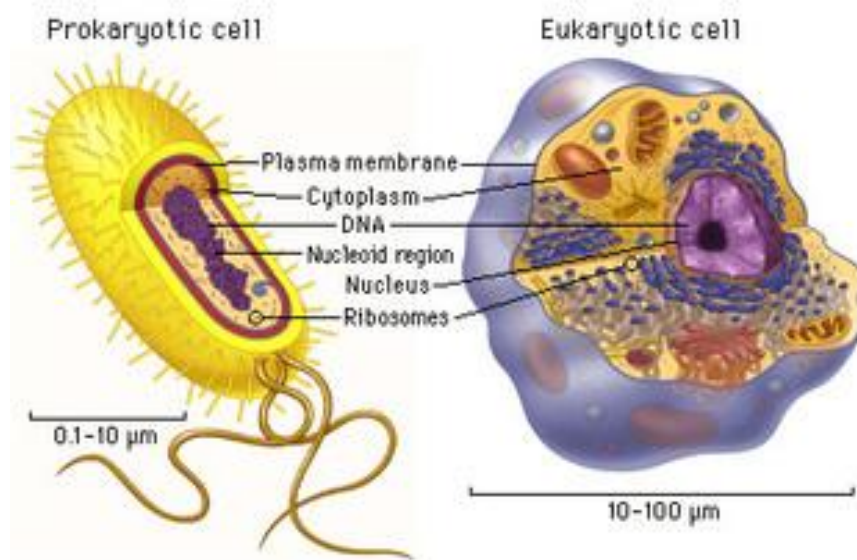


Name _____ Date _____ Period _____

Biology Homework 1-3.3 Cells III

Use your **journal** as a reference tool in addition to the information provided below. Circle your answer choices and justify your answers.

Eukaryotes	Prokaryotes
<ol style="list-style-type: none">1. Large cells2. Many organelles; complex cells3. Have a nucleus with DNA inside4. Plants; animals	<ol style="list-style-type: none">1. Smaller than eukaryotes2. No organelles; simpler cells than eukaryotes3. No nucleus; DNA is circular and floats in middle of cell.4. Bacteria
Both have a cell membrane, cytoplasm, DNA, and ribosomes.	



Chloroplast - site of photosynthesis

Endoplasmic reticulum (ER) - a series of highly folded membranes that act as the highway of the cell

Golgi apparatus - a series of flattened membrane sacs that sorts, modifies, and distributes proteins

Lysosomes - contain enzymes that digest or break down worn out cell parts, excess food particles, and invading bacteria or viruses

Mitochondria - produce usable energy in the form of ATP through cellular respiration

Nucleus - contains DNA, which holds the instructions for making proteins

Ribosomes - the site of protein synthesis

Vacuoles - store things (enzymes, food, and other materials) within the cell

Complete the following T-chart comparing eukaryotic cells and prokaryotic cells using the word bank provided.

- Has A Nucleus
- Plant Cell
- Does Not Have A Nucleus
- Has Membrane Bound Organelles
- Does Not Have Membrane Bound Organelles
- Animal Cell

- Human Cheek Cell
- Bacteria
- Onion Cell
- Simple
- Complex
- Plant Cell

Eukaryotes	Prokaryotes

1. Some algae cells have only one mitochondrion. What can you infer about the energy level of these cells?
 - a. They fluctuate, depending on the temperature in their external environment.
 - b. They are very low.
 - c. They are very high.
 - d. More information is needed to determine an answer.
2. Which of the following statements is incorrect?
 - a. The cell membrane protects the cell from the outside environment and allows certain things to enter.
 - b. The mitochondria produce the ATP molecule the cell needs.
 - c. The nucleus is the site where proteins are assembled.
 - d. The lysosome contains some of the cell's waste products.
3. What organisms consist of prokaryotic cells?
 - a. Fish
 - b. Bacteria
 - c. Humans
 - d. Turtles