

Geological Time Scale (GTS)

Geologists have divided Earth history into units displayed in the **geologic time scale** (below). The units are called *eons*, *eras*, *periods*, and *epochs* and are identified primarily by the types of life that existed at the various times.

The most recent 13% of geologic time, from 538 million years ago to the present, is called the **Phanerozoic Eon** (phaneros is Greek for “evident”).

The Phanerozoic Eon is subdivided into the:



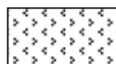
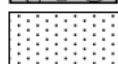


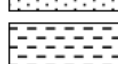
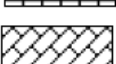


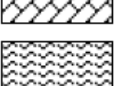

Paleozoic Era = ancient life

Mesozoic Era = middle life

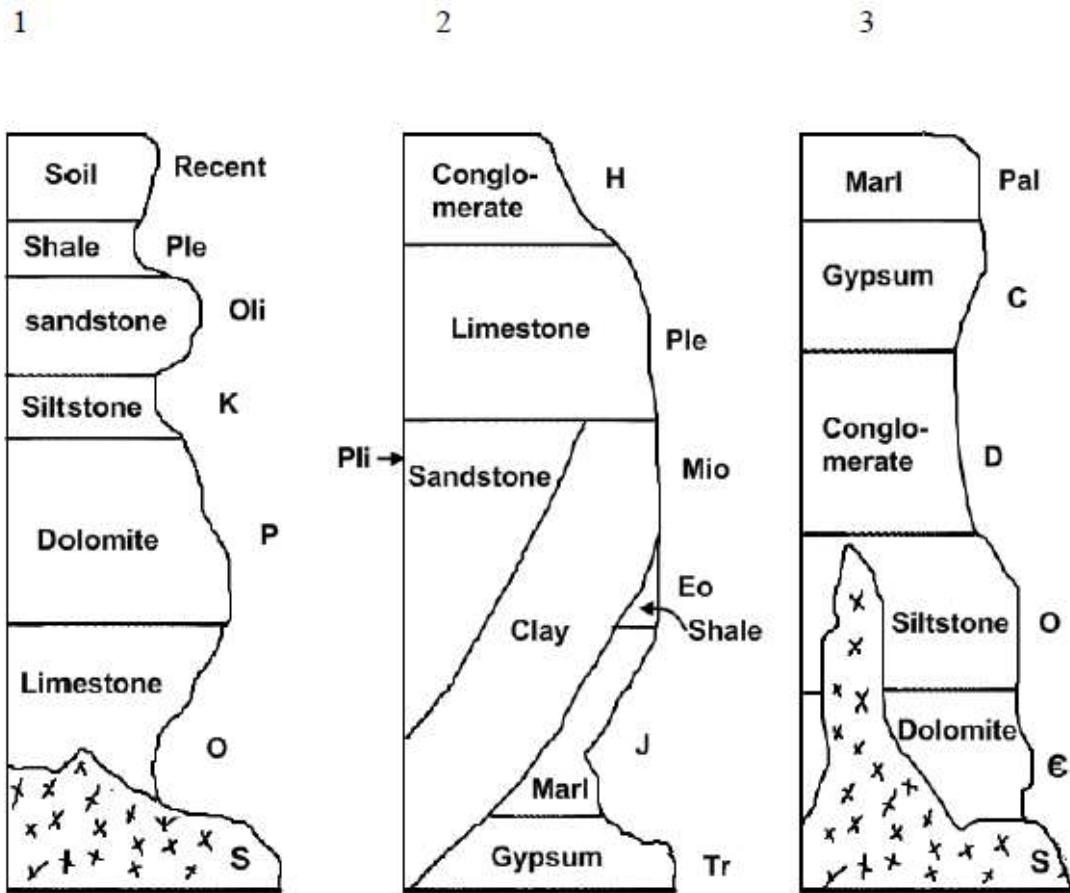
Cenozoic Era = recent life

Eon	Era	Period	Epoch	Map Symbol	
Phanerozoic Eon (Phaneros “evident”; Zoon “life”)	Cenozoic	Quaternary		H Ple	
		Tertiary	Neogene	Pliocene Miocene Pli Mio	
			Paleogene	Oligocene Eocene Paleocene Oli Eo Pal	
		Mesozoic	Cretaceous Jurassic Triassic	K J Tr	
	Paleozoic	Permian Carboniferous Devonian Silurian Ordovician Cambrian	P C D S O €		
	Proterozoic = Precambrian		Oldest rocks		P€
	66 my				
	245 my				
	538 my				

Following are the common lithologic symbols can be used in the description of GTS:

	Conglomerate		Clay (mudstone)		Gypsum or Anhydrite
	Sandstone		Limestone		Igneous rocks
	Shale		Dolomite		Metamorphic rock
	Siltstone		Marl		Soil

Exercise: Construct the complete geological column from the combination of the below sections 1-3 according to the Geological age (GTS) and lithology for the beds. Make the oldest bed at the bottom and youngest at the top of column as described by the blank geological column.



Age				Lithologic symbol	Bed name
EON	ERA	PERIOD	EPOCH		

