

## Cell Structures

Name \_\_\_\_\_ Per. \_\_\_\_\_

Read Chapter 7.3, pages 191 - 200 and answer the following questions. Be complete, be thorough, be specific.

1. Check out the main idea of this section. What two things do organelles allow for?

### *Cytoplasm and Cytoskeleton* (pg. 191)

2. Where is the cytoplasm located?
3. What is the difference between cytoplasm of a prokaryote cell and a eukaryote cell?
4. Describe the Cytoskeleton.
5. What is the major function of the Cytoskeleton?
6. Compare and contrast microfilaments and microtubules.
7. Study the cells shown on page 192. Which organelles are only in plants, which are only in animals?

### *Nucleus and Ribosomes* (pg. 193, including Figure 7.10))

8. What do membrane bound organelles make possible?
9. List five essential cell processes carried out by organelles.
10. Which organelle is like a factory manager, directing processes?
11. What two things are inside the nucleus (be careful).
12. Describe the nuclear envelope and what its function is.
13. What is the job of ribosomes?
14. What produces ribosomes?
15. In what two places are ribosomes found?

***Endoplasmic Reticulum*** (pg. 194)

16. Name three specific things synthesized by the ER.
17. Describe the ER, including its characteristics, what studs it, and its two parts.

***Golgi Apparatus*** (pg.195)

18. Describe what the Golgi looks like or resembles.
19. What are three things done by the Golgi? How might the Golgi apparatus be like a butcher shop?

***Vacuole***

20. What is a vacuole?
21. What are three specific things stored by vacuoles?

***Lysosomes*** (pg. 196)

22. What is the function of lysosomes?
23. Describe the importance of the membrane surrounding the lysosome.

***Centrioles***

24. What are centrioles made of?
25. When are centrioles used (you may also need to refer to pp. 248 and 250)?

***Mitochondria*** (pg. 197)

26. What is the cell's powerhouse?
27. What is the function of mitochondria?
28. Describe the membrane structure of the organelle.

***Chloroplasts***

29. What is the function of chloroplasts?
  
30. Describe what happens in the thylakoid compartments.
  
31. Thoroughly describe plastids, what they are, what they do, what they contain.

***Cell Wall*** (pg. 198)

32. Of what material (organic molecules) are cell walls made?
  
33. Where is the cell wall found?
  
34. What is the function of the cell wall?

***Cilia and Flagella***

35. Describe cilia and their movement.
  
36. Describe flagella and their movement.
  
37. What are cilia and flagella made of and what is the arrangement of these?
  
38. Infer where in our bodies might we find cells containing cilia? You should refer to Figure 7.19 and Table 7.1.
  
39. Why do people equate the cell to a factory (read pg. 200)?