Name _____ Date _____ Class _____

Note-taking Worksheet

The Nature of Science

Section 1 Science All Around

A. Scientists are like _____ trying to solve mysteries.

1. Scientists gather information and _____ in their search for answers to questions.
2. A _____ is an educated guess about a possible solution to a mystery.

B. Scientists use a problem-solving procedure called the _____; it includes identifying a problem, gathering information, making hypotheses, testing the hypotheses, analyzing the results, and drawing conclusions.

C. _____ is a process of observing, studying, and thinking about things to gain knowledge to better understand the world.

1. Any attempt to find out _____ and _____ things look and behave the way they do is a performance of science.
2. _____ is the study of Earth and space.

D. Testing, or _____, is an important part of science.

1. _____ are the different factors that can change in an experiment.
   a. An experiment should be designed so that only ___ variable at a time is tested.
   b. The variable that changes, the one being tested in an experiment, is the _____.
   c. **Constants** are variables that _____ change.
   d. A _____ is the variable being measured.
2. A _____ is a standard to which results can be compared; the same experiment done with the same variables, except it omits the _____ variable.
3. For results to be valid or reliable, tests should be repeated _____ times.
4. _____ and recording data and discoveries are important parts of an experiment.
   a. Data and observations must be analyzed to draw _____.
   b. Unexpected _____ may be important and should be recorded, as well.

Meeting Individual Needs