

Name: _____ Date: _____ Period: _____

Experimental Design Quiz 1

Part 1: Label the steps of the scientific method below (1-5) in the order that they occurs. 1 represents what would happen first and 5 represents the last step.

- _____ Form a hypothesis
- _____ Analyze Data/ Draw a conclusion
- _____ Make an observation and pose a question
- _____ Make a prediction
- _____ Design an experiment

Part 2: Fill in the blank using the word bank provided. Words may be used once, more than once or not at all.

Prediction	Scientific Theory	Experimental Group	Qualitative
Controlled	Experiment	Independent Variable	Bias
Control Group	Quantitative	Dependent Variable	Hypothesis

- A. When designing an experiment scientists make a statement that forecasts what would happen if the hypothesis were true this is called the _____. In order to determine this scientists design a(n) _____. If the experiment is _____ it will have a(n) _____ or the group that provides a standard for comparison.
- B. Also, the scientists will have another group called the _____ which has the changed factor or the _____ applied to it. When collecting the data scientist will measure or count how the independent variable responds. The measured or counted variable is called the _____.
- C. During the experimentation the scientist will collect two types of data: _____ or data that is measurable with instruments or _____ which is gathered through your senses.
- D. After all of the data collection, analysis and repeatedly testing scientists may be able to acquire a well-substantiated explanation of some aspect of the natural world called a _____.