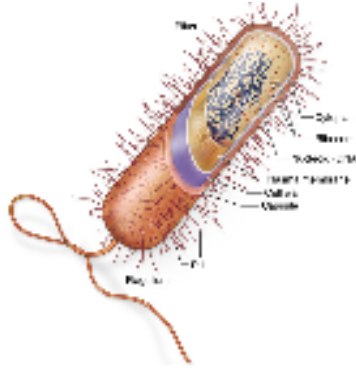


Chapter 28 – Prokaryotes



1. List and describe the three basic structural forms of prokaryotic cells.

- a. _____
- b. _____
- c. _____

2. List and describe the essential differences between **prokaryotes** and **eukaryotes**.

- a. _____

- b. _____

- c. _____

- d. _____

- e. _____

- f. _____

- g. _____

3. Why was the old prokaryotic Kingdom “Monera” divided into the two new domains, “Bacteria” and “Archaeobacteria”

- _____
- _____

4. List and describe the four key differences between **Bacteria** and **Archaeobacteria**.

- a. _____

- b. _____

- c. _____

- d. _____

5. Describe the difference in the cell wall structure of gram-positive and gram-negative bacteria.

- a. **Gram positive** _____

- b. **Gram negative** _____

6. What is the medical significance of gram negative bacteria?

7. Briefly describe these structures found in the interior prokaryotic cell:

- a. **Internal membranes** _____
- b. **Nucleoid** _____
- c. **Endospores** _____
- d. **Ribosomes** _____

8. Explain three processes that create variation in prokaryotes:

- a. _____

- b. _____

- c. _____

9. Considering what you learned in our unit on evolution, why is the prevalent use of antibacterial soap a health concern?

10. Describe the three main metabolic groups of prokaryotes:

a. **Photoautotrophs** _____

b. **Chemolithoautotrophs** _____

c. **Photoheterotrophs** _____

d. **Chemoheterotrophs** _____

11. Describe the following human diseases caused by pathogenic bacteria.

a. **Tuberculosis** _____

b. **Dental caries** _____

c. **Peptic ulcers** _____

d. **Gonorrhea** _____

e. **Chlamydia** _____

f. **Syphilis** _____

12. Identify and explain three ecologically essential roles that bacteria play on Earth.

a. _____

b. _____

c. _____

13. List and describe three symbiotic associations prokaryotes live in with eukaryotes.

a. _____

b. _____

c. _____

14. Discuss two commercial uses of bacteria? _____

