Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chapter 4 Test Review

1. What is the difference between an autotroph and a heterotroph and give an example of each:
2. Which group(s) of organisms carryout photosynthesis?
3. Which group(s) of organisms carryout cellular respiration?
4. What molecule is used to power cellular activities?
5. What process uses light energy and inorganic compounds to make organic chemical energy?
6. What process converts food energy into ATP?
7. What three parts/molecules make –up an ATP molecule?
8. When chemical bond break what is released?
9. What part of the cellular respiration process creates a proton/electron concentration gradient and produces 32 ATP.
10. Plants are green because they contain the pigment\_\_\_\_\_\_\_\_\_\_\_\_ which reflects \_\_\_\_\_ light wavelengths.
11. What product of photosynthesis is used by all living things in aerobic respiration?
12. What reactant in the Light Independent/Calvin cycle is used as a carbon & oxygen source for the glucose molecule?
13. What happens to the glucose molecule during glycolysis?
14. What is the name of the 2 3-carbon molecule (pyruvate) product of glycolysis?
15. How many ATP molecules (profit/net) are produced in glycolysis?
16. Is glycolysis aerobic or anaerobic?
17. Is Kreb’s and the Electron Transport Chain anaerobic or aerobic?
18. What is the purpose of fermentation?
19. The amount of ATP produced is determined by which reactant?
20. How do enzymes affect the energy of activation?
21. What does substrate specific mean when referring to enzymes?
22. Identify the major difference in prokaryotes and eukaryotes (Hint: think of your Greek/Latin roots)
23. What does “membrane-bound organelles” mean?
24. Which group of cells contain membrane-bound organelles?
25. The blueprint for our proteins is found in which biomolecule?
26. What is the function of ribosomes?
27. Do eukaryotic cells contain only one of each kind of organelle?
28. What is the difference in diffusion and osmosis?
29. Identify the three types of passive transport.

Greek and Latin Roots:

auto = bio = chemo = chlor =
endo = exo = hetero = logos =
photo = sis = syn = troph =