The Geological Time Scale

Eon	Era	Period	Epoch
Phanerozoic 542 ma – now	Cenozoic 65.5 ma – now	Quaternary 2.6 ma – now	Holocene 11.7 ka – now Human history
			Pleistocene 2.6 ma – 11.7 ka Humans arise
		Neogene 23.0 ma – 2.6 ma	Pliocene 5.3 ma – 2.6 ma *Homo* spp. arise
			Miocene 23.0 ma – 5.3 ma
		Paleogene 65.5 ma – 23.0 ma	Oligocene 33.9 ma – 23.0 ma Primates arise
			Eocene 55.8 ma – 33.9 ma Angiosperms dominant
			Paleocene 65.5 ma – 55.8 ma Mammals dominant
	Mesozoic 251 ma – 65.5 ma	Cretaceous 146 ma – 65.5 ma Angiosperms arise	
		Jurassic 200 ma – 146 ma	
		Triassic 251 ma – 200 ma Gymnosperms dominant Dinosaurs arise	
	Paleozoic 542 ma – 251 ma	Permian 299 ma – 251 ma	
		Carboniferous 359 ma – 299 ma Seed plants Reptiles arise	
		Devonian 416 ma – 359 ma Tetrapods and insects	

Alex Tseng

		Silurian 444 ma – 416 ma Vascular plants arise	
		Ordovician 488 ma – 444 ma Colonization of land	
		Cambrian 542 ma – 488 ma Explosion of diversity	
Proterozoic 2.5 ga – 542 ma First eukaryotes First invertebrates			
Archaean 4.0 ga – 2.5 ga First prokaryotes Oxygen levels increase			
Hadean 4.6 ga – 4.0 ga			

Notes:

Together, the Hadean, Archaean, and Proterozoic can be referred to as the Precambrian

Epochs are further divided into ages.

The impact of humans has indelibly changed the rock record, so many scientists consider the Holocene over, and that Earth is in a new epoch: the Anthropocene (~2 ka – now)

A mnemonic for the periods: Can Oliver See Down Cargo Pants? Tom Jones Can; Peeking's Not Queer.

By convention, every subdivision of time in the Geological Time Scale is given a particular color, shown here.

Mass extinctions occurred at the end of the following periods:

- Ordovician
- Devonian
- Permian (the largest extinction in Earth's history)
- Triassic
- Cretaceous (the mass extinction of dinosaurs)