

**Chapter 17 The History of Life****Section Review 17-2****Reviewing Key Concepts**

**Completion** *On the lines provided, complete the following sentences.*

1. Humans of today would not be able to survive in Earth's early atmosphere because it contained little or no \_\_\_\_\_.
2. About 4 billion years ago, Earth cooled enough to allow \_\_\_\_\_ to form.
3. About 3.8 billion years ago, Earth cooled enough for \_\_\_\_\_ to remain a liquid.

**Short Answer** *On the lines provided, answer the following questions.*

4. What did the experiments of Urey and Miller show about the organic compounds necessary for life?  
\_\_\_\_\_
5. How were life forms affected by the rise in atmospheric oxygen levels that began about 2.2 billion years ago?  
\_\_\_\_\_  
\_\_\_\_\_
6. Explain the endosymbiotic theory.  
\_\_\_\_\_  
\_\_\_\_\_

**Reviewing Key Skills**

7. **Inferring** What did the sparks in Miller and Urey's experiments simulate?  
\_\_\_\_\_  
\_\_\_\_\_
8. **Applying Concepts** Why do the abilities of some RNA molecules to grow and duplicate themselves suggest that RNA existed before DNA?  
\_\_\_\_\_  
\_\_\_\_\_
9. **Inferring** What evidence has been found to support the idea that life existed at least 3.5 billion years ago?  
\_\_\_\_\_  
\_\_\_\_\_
10. **Applying Concepts** What evidence has led scientists to infer that eukaryotic cells arose from living communities formed by several organisms?  
\_\_\_\_\_  
\_\_\_\_\_