

Section 3-2

The Fossil Record



The History of Life

Draw a line that has as many inches as you have years.

Mark the years at every inch.

For each year, record at least one major event that occurred, such as starting grade school or learning how to ride a bike.

Give a title to the time line you just made.

Does Earth have a time line?





1. Two dinosaurs are buried by ash from an erupting volcano.





2. Minerals gradually replace the remains. Over millions of years, the fossils become buried by sediments.

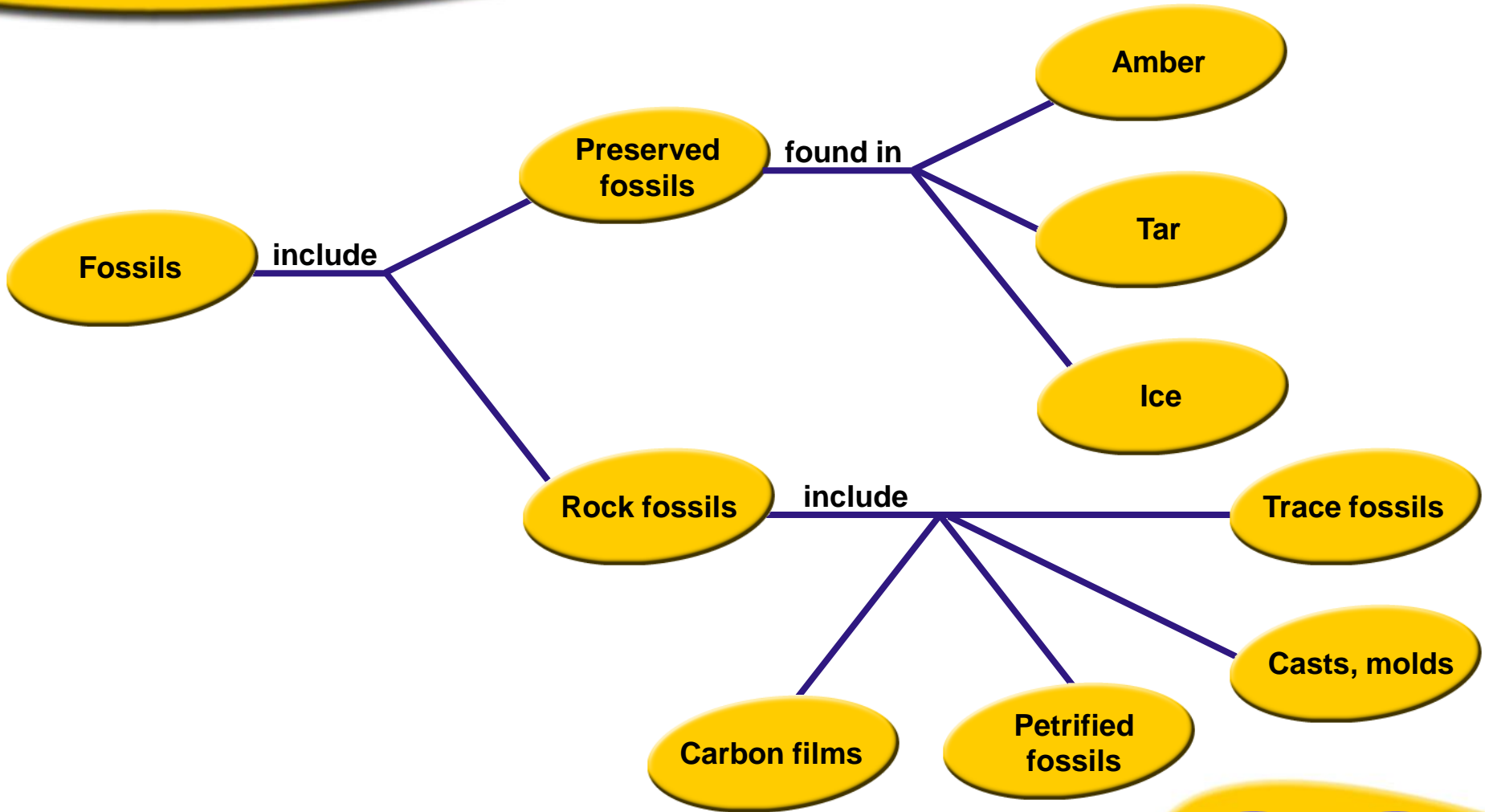




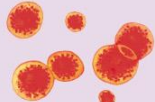















3. Running water cuts through the sedimentary rock layers, exposing the fossils.



The History of Life


















The History of Life

PRE-CAMBRIAN	PALEOZOIC ERA				
	544	505	438	408	360
 Early bacteria	Cambrian Period  Opabinia	Ordovician Period  Eumorphocystis	Silurian Period  Eurypterid	Devonian Period  Shark	Carboniferous Period  Tropical forest
 Algae	 Sponges	 Jawless fish	 Arachnid	 Eryops	 Cockroach
 Jellyfish-like animal	 Trilobite	 Land plants	 Pterichthyodes		

