**Chapter 13 Study Guide Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. List the 3 domains of life. Which kingdoms are contained within each domain?
2. What is the difference between the terms prokaryote and eukaryote?
3. How old is the earth? How do we know this?
4. What were conditions like for the first organisms on earth?
5. Give examples of locations where extremophiles might be found.
6. List the 4 structures found in all cells.
7. What are the 3 shapes of prokaryotes?
8. What is the difference between the function of the cell membrane and the cell wall?
9. What is the difference between Gram positive and Gram negative bacterial cell walls?
10. What caused the black plague? How is it spread?
11. List two causes for the antibiotic crisis we are currently experiencing.
12. List a beneficial use of prokaryotes in

a. food production

b. bioremediation

c. our bodies

1. What is the endosymbiotic theory? What is its significance?
2. What 2 organelles are listed that contributed to the origin of the eukaryotic cell?
3. Most (or all) protists are (choose one for each):
4. prokaryotes/eukaryotes
5. unicellular/multicellular
6. aquatic/terrestrial
7. non-motile/motile
8. Under what conditions would an asexual organism switch to sexual reproduction?
9. The emerging classification system for Domain Eukarya groups organisms into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, containing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. What organism causes malaria? How is it transmitted?
11. What organism causes sleeping sicknesses? How is it transmitted?
12. List 3 beneficial uses of protists.
13. DNA has shown that the closest kingdom to fungi is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
14. Fungi are (choose one for each):
15. prokaryotes/eukaryotes
16. photosynthetic/decomposers
17. non-motile/motile
18. The main way that fungi reproduce is through the production of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Are these produced sexually, asexually or both?
19. How do fungi digest their food?
20. List 2 examples of fungi that are harmful to plants.
21. List 2 ways that fungi are harmful to humans.
22. In mycorrhizae, what does the plant provide to the fungus? What does the fungus provide to the plant?
23. In lichens, what does the algae or cyanobacteria provide to the fungus? What does the fungus provide to the algae or cyanobacteria?
24. List two ways in which fungi are beneficial to humans.
25. Be familiar with the vocabulary in the chapter. You can use the last slide in the PPT as a guide.