

AP Biology 012 – Life Requires Free Energy Video Review Sheet

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1. Introduction:
 - a. Where do we get a constant supply of free energy?
 - b. What do plants do with it?
 - c. How do we utilize free energy?
 - d. What is “neat” about glycolysis?
 - e. What are the three major things we GET from free energy?
 - f. What is homeostasis?
 - g. What can we do with extra free energy?
 - h. What happens when we get disruptions?
2. Life requires:
3. To maintain order we require a constant
4. What is the first law of thermodynamics?
5. Eventually all energy ends up as
6. What is the second law of thermodynamics?
7. What is entropy?
8. How can evolution occur if things are going to greater disorder?
9. What is glycolysis? Why does it cost ATP?

10. How is it that different types of sugars can use glycolysis though they all don't contain glucose?
11. What is the relationship between metabolism and size? Why do mice have such a high metabolism?
12. Organization requires
13. What is released when you break down ATP to ADP?
14. Growth isn't just about getting bigger but also
15. We use extra energy to do:
16. We can store
17. What happens if we have a decrease in free energy – as people?
18. Describe what happened at Easter Island.