

Geologic Time Scale			
Boundaries – Million Years Ago			
Era	Period	Major Geologic Events	Millions of Years Ago
Cenozoic	Quaternary	Modern humans	2.6
	Tertiary	Abundant mammals	
Mesozoic	Cretaceous	Flowering plants; dinosaur and ammonoid extinctions	65
	Jurassic	First birds and mammals; abundant dinosaurs	145
	Triassic	Abundant coniferous trees	200
	Permian	Extinction of trilobites and other marine animals	250
Paleozoic	Pennsylvanian	Fern forests; abundant insects; first reptiles	300
	Mississippian	Sharks; large primitive trees	~320
	Devonian	Amphibians and ammonoids	360
	Silurian	Early plants and animals on land	415
	Ordovician	Abundant fish	445
	Cambrian	First Fish; trilobites dominant	490
	Proterozoic	Primitive aquatic plants	545
Precambrian	Archean	Oldest fossils; bacteria and algae	2500
			4000+

			Main types	Top layer in	
Cenozoic	Tertiary	Abundant mammals		<i>Absent in Iowa</i>	
	Mesozoic	Cretaceous	Flowering plants; dinosaur and ammonoid extinctions	shale; sandstone	NW 1/3 of Iowa
		Jurassic	First birds and mammals; abundant dinosaurs	gypsum; mudstone	Part of Webster Co.
Triassic		Abundant coniferous trees		<i>These layers are missing in Iowa (eroded away)</i>	
Paleozoic	Permian	Extinction of trilobites and other marine animals			
	Pennsylvanian	Fern forests; abundant insects; first reptiles	shale; limestone	Southern and central Iowa	
	Mississippian	Sharks; large primitive trees	dolomite; limestone		
	Devonian	Amphibians and ammonoids	dolomite; limestone; shale	NE 1/3 of Iowa	
	Silurian	Early plants and animals on land	dolomite; limestone; chert		
	Ordovician	Abundant fish	dolomite; sandstone; shale		
	Cambrian	First Fish; trilobites dominant	sandstone		