



Name _____

Period _____

Date _____

SECTION
18.4 | BACTERIA AND ARCHAEA
Study Guide

KEY CONCEPT

Bacteria and archaea are both single-celled prokaryotes.

VOCABULARY

obligate anaerobe	plasmid	endospore
obligate aerobe	flagellum	
facultative aerobe	conjugation	

MAIN IDEA: Prokaryotes are widespread on Earth.

1. What two groups of organisms include all prokaryotes on Earth?

2. Some prokaryotes don't need oxygen to live. Where are three environments where methane-producing archaea have been found?

MAIN IDEA: Bacteria and archaea are structurally similar but have different molecular characteristics.

In the top left of the Y shape, write the characteristics of bacteria. In the top right, write the characteristics of archaea. At the bottom, write the characteristics bacteria and archaea have in common. Then lightly cross out those characteristics at the top of the Y.

<p>Bacteria</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Archaea</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>Both</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	

Copyright © McDougal Littell/Houghton Mifflin Company.

CHAPTER 18
Viruses and Prokaryotes

STUDY GUIDE, CONTINUED

MAIN IDEA: Bacteria have various strategies for survival.

3. What is binary fission?

4. Describe one way that prokaryotes exchange genetic material.

5. How do some bacteria survive unfavorable conditions?

6. How is an endospore formed?

Vocabulary Check

obligate anaerobe

facultative aerobe

flagellum

endospore

obligate aerobe

plasmid

conjugation

- _____ 7. Can survive whether oxygen is present or not
- _____ 8. Long whiplike structure used for movement
- _____ 9. Needs oxygen to survive
- _____ 10. Specialized prokaryotic cell that can withstand harsh conditions
- _____ 11. Prokaryotic method of gene exchange
- _____ 12. Cannot live in the presence of oxygen
- _____ 13. Separate circular piece of a prokaryote's genetic material