Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class Period:\_\_\_\_\_\_\_\_\_\_\_

**FINAL EXAM REVIEW**

These questions are very similar to the questions on the final exam. They also go in the same order as the exam questions. *Review/Extra help before school (8am), 4th period, and 8th period.* **You will receive 5 bonus points for completing this study guide.** **TAYLOR@whsad.org** **if you have any important questions!**

1. What is light energy?
2. What is chemical energy?
3. What is ATP energy?
4. Where does cellular respiration occur?
5. What are the building blocks of starch?
6. What are antigens?
7. What are antibodies?
8. Which numbers are acid on the pH scale? Which numbers are bases? What is neutral?
9. What is the difference between active and passive transport?
10. What is the optimum pH of an enzyme, and how do you find it on a graph?
11. What are 2 jobs of white blood cells, and what body system do they function in?
12. How does AIDS affect the homeostasis of an individual?
13. Name 3 molecules that can diffuse through the cell membrane, and explain WHY they are permeable.
14. Name 1 molecule that is not permeable to the membrane, and explain why.
15. Why do single celled organisms need organelles?
16. What is the energy needed to power the cells of all organisms?
17. Which 2 reactants diffuse into the cell for cellular respiration?
18. Which 2 waste products leave the cell during cellular respiration?
19. What does the word “catalyst” mean? What are the catalysts in living things called?
20. How do we make ATP? What do we need to make ATP?
21. An ostrich gamete has 30 chromosomes. How many chromosomes are in a zygote?
22. A squirrel liver cell has 10 chromosomes. How many chromosomes are in a squirrel egg?
23. How are enzymes, antibodies, and hormones similar?
24. Which cells do hormones affect? (How is a hormone message received?)
25. What is another name for the zygote?
26. How do all cells in an organism have identical DNA, but look and function different from one another?
27. What is diffusion?
28. Place the following in order: cell, organelle, organism, tissue, organ system, organ
29. Why are the first 8 weeks of life so important?
30. What is the job of insulin?
31. Where is insulin made?
32. What is one reason that blood sugar might not be able to be controlled?
33. What is meiosis? How does it affect the amount of DNA in a cell?
34. What is fertilization? How does it affect the amount of DNA in a cell?
35. What is an allergic reaction?
36. What is a vaccine?
37. If you get a chicken pox vaccine, what is the expected result?
38. Where does the zygote implant?
39. Name the 3 reproductive hormones.
40. What color is starch indicator?
41. What color does starch indicator turn if it is in the presence of starch?
42. STATE LAB- What did we put inside the bag? What did we put outside the bag? What color did the bag turn?
43. Why couldn’t starch leave the bag?