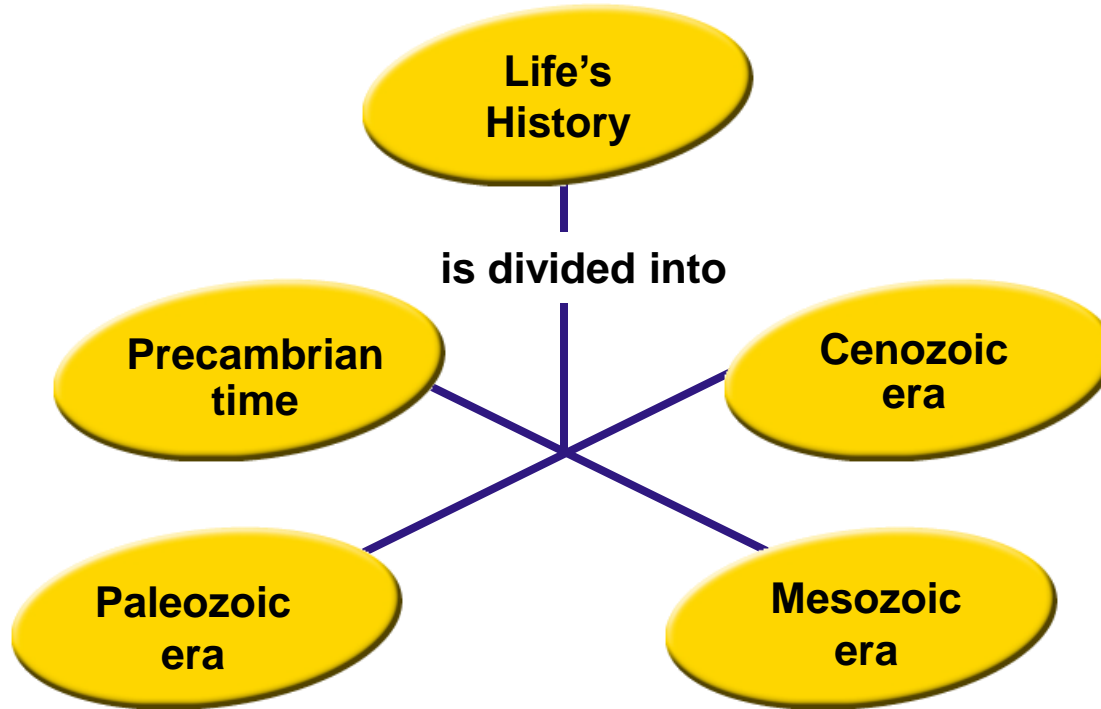


The History of Life

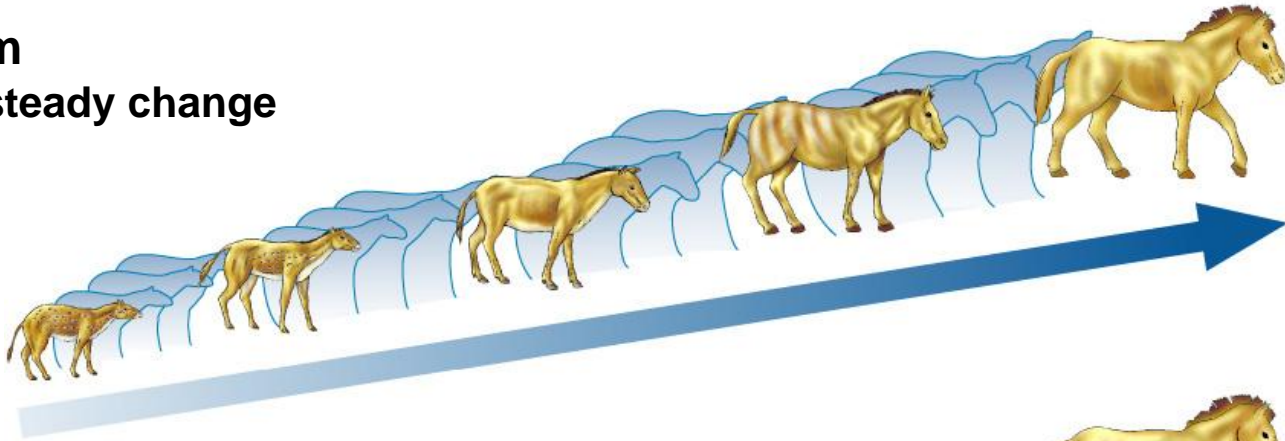
END OF PALEOZOIC ERA	Millions of years ago	MESOZOIC ERA			CENOZOIC ERA	
	286	245	208	144	66.4	1.6
	Permian Period	Triassic Period	Jurassic Period	Cretaceous Period	Tertiary Period	Quaternary Period
	 Staurikosaurus	 Haramiya	 Magnolia	 Saber-toothed cat		
