

PCB BIO 4 ASSIGNMENT SHEET 8:OCTOBER 12-16, 2009

Reading, Preparation, Study Questions, Practice Essays, Labs.

| ASSIGNMENT | DESCRIPTION |
|------------|--|
| MONDAY | No School: Columbus Day. |
| TUESDAY | <p>We are back, and your back has membranes in it. The membranes are in your cells, and they are mostly made up of phospholipids, proteins, cholesterol, and carbohydrates. The cells are really small and we did a lab couple of weeks ago that showed us why cells are small. It is all about the rate of diffusion, and a cells surface area to volume ratio. The bigger that ratio, the more stuff can get into and out of a cell during a given amount of time. If cells are too voluminous, important molecules will not be able to get into and out of the cell in time. That will result in the inability to maintain homeostasis, and eventually cell death. Membranes are incredibly important.</p> <p>Perhaps the most important aspect of membranes is the fact that they are able to control which solutes are able to move across them. By controlling what ions and molecules move across membranes, cells are able to control their environment and make a lot of ATP with enzymes.</p> <p>Enzymes are very important to life as well. We just learned a lot about them as well.</p> <p>The next section of material is hard to understand for many humans learning it for the first few times. Since this is your first time learning it, it might get really confusing. The good news is that you can still ask questions as we learn the information in class. This stuff is complicated but really great to know.</p> <p>Chapter 6 in your book will help you figure out the intricacies of cellular respiration.</p> <p>Tonight Read the introduction to chapter 6.</p> |
| WEDNESDAY | <p>Explain glycolysis in your own words.</p> <ol style="list-style-type: none">1. What is the fuel for glycolysis?2. What are the usable products of glycolysis (there are 3)?3. Where does glycolysis happen? |
| THURSDAY | <p>Explain the krebs cycle reactions, including the pre-Krebs action of pyruvate dehydrogenase.</p> <ol style="list-style-type: none">1. Where does the prekrebs and krebs cycle occur?2. what is the fuel of the pre-krebs?3. What is the fuel of the Krebs cycle?4. What are the usable products of the reactions? |
| FRIDAY | <p>You have to spend time studying this weekend. Come up with questions that you have regarding cellular respiration. It is not easy to understand, and asking quesitons will help you. Of course, you should listen in class too.</p> |