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Pre-AP Biology Final Review

This study guide should only be used as a guideline to help you study. If you only study this study guide you will NOT have done enough to make a good grade on the exam. Use this and your notes to guide you in your efforts to prepare for the upcoming exam.

Unit 0: Lab Safety/Graphing/Scientific Method

Safety

1. Review the lab safety rules off of my website.
2. You have accidentally broken a test tube and spilled a chemical on the table. Which of the following best explains what you should do?
 - a. Use water and paper towels to clean up the spill; place the broken test tube in the disposal container specified by the teacher for sharp objects.
 - b. Throw the glass into the nearest trash bin and let the spill air-dry.
 - c. Quickly dispose of the glass, wipe up the spill with the nearest cloth, and hope nobody notices.
 - d. Caution your lab partners to avoid the area while you inform the teacher of the small accident.
3. What is important to remember while you are using heat?
 - a. Do not heat closed containers
 - b. Point the mouth of the container away from yourself and classmates.
 - c. Always use clamps to hold the container.
 - d. All of the above.

4. Horseplay or practical jokes in the laboratory are:

- a. Always against the rules.
- b. Okay.
- c. Not dangerous
- d. Okay if you are working alone.

5. You are heating a substance in a test tube. Always point the tube

away from u+others

6. When you finish working with chemicals, biological specimens, and other lab substances, always

dispose of things properly | wash hands

7. If a piece of equipment is not working properly, stop, turn it off, and tell

the teacher

Scientific Method

Vocabulary Cards

9. What is the first step in a scientific investigation?

10. List the 10 steps discussed in class: 1. Ask the Q's 2. Make an Obs. 3. Experiment 4. Draw Concl. 5. Research 6. Collect Data 7. Summarize 8. State Hypoth 9. Analyze Data 10. Report Results

11. What is the difference between an inference and an observation? educated guess from obs what is seen

12. An experiment was designed to test whether coffee made plants grow taller. Two identical plants were used. One was placed in a window sill and given plain water every morning. The other plant was placed in a dark closet and given coffee every other morning. After two weeks the two plants were measured and the plant given the plain water was 3 inches taller than the other plant.

What is wrong with this experiment?

- a. Too many dependent variables
- b. Too many controls
- c. Too many independent variables
- d. Too few plants

13. What is the dependent variable?

- a. The height of the plants.
- b. The number of plants.
- c. The coffee.
- d. the water

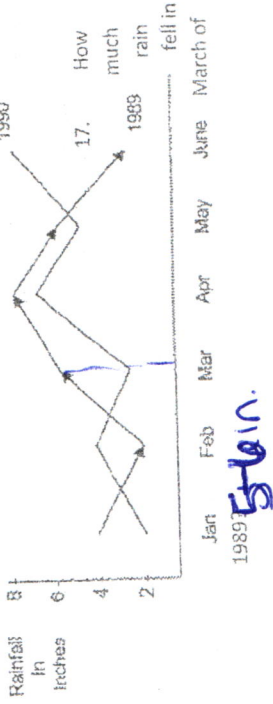
14. Which plant is the experimental group?

- a. The plant given coffee
- b. The plant given water
- c. Both the plants
- d. Neither plant

15. Which plant is the control group?

- a. The plant given coffee
- b. The plant given water
- c. Both the plants
- d. Neither plant

16. Answer these questions about the graph :



18. How much more rain fell in February of 1990 than in February of 1989?

2 in.

19. Which year had the most rainfall?

1990-27 1989-20

20. In what month did both years have a great chance of rain on the graph?

April