

Name _____

Period _____

AP Biology

Date _____

RAVEN CHAPTER 27 GUIDED NOTES: PROKARYOTES

1. How common are prokaryotes on earth?

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

a. _____

b. _____

c. _____

3. List and describe the essential differences between prokaryotes and eukaryotes.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

g. _____

4. Why was the old prokaryotic Kingdom "Monera" divided into the two new domains, "Bacteria" and "Archaeobacteria"

5. List and describe the four key differences between Bacteria and Archaeobacteria.

a. _____

b. _____

c. _____

d. _____

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

a. Gram positive _____

b. Gram negative _____

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

8. Briefly describe these structures found in the interior prokaryotic cell

a. internal membranes _____

b. nucleoid _____

c. plasmids _____

d. ribosomes _____

9. Explain two processes that create variation in prokaryotes.

a. _____

b. _____

10. Considering what you learned in our unit on evolution, why is the prevalent use of anti-bacterial soap a health concern?

11. Describe the three main metabolic groups of prokaryotes.

a. photoautotrophs _____

b. chemoautotrophs _____

c. heterotrophs _____

12. Describe three diseases of humans that are caused by pathogenic bacteria.

a. _____

b. _____

c. _____

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

a. _____

b. _____

c. _____

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

a. _____

b. _____

c. _____

15. What are some of the commercial uses of bacteria? _____