	 Conifer	 Megazostrodon	 Stegosaurus	 Coryphodon	 Woolly mammoth	
	 Dicynodon	 Cycad	 Archaeopteryx	 Triceratops	 Meshippus	 Homo sapiens



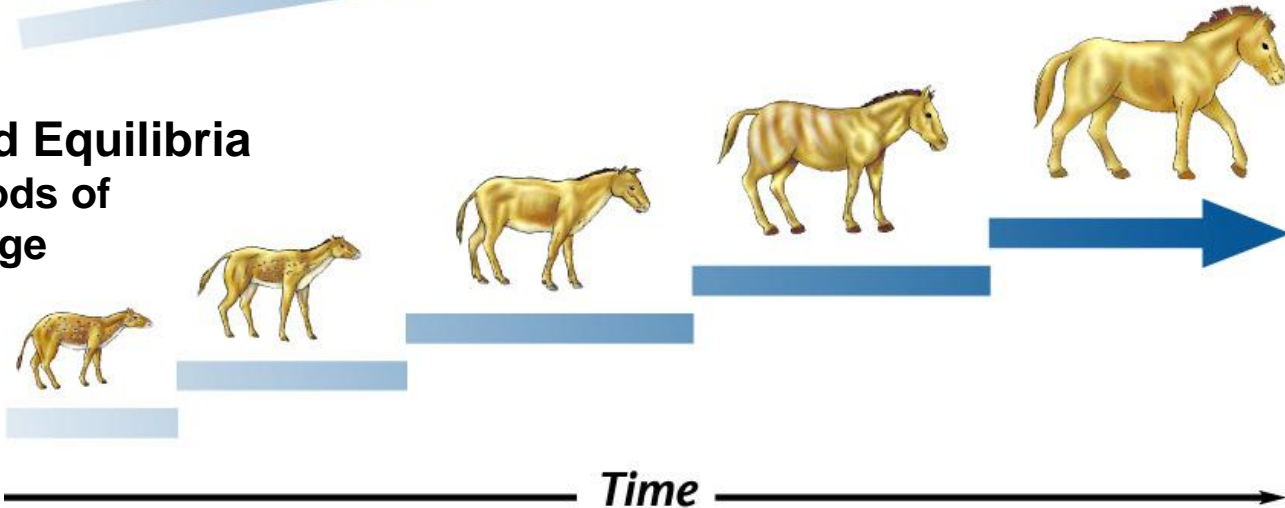
The History of Life



Gradualism
Slow and steady change



Punctuated Equilibria
Short periods of rapid change



Process of Evolution

