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Period \_\_\_\_\_

Ms Foglia

Date \_\_\_\_\_

## AP: CHAPTER 7

### THE CELL

1. The tool that lead to the understanding that cells are the basic unit of life was the...

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2. The smallest structures visible with the light microscope are the ....

\_\_\_\_\_

3. What is the advantage of the electron microscope?

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\_\_\_\_\_

\_\_\_\_\_

4. How do biologists isolate cell components?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. What are four things all cells have in common?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

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6. How do prokaryotic and eukaryotic cells differ?

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7. What is a limiting factor to cell size?

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8. How do ribosomes differ in prokaryotic and eukaryotic cells?

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9. Why is that difference important to us?

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10. What is the adaptive value of the endomembrane system? \_\_\_\_\_

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11. For each of the cellular structures, indicate a few significant aspects. Include major functions and structures.

Nuclear membrane
Nuclear pores
Nuclear lamina
Chromatin
Nucleolus
Ribosome
Smooth ER
Rough ER
Golgi apparatus
Lysosome
Vacuole
Mitochondria
Chloroplast

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Peroxisome
Cytoskeleton
Microtubule
Microfilament
Intermediate filament
Extracellular matrix
Plasmodesmata
Tight junction
Desmosomes
Gap junctions

12. Trace the path of production of a protein-based secretion from a secretory cell. (List the organelles involved)

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