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

This study guide can be completed using notes taken in class, notes found on Ms. Caven’s website, or by working together as a table group. This study guide is due the day of the test. **Use your resources to help you study.**

Biology Study Guide: Cells

Define and understand the function of the following terms:

* Cell
* Chromosomes
* Chromatin
* DNA
* Cytoplasm
* Endoplasmic Reticulum
* Cell Membrane
* Ribosome
* Vacuole
* Chloroplast
* Mitochondria
* Lysosome
* Nucleolus
* Golgi Body
* Nuclear Membrane
* Centriole
* Nucleus
* Passive Transport
* Active Transport
* Osmosis
* Facilitated Diffusion
* Diffusion
* ATP
* Hypotonic
* Hypertonic
* Isotonic
* Exocytosis
* Endocytosis
* Selectively Permeable
* Homeostasis
* Cancer
* Tumor
* Metastasized
* Benign
* Malignant
* Cell Cycle
* Interphase
* Prophase
* Metaphase
* Anaphase
* Telophase
* Cytokinesis
* Mitosis
* Anabolic
* Catabolic

**Short Answer Questions:**

1. What type of molecules are transported during osmosis and diffusion and where are they transported?
2. What type of molecules are transported during facilitated diffusion and where are they transported?
3. What is different about active transport?
4. A dividing cell that had 8 chromosomes before mitosis will have how many chromosomes after mitosis?
5. Explain and describe each of the steps of the scientific method.
6. Draw what endocytosis and exocytosis look like and describe the differences between them:
7. What cell organelles are only found in plant cells? Animal Cells? Both?
8. Where are proteins made in the cell?
9. What is the result of mitosis?
10. Describe what happens during each step of interphase of a cell (G1, S, G2).
11. Describe and draw what happens in Prophase, Metaphase, Anaphase, Telophase, and Cytokinesis.
12. What is homeostasis and what is an example of this in the body?
13. What would happen to a human blood cell in a hypertonic, hypotonic, and isotonic solution and why?
14. What should the bodies response be to a cancer cell developing?
15. What are anabolic and catabolic and what do they have to do with metabolism?
16. What does the following picture represent (Hint: It is a cell organelle)?

