Nature of Science Review Guide - Due on Test Day!

Class Copy, you can find this on my web page under Nature of Science.

*Review all material completed for this unit including notes, Bell Ringers, Microscope lab, What in the World Is It? Activity, Daphnia Heart Rate Lab, The Strange Case of Beriberi, Graphing Activity, and Gummy Bear and the Flaming Ring of Death. Then answer the questions below.*

1. Define the goal of Science.
2. List the 8 characteristics of a living organism.
3. Define Scientific Theory. Scientific law, Hypothesis and Belief. Write an example of each.
4. Define independent, dependent and control (constant) variables.
5. What is the difference between qualitative and quantitative observations?
6. When comparing eye color in a classroom:
7. No graph can display this data
8. A bar graph is used
9. A line graph is used
10. In an experiment where honey is given to children instead of sugar to test which is preferred, what would be the independent variable?
11. Taste
12. Honey
13. Child
14. In an experiment involving the relationship between involvement in sports and GPA:
15. The student GPA would be the dependent variable.
16. The student involvement would be the dependent variable.
17. The hypothesis is already stated.
18. One experimental trial was adequate
19. When using a microscope, field of view gets smaller as magnification:
20. Decreases
21. Increases
22. Stays the same
23. Which lens should you start with when finding the organism?
24. 10x
25. 4x
26. 40x
27. In the Daphnia lab, what was the dependent variable?
28. Write a hypothesis for question. How does student height relate to student weight?
29. Graph the following data set using TAILS. Use the correct type of graph and be sure to include appropriate labels. Remember the independent variable should go on the x axis. You do **not** need to convert to the metric system. Draw a trend line.

Student 1- Height= 72inches Weight= 165 lbs

Student 2- Height= 65 inches Weight= 135 lbs

Student 3- Height= 68 inches Weight- 142 lbs

Student 4- Height- 75 inches Weight= 180 lbs

1. Write a concluding statement related to your hypothesis after analyzing the graph.