i>	other division		504.0	503.0
<i>H. hicksi</i>	Chron (Zone)		506.0	504.0
<i>O. longispinus</i>	other division		505.0	504.0
<i>Glossopleura sp.</i>	other division		506.0	505.0
<i>E. bennetti</i>	Chron (Zone)		508.0	506.0
<i>Polypleuraspis sp.</i>	other division		507.0	506.0
<i>G. walcotti</i>	other division		508.0	507.0
<i>E. insularis</i>	Chron (Zone)		509.0	508.0
<i>Proliostracus</i>	other division		508.5	508.0
<i>A. cleora</i>	other division		509.0	508.5
Early Cambrian	Subperiod (Subsystem)	eC	542.0	509.0
<i>P. howleyi</i>	Chron (Zone)		513.0	509.0
<i>Bonnia-Olenellus</i>	other division		513.0	509.0
Toyonian	Age (Stage)		512.0	510.0
Botomian	Age (Stage)		518.0	512.0
<i>C. broeggeri</i>	Chron (Zone)		520.0	517.0
Atdabanian	Age (Stage)		524.0	518.0
<i>Coleoloides</i>	Chron (Zone)		530.0	520.0
Tommotian	Age (Stage)		530.0	524.0
Nemakit-Daldynian	Age (Stage)		542.0	530.0
Proterozoic	Eon (Eonothem)		2500.0	542.0
Neoproterozoic	Era (Erathem)	N	1000.0	542.0
Ediacaran	Period (System)	E	575.0	542.0
Mesoproterozoic	Era (Erathem)	M	1600.0	1000.0
Late Mesoproterozoic	Period (System)	M3	1200.0	1000.0
Middle Mesoproterozoic	Period (System)	M2	1350.0	1200.0
Early Mesoproterozoic	Period (System)	M1	1600.0	1350.0
Paleoproterozoic	Era (Erathem)	P	2500.0	1600.0
Late Paleoproterozoic	Period (System)	P3	1800.0	1600.0
Middle Paleoproterozoic	Period (System)	P2	2100.0	1800.0
Early Paleoproterozoic	Period (System)	P1	2500.0	2100.0
Archean	Eon (Eonothem)	A	4600.0	2500.0
Neoproterozoic	Era (Erathem)	AN	2800.0	2500.0
Mesoarchean	Era (Erathem)	AM	3200.0	2800.0
Paleoarchean	Era (Erathem)	AP	3600.0	3200.0
Eoarchean	Era (Erathem)	AE	4600.0	3600.0