

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

### Biology Homework 1-5.2 Cells Rewind

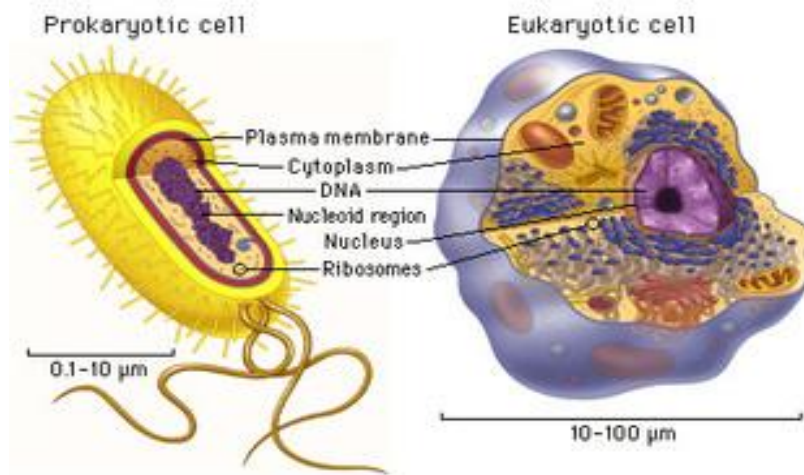
Use your **journal** as a reference tool in addition to the information provided below. Circle your answer choices and justify your answers.

The **cell theory** states that:

1. Cells are the basic unit of life.
2. All living things are made of one or more cells.
3. Cells can only come from other living cells.

Cells are either eukaryotic or prokaryotic.

| <b>Eukaryotes</b>   | <b>Prokaryotes</b>  |
|---|---|
| <ol style="list-style-type: none"><li>1. Large cells</li><li>2. Many organelles; complex cells</li><li>3. Have a nucleus with DNA inside</li><li>4. Plants; animals</li></ol> | <ol style="list-style-type: none"><li>1. Smaller than eukaryotes</li><li>2. No organelles; simpler cells than eukaryotes</li><li>3. No nucleus; DNA is circular and floats in middle of cell.</li><li>4. Bacteria</li></ol> |
| 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

1. Amino acids link together by peptide bonds to form proteins. In which cellular organelle would this process occur?
  - a. Mitochondria
  - b. Ribosome
  - c. Lysosome
  - d. Golgi body
  
2. Which is surrounded by a double membrane and is the site for photosynthesis in plants?
  - a. Nucleus
  - b. Lysosome
  - c. Cell wall
  - d. Chloroplast
  
3. What organelle packages proteins into forms that the cell can use, expel, or store?
  - a. Centrioles
  - b. Golgi bodies
  - c. Lysosomes
  - d. Mitochondria
  
4. The structure most responsible for maintaining cell homeostasis is the \_\_\_\_\_.
  - a. Cytoplasm
  - b. Cell wall
  - c. Mitochondrion
  - d. Plasma membrane
  
5. Which of the following is true about all cells?
  - a. All cells are the same size.
  - b. All cells contain a nucleus.
  - c. All cells come from pre-existing cells.
  - d. All cells have membrane bound organelles.
  
6. Which of the following is found in both prokaryotes and eukaryotes?
  - a. Nucleus
  - b. Cell membrane
  - c. Mitochondria
  - d. Golgi apparatus