Designing an Experiment: Read pages R28 – R 35

1. What is an experiment?
2. Why do you think it is important to learn as much as possible about your topic?
3. What was the problem the students observed?
4. What was the inference the students made about the cause of the problem?
5. Is it ok to change your purpose as you do research?
6. What is a Hypothesis? And what is the proper form to use most of the time?
7. What is the difference between the control group and the experimental group?
8. Did the students have enough things in their material list to cover the control group and experimental group?
9. What is a variable?
10. What are constants?
11. What is an independent variable?
12. What was the independent variable in the students experiment?
13. What is a dependent variable?
14. What was the dependent variable in the students experiment?
15. How does the hypothesis help you identify the independent and dependent variables?
16. What are the constants in the students experiment?
17. Which operational definition did you think was the better operational definition to use (qualitative or quantitative)? Explain.
18. How should you start each step in your procedures?
19. How did the students control the variables in their procedures?
20. Why is important to record mistakes you might have made when recording observations?
21. When would you want to use a line graph and when would you choose to make a bar graph?
22. What should you always include when making a graph?
23. What 3 things should you do to draw conclusion from your experiment?
24. Were the students' results conclusive to the cause of the presence of algae in the lake?
25. Which of the questions for further research would you want to research/experiment? Why?