

Geologic History of New York

Ma	Tectonic Setting	Tectonic Events	Effect on the Geology of New York
Holocene - Cretaceous		Opening of the modern Atlantic Ocean, formation of a passive margin with deposition of cratonic clastics and carbonates.	Glacial sculpting of the modern landscape. Uplift of the Adirondack Dome and Allegheny Plateau . Deposition of Coastal Plain strata.
146			
Jurassic - Triassic		Rifting of Africa from N.A. Faulting and formation of Triassic basins with Jurassic basalt intrusions.	Formation and filling of Triassic basins , emplacement of Palisades Sill.
245			
Permian		No geologic record exists for the Permian in New York	
290			
Pennsylvanian		Alleghanian Orogeny , oblique collision of N.A. and Gondwanaland, proto-Atlantic completely closes.	Deformation of Appalachian fold belt and strata to the east.
323			
Mississippian		Southern proto-Atlantic continues to close.	Erosion of the Acadian mountains produces the clastic strata of the Allegheny Plateau .
360			
Devonian		Acadian Orogeny , probably oblique collision of N.A. with Europe and West Africa. Northern proto-Atlantic closes.	Deposition of carbonates seen along the Catskill and Helderberg escarpments .
408			
Silurian		Proto-Atlantic continues to close.	Deposition of carbonates and evaporite deposits of Ontario Lowlands and clastics of the Appalachian fold belt .
439			
Ordovician		490 - 440 Ma Taconic Orogeny Collision of N.A. with volcanic island arc.	Deposition and metamorphism of Taconic Klippe and Manhattan Prong rocks. Deposition of Walkkill Valley and Hudson-Mohawk clastics.
510			
Cambrian		570 - 490 Ma Opening of the proto-Atlantic Ocean and passive margin formation.	Deposition of thick carbonate deposits following sand in strata of Hudson-Mohawk , St. Lawrence , and Ontario Lowlands , and Tug Hill Plateau .
540			
Proterozoic (Precambrian)		690 - 570 Ma Rifting and faulting of Precambrian rock.	
		1.1-1.0 Ga Grenville Orogeny , collision of eastern N.A. with Amazonia.	Metamorphism of Adirondack rocks and rocks of the Hudson Highlands .

Key

