

## GLOBAL WARMING VS CLIMATE CHANGE

Earth is over 4.5 billion-years-old, and has naturally experienced changes in its climate. These naturally occurring warming and cooling changes in Earth's climate are called interglacials and ice ages. Interglacials and ice ages are periods, in reference to geologic time (keep reading for Geologic Time Scale).

Simply put, Climate Change happens whether humans are inhabiting the planet or not.



NATURALLY OCCURRING CHANGES IN OUR PLANET'S CLIMATE CAN BE STUDIED USING GEOLOGICAL RECORDS. NATURAL FACTORS, INCLUDE: CHANGES IN THE SUN, EMISSIONS FROM VOLCANOES, VARIATIONS IN EARTH'S ORBIT AND LEVELS OF CARBON DIOXIDE (CO<sub>2</sub>).

# GEOLOGIC TIME SCALE

younger ← → older

ERA	PERIOD	EPOCH	Ma	
Cenozoic	Quaternary	Holocene	0.01	
		Pleistocene	2.6	
	Tertiary	Neogene	Pliocene	5.3
			Miocene	23.0
			Oligocene	33.9
	Tertiary	Paleogene	Eocene	56.0
			Paleocene	66.0

ERA	PERIOD	Ma
Mesozoic	Cretaceous	66.0
	Jurassic	145
	Triassic	201
		252

ERA	PERIOD	Ma	
Paleozoic	Permian	252	
	Carboniferous	Pennsylvanian	299
		Mississippian	323
			359
	Devonian	419	
	Silurian	444	
	Ordovician	485	
	Cambrian		

ERA	PERIOD	Ma
Precambrian	Proterozoic	541
		2500
	Precambrian	Archean
Hadean		



The term Global Warming; however, is specifically attributed to warming caused or influenced by human behaviors and activities. Human-caused or human-influenced warming is referred to as Anthropogenic Warming.

USGS explains, "Global Warming is the rise in global temperatures due mainly to the increasing concentrations of greenhouse gases in the atmosphere." Since the increase in greenhouse gases are mainly attributed to human behavior, we are responsible for Global Warming within The Holocene Epoch the geological epoch we are currently in.

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