

Name \_\_\_\_\_

Period \_\_\_\_\_

AP Biology

Date \_\_\_\_\_

**RAVEN CHAPTER 5 GUIDED NOTES: CELL STRUCTURE**

1. What are the three features all cells have in common?

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

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

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

2. What are the three principles of the Cell Theory?

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

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

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

3. What is a limiting factor to cell size?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

6. What is the advantage of the electron microscope?

\_\_\_\_\_

\_\_\_\_\_

7. How do prokaryotic and eukaryotic cells differ?

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

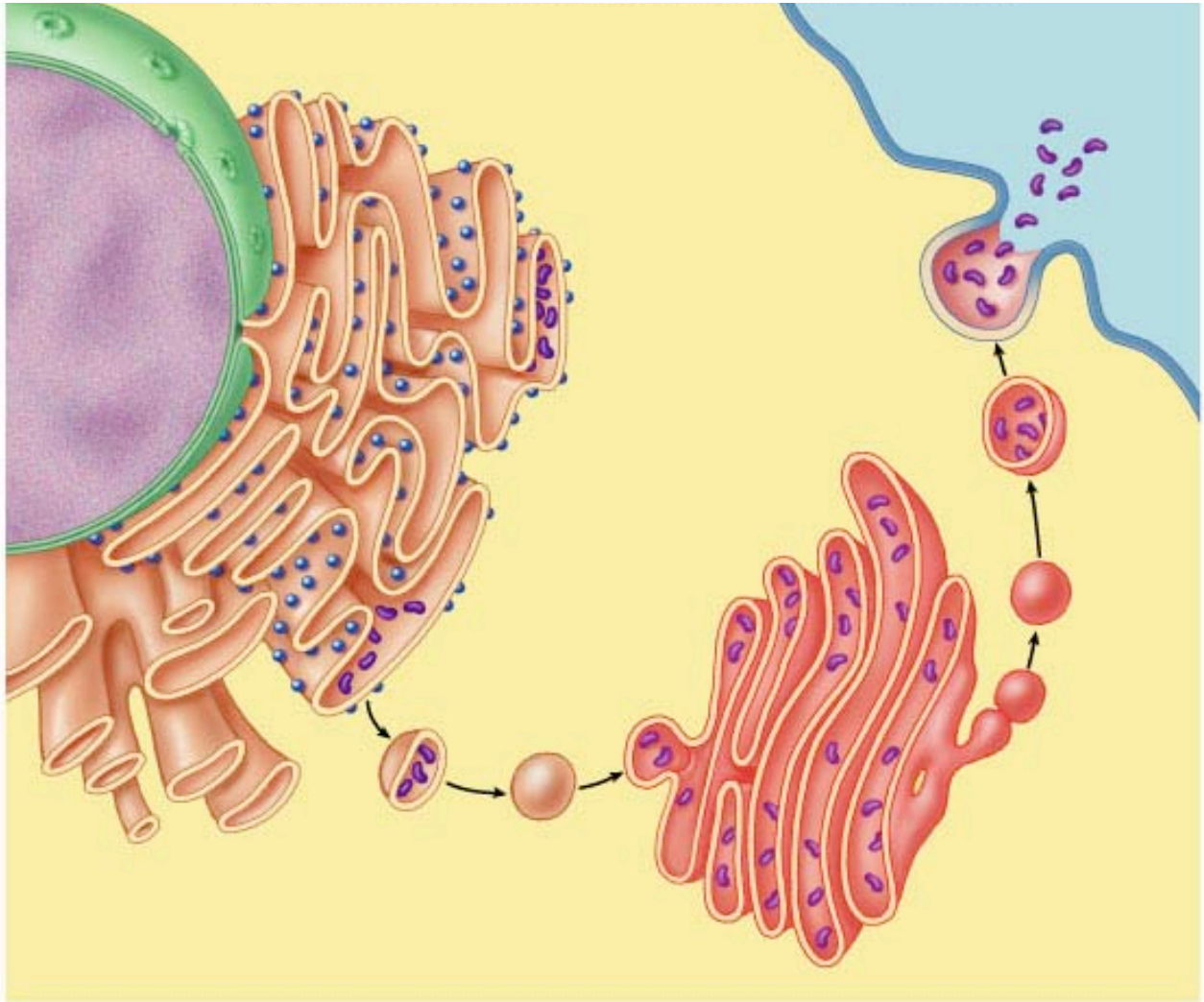
Nuclear membrane
Nuclear pores
Chromatin
Nucleolus
Ribosome
Smooth ER
Rough ER
Golgi apparatus

Name \_\_\_\_\_

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Lysosome
Vacuole
Mitochondria
Chloroplast
Peroxisome
Cytoskeleton
Microtubule
Actin Microfilament
Intermediate filament
Centrioles
Extracellular matrix

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



10. Describe the Theory of Endosymbiosis and explain its relevance to eukaryotic cell structure.

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