Name_____ Class_____ Date_____

Review for Quiz #1 on Observations and Variables

I know I am ready for Quiz #1 when I can:

_____ Differentiate between qualitative and quantitative observations
_____ Record detailed qualitative observations and accurate quantitative observations
_____ Identify variables, levels, and trials in an experiment
_____ Explain why constant variables are important
_____ Write a testable question in the format: What is the effect of (IV) on (DV)?

Vocab to know: qualitative observation, quantitative observation, independent variable, dependent variable, constant variables, levels, repeated trials, testable question

NOTE: You will need to know the definitions of these words, but you will also be able to apply these words in order to answer questions and identify variables in an experiment. Just knowing the vocabulary is not enough-that is the beginning!

The Quiz will have 3 parts:

Part 1: Vocabulary Matching You will match the words to their definitions. You will find the definitions for the words below on quilzlet. You should also have them on your Quantitative/Qualitative Lab and your Fish Lab.

qualitative observation, quantitative observation, independent variable, dependent variable, constant variables, levels, repeated trials, testable question

Part 2: Applying Vocabulary You will be asked to provide examples of two of the words above and a reason for why that example is a good example of that word in a full sentence.

Practice: Circle the correct type of observation and explain why that example is quantitative or qualitative.

A. Recording the cm of rain in the month of October. This is a (quantitative, qualitative) observation because __
_____

B. Describing the way a chimpanzee behaves when given bananas. This is a (quantitative, qualitative) observation because _____

C. Recording the heart rate of students after gym class. This is a (quantitative, qualitative) observation because
_____

D. Describing the colors of the leaves on a tree each week in the fall. This is a (quantitative, qualitative) observation because _____

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Part 3: Identifying Variables *(This is EXACTLY as you will see it on the quiz with a DIFFERENT scenario)*
Directions: Read the scenario below. Complete the IDD using the information provided in the scenario. (Refer to the vocab on the other side of the page if you need help remembering what the words mean.) Please notice that each box has a number. Record your answers in the boxes on the paper and in your iPad. Please notice that the box number matches the question number on your iPad.

Scenario: Kindergarten Lunch Time
Justin became interested in insulation while his parent's new house was being built. He decided to determine which insulation transferred the least heat. He filled each of 5 jars half-full with water. He sealed each jar with a plastic lid. Then he wrapped each jar with a different kind of insulation. He put the jars outside in the direct sunlight. Later, He measured the temperature of the water in each jar.

11. What is the Independent Variable?
12, 13, 14. How is the Independent Variable being changed?
15, 16, 17. How many trials of each level of the Independent Variable are being performed?
18. What is the Dependent Variable?
19. What is ONE constant/controlled variable in this experiment?

Independent Variable: 11			
Levels	12	13	14
Trials	15	16	17
Dependent Variable: 18			
Constant/Controlled Variable: 19			

20. What is the Testable Question for this experiment?

_____

_____

STUDY GUIDE: You may create a "Study Guide" to help you prepare for the quiz. You should use it to study and you can bring it to the quiz for +5. You may not use it on the quiz-you will hand it in at the beginning of the quiz. ***Please make sure your full name and class # are on your study guide-no name=no credit!***