Name:_____ Date:_____ Period:_____

Complete the following definitions and questions to the best of your ability. This will help me get a better understanding of how much you know about this vocabulary.

Define each of the following terms:

Hypothesis: is a possible, testable answer to a scientific question or explanation of what scientists observe in nature.

Independent Variable: the variable that is being manipulated by the experimenter. It is the one thing that is changed in an experiment.

Dependent Variable: the variable that is being measured to determine the effect of the independent variable.

Control: the standard for comparison or normal.

Constant: factors that are kept the same between the control group and experimental group.

Bias: Making a judgement based on prior knowledge.

Scenario: In environmental science class students wanted to determine the optimal amount of fertilizer for grass to grow. They set up of five square containers that were the same size and they put 10kg of soil in each one. They placed the containers in a location that would allow them to get the same amount of sunlight. They gave them all the same amount of water each day. For container A they did not add fertilizer. All other containers received fertilizers in the following amounts: Container B (recommended .1g), Container C (.15g), Container D (.2g), Container E (.3g). Students recorded their results for 3 weeks.

Identify the Dependent Variable: Growth of the grass

Identify the Independent Variable: Amount of fertilizer

Control Group: Container A

Constants: square containers, 10kg of soil, location, sunlight, water, time

Write a possible hypothesis for this scenario: The grass growth will be increase given the optimal amount of fertilizer because plant require the nutrients provided by the fertilizer .