

Era	Period	Epoch	Millions of years ago (mya)	Event
Cenozoic	Quaternary	Holocene		<ul style="list-style-type: none"> Present-day rivers rework glacial materials to form the modern river valley deposits and riparian areas. Landslides occur along valley margins.
			10,000 yrs.	
		Pleistocene		<ul style="list-style-type: none"> Deglaciation—human occupation of North America. Meltwater rivers deposit outwash sheets of sand and gravel. Winds form sand dunes. Glacial Lake Missoula forms in Clark Fork and Flathead drainages. Alternate advance and retreat of glaciers. Glaciers cover mountainous areas, carve alpine glacial features, and flow into major valleys. Ice deposits unsorted rock material (glacial till) as moraines and drumlins.
			2 mya	
		Tertiary		<ul style="list-style-type: none"> Crust pulled apart, crustal blocks dropped to form major valleys. Deposition of sediments into down dropping valleys—Kishenehn Formation (Flathead North, Middle, and South Forks—modern fish fossils). “Sliding” (overthrusting) of 5-10 mile thick slabs of rock up to 50-60 miles from west to east to emplace surface rocks of present northwest Montana and adjacent B.C. and Alberta. Extinction of dinosaurs and much marine and terrestrial life.
			65 mya	
Mesozoic				<ul style="list-style-type: none"> Uplift of broad region of western Montana, British Columbia, and Alberta. Folding, faulting, mountain building and volcanic activity. Inland sea (Cretaceous Seaway) extends north-south from Gulf of Mexico. Deposition of sandstone, shale, and coal found east of the Rocky Mountains. Abundant marine life-forms—dinosaurs dominant. Breakup of Pangea—Westward drift of North America. Mountain building activity (orogenesis) begins along ancient western margin of North America from Alaska to Mexico. Accretion of “exotic terrains” along western edge (Washington, Oregon, Nevada, California).
			225 mya	
Paleozoic				<ul style="list-style-type: none"> North America/Europe/Africa/South America come together to form supercontinent Pangea. Formation of Appalachian Mountains as suture zone. Major biological extinctions. Western U.S. quiet—deposition of limestone along continental margin (Whitefish Range and north). Plant and animal life colonize land surface. Major expansion of aquatic life forms—“Cambrian Explosion”.
			600 mya	
Pre-cambrian		Proterozoic		<ul style="list-style-type: none"> Breakup of ancient continent—Belt/Purcell rocks begin traveling to present locations in U.S./Siberia/Australia. Deposition of sediments forming Belt/Purcell rocks.
			1500 mya	
		Archean		<ul style="list-style-type: none"> Oldest evidence of life found in rocks—single-celled organisms (predecessors of algal stromatolites). Oldest known rocks on earth (core areas of present continents). Earth and other planets formed as solar system.
			4600 mya	