

# Microbiology for Health Sciences

## Chapter 3 Study Aid

Name: \_\_\_\_\_

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PRINT AND HANDWRITE YOUR ANSWERS!

1. What are the characteristics of prokaryotes?

2. What are the characteristics of eukaryotes?

3. External features of bacteria:

a. What are glycocalyxes?

b. What are flagella used for?

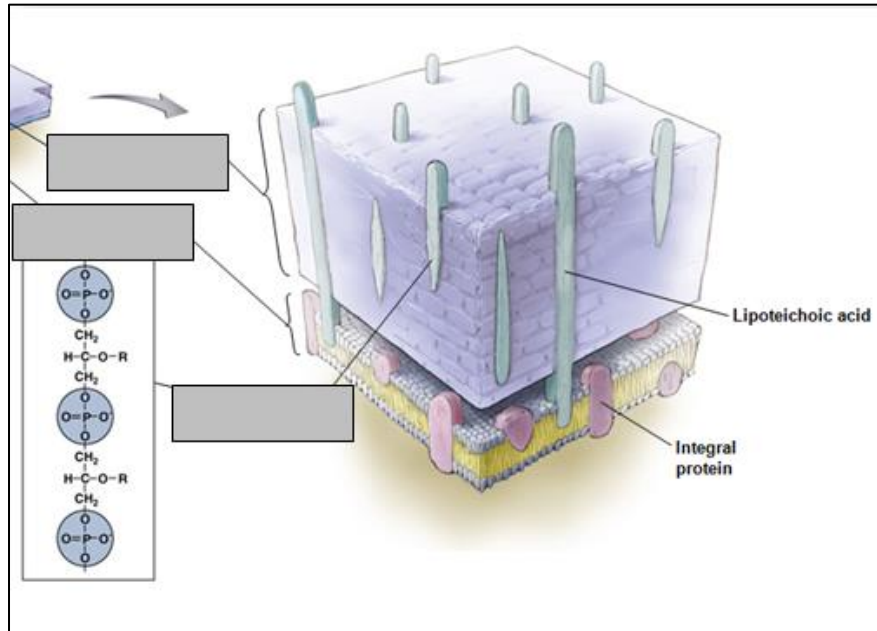
c. What is an axial filament in spirochetes?

d. What are frimbriae?

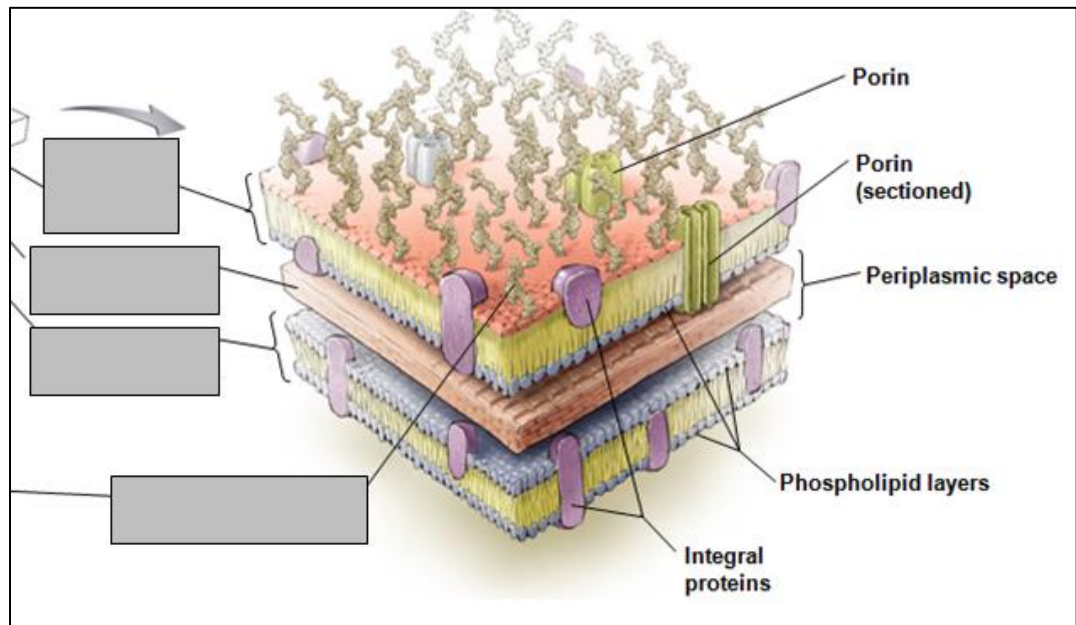
e. What are pili?

- f. What polysaccharide makes up bacterial cell walls? \_\_\_\_\_ This polysaccharide is made up of 2 different sugar molecules: \_\_\_\_\_ and \_\_\_\_\_.
- g. What is the difference between Gram positive and Gram negative bacteria?

h. Is this a Gram + or Gram - bacteria cell? Label:



i. Is this a Gram + or Gram - bacteria cell? Label:



j. What is passive transport across the cell membrane?

k. What is active transport across the cell membrane?

l. Draw a cell in a hypertonic solution.

m. Draw a cell in a hypotonic solution.

n. What is the cytosol?

o. What are inclusions?

p. What are endospores?

- q. What are ribosomes?
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- 4. How do Archaea differ from Bacteria?
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- 5. Feature of Eukaryotes:
    - a. What eukaryotes have cell walls?
  
  
  
  
  
  
  
  
  
  
    - b. Are eukaryotic flagella different from bacterial flagella?
  
  
  
  
  
  
  
  
  
  
    - c. What membraneous organelles do eukaryotes have? Describe the function of each with a sentence.