**STUDY GUIDE FOR CELL ENERGY and CELL CYCLE TEST:**

1. What does ATP stand for? How many Phosphates does it have?
2. What organelle form ATPs?
3. What does ATP break down into when it is used?
4. What does ADP stand for? How many Phosphates does it have?
5. Cellular Respiration is the opposite of what other cell process?
6. What is the definition for Cellular Respiration?
7. What is the difference between Aerobic and Anaerobic reactions?
8. What process splits glucose in the cytoplasm and what molecules does it form?
9. Is Glycolysis aerobic or anaerobic?
10. What organelle does Cellular Respiration take place in?
11. What is the First stage of Respiration called and in what part of the organelle does it take place in?
12. What gas is released during the 1st stage of Respiration?
13. What is the second stage of Respiration and in what part of the organelle does it take place in?
14. What gas in needed for the second stage of Respiration?
15. What is formed with the energy released by the glucose in Cellular Respiration?
16. What kind of organisms use Photosynthesis? Cellular Respiration?
17. In what part of a plant will photosynthesis take place?
18. In what organelle does photosynthesis take place in?
19. What pigment is needed to capture light energy for Photosynthesis?
20. What is the first stage of photosynthesis called and what part of the organelle does it take place in?
21. What gas is released during the first stage of photosynthesis?
22. What is the second stage of photosynthesis, what part of the organelle does it occur, what cycle ?
23. What is the chemical equation for Cellular Respiration and what is it for Photosynthesis?
24. What are the 3 major parts of the Cell Cycle?
25. What are the 3 stages of Interphase and what happens in each stage?
26. What is the definition for Mitosis and what kind of cells does it make?
27. What are the 4 stages of Mitosis in order? (make sure you know what they look like)
28. What happens to the chromosomes during Prophase?
29. What holds sister chromatids together during Prophase?
30. What happens to the sister chromatids during Metaphase?
31. What will the spindle fibers attach to during Metaphase?
32. What happens to the sister chromatids during Anaphase?
33. How many sets of chromosomes are in the cell during Telophase?
34. What part of the cell divides during Cytokinesis?
35. What is the differences between Animal cell cytokinesis and Plant cell cytokinesis?
36. What is the original cell that divides called? What are the 2 new cells formed called?
37. What is another name for programmed cell death?
38. What disease does uncontrolled, fast , cell division develop?
39. What is the diploid number of human body cells and what is its symbol?
40. What is the haploid number for humans and what is its symbol?
41. Body cells have chromosomes in pairs, 1 from mom and 1 from dad, called \_?\_ pairs.
42. What is the definition for Meiosis and what kind of cells does it make?
43. What is the gamete for males and the gamete for females?
44. What are the 8 phases of Meiosis in order? (make sure you know what they look like)
45. What are Gametes? Are they diploid or haploid cells?
46. What are the 2 sex chromosomes for Boys? Girls?

Meiosis= the reduction division of the nucleus that forms gamete cells with a haploid number of chromosomes

Mitosis = the division of the nucleus that forms body cells with a diploid number of chromosomes