**Unit 3A Portfolio Options**

**1. REQUIRED Portion:** Artistic Organization

Imagine you are a famous artist who excels in crating comic book type drawings. You have been contracted by a biological supply company who is trying to create a series of cell organelle flash cards for high school sophomores to use to help them remember the cell organelles, what they look like and their functions. Since you know that it is easier to remember something if you relate it to something familiar, include examples of that practice on your cards. Of course you are expected to create a card for all the organelles, they should be colorful and creative. The company is expecting these to be on 3 x 5 cards. Humorous or gross examples are always a big hit with kids, so you might want to include those for that extra special touch.

(AND)

**2. PICK YOUR OWN Portion:** Select one of the following to complete your portfolio assignment.

**Option 1: Creative Writing**

Imagine you are a struggling writer who has been given your first big break! You have been chosen by a widely read scientific magazine to write a feature article about “The Day Diffusion Stood Still”. You should plan on this being at least 2 pages long so you can cover the requirements, definitely typed with double spacing using no larger than 12-count font. Remember that you need for this article to be interesting as well as informative. Be creative and give examples of what would happen to things on Earth if there was no diffusion.

(or)

**Option 2: Historical Research**

Imagine you are a scientific researcher who has been given the chance of a lifetime! You have been selected to learn more about Schleiden, Schwann and Virchow. Your research should include information about the processes these fellow researchers used as well as their conclusions. As part of your research, you should create a timeline showing the contributions of these men to the creation of the cell theory. The firm that has hired you is expecting at least 2 pages of information that is typed and double-spaced. They do not wish to read fonts larger than 12.

(or)

**Option 3: Medical Research**

Imagine you are a famous urologist who is scheduled to give a lecture to a room full of beginning medical students. You are to discuss how kidney dialysis relates to diffusion and osmosis. Include the functioning of the kidneys, how dialysis is performed and why. Include in your presentation who might need dialysis and any other pertinent information you come across. Your group is expecting a powerpoint presentation with pictures, so make sure you have some interesting as well as informative slides. You don’t want anyone going to sleep during your lecture!

(or)

**Option 4: Model-building**

Imagine you are a famous architect and movie-set designer who has been commissioned to produce a realistic model of the plasma membrane. You are attempting to persuade a major biological corporation to select your model to build in their lobby. This could mean big bucks for you, so your model needs to be spectacular! It should definitely be 3-D in nature, not constructed of food items. It should be fully labeled so the parts are easy to identify and you should accompany your model with a description of the functions for each of the parts. You will receive a bonus if you can create a model that exhibits fluid behavior. Your model should be no larger than 30cm x 30cm.

(or)

**Option 5: Technology Construction**

Imagine a desperate high school biology teacher who needs an interesting webquest for her students to do in order to help them understand cell concepts has contacted you. What she needs is a webquest that consists of at least 5 websites and has guiding questions to go along with the websites. The webquest should cover all aspects of the topics being studied during the cell unit: cell organelle functioning, plasma membrane makeup and functioning as well as diffusion and osmosis. Make sure you give credit to each website you use!

**DUE FRIDAY, FEBRUARY 12th (TEST DAY)**