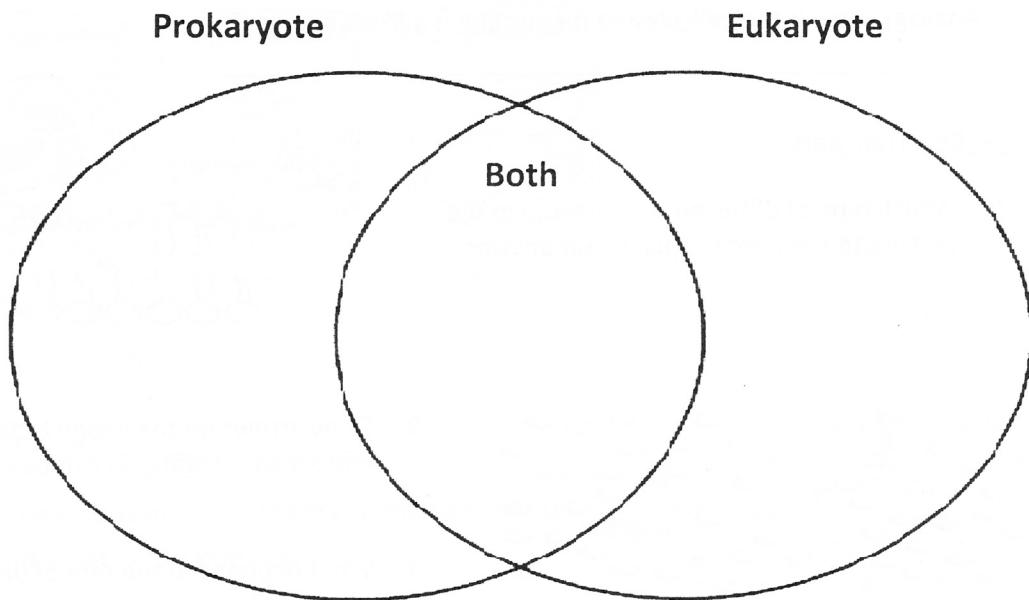


# Biology 1<sup>st</sup> 6 Weeks Review Sheet 2014-15 : Test dates: A day: Oct. 1st, B day: Oct. 2nd

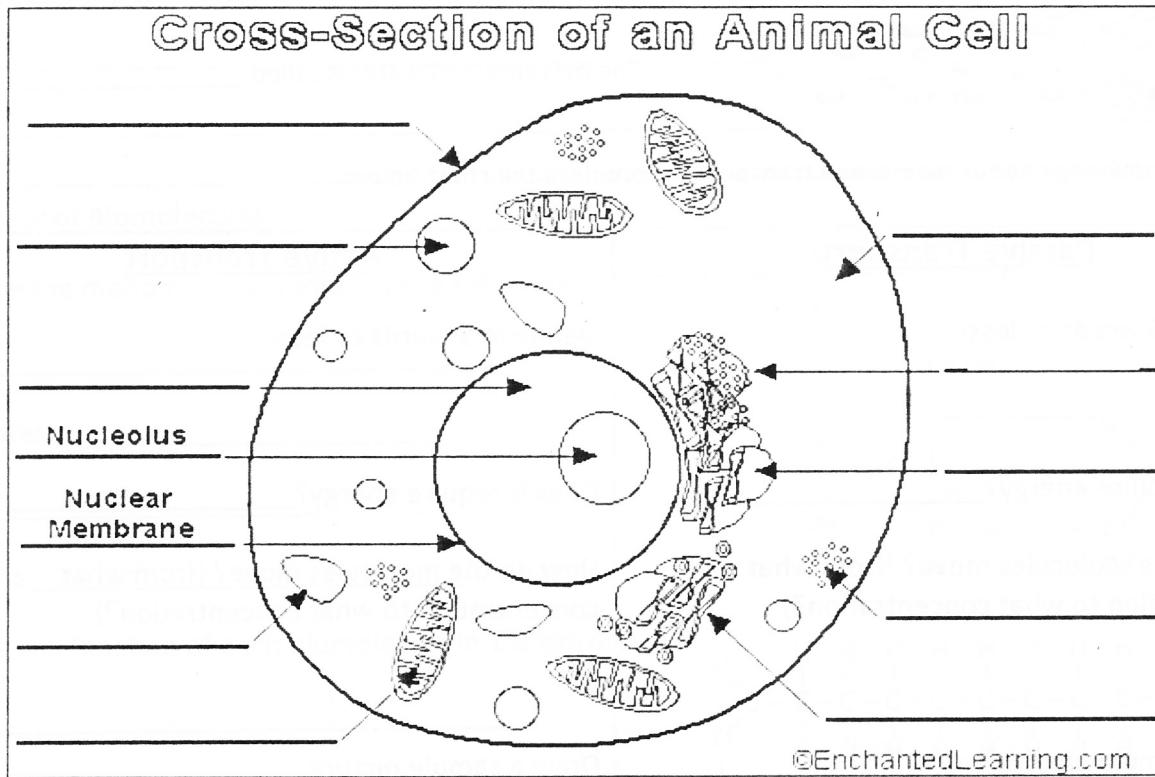
Name \_\_\_\_\_ Period \_\_\_\_\_ Teacher \_\_\_\_\_

**Part 1: Organelles** Using the characteristics provided below, complete the Venn diagram to compare & contrast prokaryotes and eukaryotes.

