

## Biology Chapter 12: History of Life on Earth

### Chapter Objectives:

- How did life begin  
The age of Earth  
Formation of the basic chemical of life  
Precursors of the first cells
- The evolution of cellular life  
The evolution of prokaryotes  
The evolution of eukaryotes  
Multicellularity  
Mass extinctions
- Life invaded the land  
The ozone layer  
Plants and fungi on land  
Arthropods  
Vertebrates

Vocabulary		At the end of this unit, you should be able to:
1. Radiometric dating	19. Invertebrate	<ul style="list-style-type: none"> <li>• Summarize how radioisotopes can be used in determining Earth's age</li> <li>• Compare two models that describe how the chemicals of life originated</li> <li>• Describe how cellular organization might have begun</li> <li>• Recognize the importance that a mechanism for heredity has to the development of life</li> <li>• Distinguish between the two groups of prokaryotes</li> <li>• Describe the evolution of eukaryotes</li> <li>• Recognize an evolutionary advance first seen in protists</li> <li>• Summarize how mass extinctions have affected the evolution of life on Earth</li> <li>• Relate the development of ozone to the adaptation of life to the land</li> <li>• Identify the first Multicellular organisms to live on land</li> <li>• Name the first animals to live on land</li> <li>• Explain the relationship between plants and fossil fuels</li> <li>• List the first vertebrates to leave the oceans</li> </ul>
2. Radioisotope	20. Continental drift	
3. Half-life	21. DNA	
4. Microsphere	22. RNA	
5. Fossil	23. Proteins	
6. Cynobacteria	24. Primordial soup model	
7. Eubacteria	25. Bubble model	
8. Archaeobacteria	26. Miller-Urey model	
9. Endosymbiosis		
10. Protest		
11. Extinction		
12. Mass extinction		
13. Mitochondria		
14. Chloroplasts		
15. Mycorrhizae		
16. Mutualism		
17. Arthropod		
18. Vertebrate		

*only these*