

	Eon	Era	Period	Epoch	
<div> <div>Younger</div> <div>Older</div> </div>	Phanerozoic	Cenozoic	Quaternary	Holocene	← Today
				Pleistocene	← 11.8 Ka
			Neogene	Pliocene	
				Miocene	
				Oligocene	
		Paleogene		Eocene	
				Paleocene	← 66 Ma
		Mesozoic	Cretaceous	~	
			Jurassic	~	
			Triassic	~	
		Paleozoic	Permian	~	← 252 Ma
			Carboniferous	Pennsylvanian	~
				Mississippian	~
			Devonian	~	
			Silurian	~	
			Ordovician	~	
			Cambrian	~	
	Proterozoic	~	~	~	← 541 Ma
	Archean	~	~	~	← 2.5 Ga
	Hadean	~	~	~	← 4.0 Ga
					← 4.54 Ga

mya = Million years Ago

EONS

HADEAN EON

- Indicates the **time before a reliable (fossil) evidence of life**.
- Extremely hot temperature.
 - Much of the Earth was molten (**extreme volcanism**) leading to formation of crust after cooling.
- Volcanic outgassing** probably created the primordial atmosphere (No oxygen) and then the ocean.
- Heavy CO₂ atmosphere with water vapor and hydrogen.

ARCHEAN EON

- Beginning of life** on Earth (Evidence of **cyanobacteria** date to 3500 mya).
- Life was limited to **Prokaryota** (simple single-celled organisms lacking nuclei).

- No oxygen** in atmosphere.
- Formation of continents** due to the cooling of Earth's crust.
- Higher volcanic activity** than today with multiple lava eruptions.

PROTEROZOIC EON

- Last eon of the Precambrian "supereon".
- Oxygen production** started by Bacteria leading to the sudden rise of life forms.
- Eukaryotes** (have a nucleus) emerged.
- The early and late phases of this eon may have undergone **Snowball Earth** periods (the planet gone through **extensive glaciation** resulting **drop in sea levels**).
- Very **tectonically active** period.

PHANEROZOIC EON

- Complex multicellular** life arose.