Internet Assignment: ATP Synthase

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_

<http://vcell.ndsu.nodak.edu/animations/atpgradient/movie-flash.htm>

1. What type of energy is often used to perform biological work, and where does this energy come from?
2. Whats another name for a hydrogen ion?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What is a concentration gradient?
4. What else is inorganic phosphate also known as?
5. Where is ATP is synthesized? What is the complex called that actually synthesizes ATP?
6. What type of concentration gradient is used to drive the production of ATP?
7. How many hydrogen ions enter the complex?
8. Where do they enter the complex from?
9. Where does the second hydrogen ion exit into?
10. How many protons must go through the complex to generate 1 molecule of ATP
11. What maintains the mitochondrial hydrogen ion gradient?
12. Label the following parts of the mitochondria, & Where is ATP Synthase located?