- Has a nucleus
- Does not have a nucleus
- Has genetic material/DNA
- Has membrane-bound organelles
- Simple cells
- Most complex
- Bacterial cells
- plants & animal cells
- ribosomes
- nuclear membrane
- cell membrane
- cytoplasm



In the image below identify the organelles:

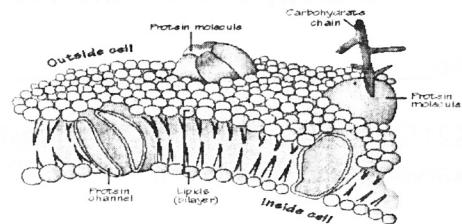


Sequence the levels of organization from least to greatest.

Organelle → \_\_\_\_\_ → tissue → \_\_\_\_\_ → \_\_\_\_\_ → organism

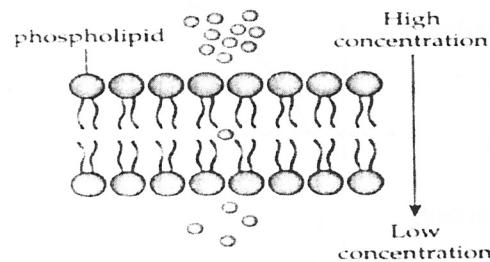
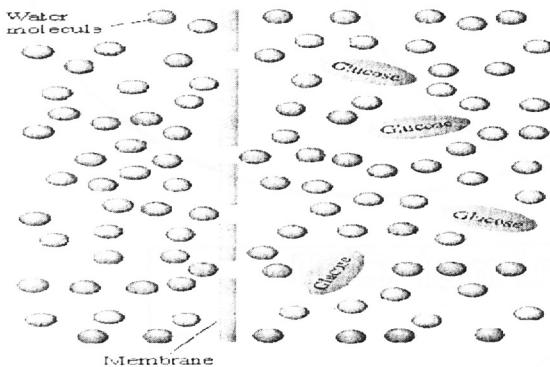
## Part 2: Cell membrane

1. True or False. All cells have a cell membrane. \_\_\_\_\_
2. Which structures are embedded in the plasma membrane that helps transport molecules? \_\_\_\_\_
3. The cell membrane is mostly composed of \_\_\_\_\_.
4. Analogy: How is the cell/plasma membrane like a strainer?



## Part 3: Cell Transport

1. Which type of diffusion is illustrated in the picture to the right? Explain your answer.



2. Draw arrows on the image to the left to illustrate the movement of water in osmosis.
3. What happens to the rate of diffusion when temperature increases?
4. The movement of water is called \_\_\_\_\_.

5. Use your knowledge about membrane transport to complete the chart below.

### Passive Transport

Define in 5 words or less-

Does it require energy? \_\_\_\_\_

How do the molecules move? (from what concentration to what concentration?)

Draw a sample picture.

### Active Transport

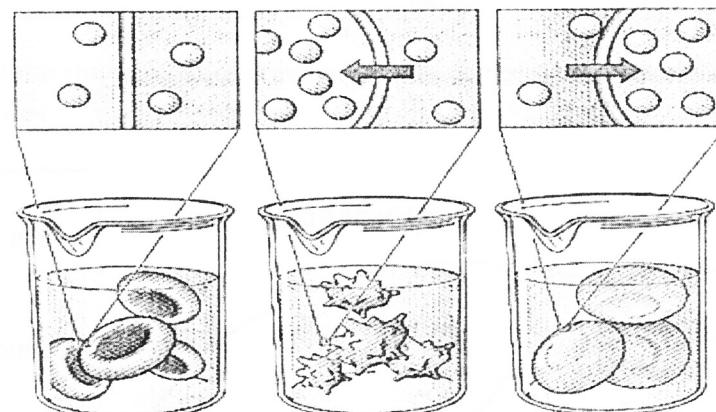
Define in 5 words or less-

Does it require energy? \_\_\_\_\_

How do the molecules move? (from what concentration to what concentration?)

Draw a sample picture.

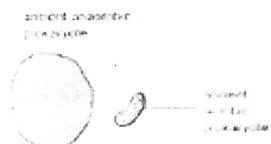
6. Identify which solution is isotonic, hypotonic, or hypertonic below. Explain your answers. Be sure to relate these concepts to the gummy bear and egg labs, demos, and videos in class.



## Part 4: Endosymbiotic Theory

1. What does the prefix “endo-“ mean? \_\_\_\_\_

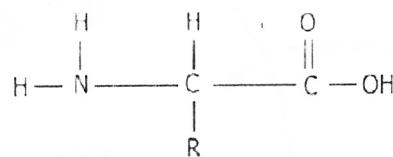
2. The image to the right shows the endosymbiotic theory. Describe in your own words what is happening and what is the end result?



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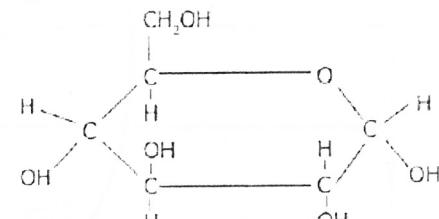
## **Part 5: Review of Biomolecules**

1. What are the monomers (subunits) of the following:



## Protein

Carbohydrates

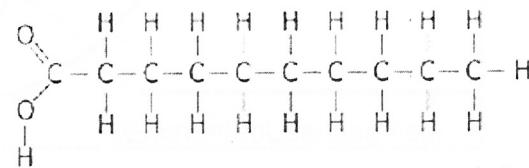


## Lipids

## Nucleic acids

2. Give the function of each biomolecule in 1-3 words.

### Protein



## Carbohydrates \_\_\_\_\_

## Lipids

Nucleic acids

