Name _____ Period _____ Date _____

Scientific Method Vocabulary Practice

Glossary:

Scientific Method:	a logical and systematic approach to problem solving.
Problem:	a question or difficulty that needs to be solved.
Fact:	a repeatable observation that many people can make.
Hypothesis:	an "educated guess" or possible answer to the problem.
Experiment:	the process of testing a hypothesis to determine if the hypothesis is supported or not supported
Experimental Group:	contains one factor or variable different from the control group
Control Group:	used for comparison to determine if the single variable in the experimental group caused any differences
Variable:	any factor or condition which may affect the outcome of an experiment
Quantitative Observation:	any observation that uses a number from some measurement (45 °C, 123 mm, 654 g. etc.)
Qualitative Observation:	any observation that does not require a number (Blue, windy, smooth, etc.)
Data:	all the facts collected during an experiment (often recorded in data tables, pictures, drawings, or graphs).
Analysis:	looking for patterns, consistencies, or inconsistencies in the data. Interpreting the results of an experiment.
Bias:	an opinion that affects or alters the interpretationof the data. (For example, Personal bias, Cultural bias, Racial bias)
Conclusion:	a summary of what you learned by doing the experiment. Did the data collected support the original hypothesis? What future experiments are needed to strengthen the hypothesis?
Theory:	a hypothesis that has survived repeated testing over many years (The Atomic Theory, The Theory of Evolution)

Use the terms above to complete the following sentences.

1. Hard, soft, heavy, and sharp are all examples of _____ observations:
2. Looking for patterns and interpreting the data is known as _____ .
3. A _____ is any factor like temperature that may affect the results of an experiment.
4. Relativity is a _____ because there is much evidence to support it and it has not been disproven by any experiments over the last 60 years.
5. "The Brassica plant was 12.6 cm tall" is an example of an _____ observation.
6. "Women don't have what it takes to be president." is and example of sexual _____ .
7. The _____ is the part of an experiment used for comparison.
8. The _____ is the part of an experiment that has one variable to be tested.
9. "The solution turned red." is an example of a _____ observation.