Defining Elements of a Scientific Method

I. Laboratory activities and experiments involve the use of the scientific method. Listed in the left column are the names of parts of this method. The right column contains definitions. Next to each word in the left column, place the letter of the definition that best matches.

1. Conclusion ____	A. What the person performing the activities sees, hears, smells, or tastes.
2. Control____	B. Gathering information about the subject of the activity.
3. Data____	C. Proposed explanation for a problem or observation.
4. Hypothesis____	D. Factor being tested.
5. Objective____	E. Measurements
6. Observation____	F. Results of a laboratory activity.
7. Research____	G. Problem that the laboratory activity is designed to solve.
8. Variable____	H. Experiment with the variable left out.

II. Steps in the Scientific Method

1. Identify the problem or state the _____.
2. Do _____ and gather _____.
3. Form a _____.
4. Perform experiments- parts of the experiment:
    a. _____
    b. _____
    c. _____
    d. _____
5. Form a _____.
6. _____.

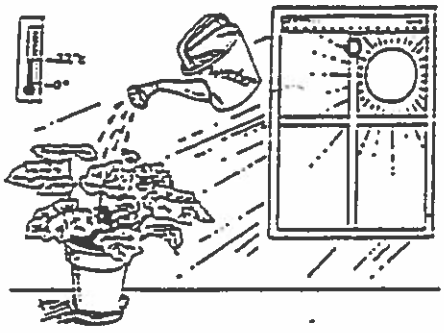
KEY CONCEPTS

The basic steps in the ***scientific method*** are:

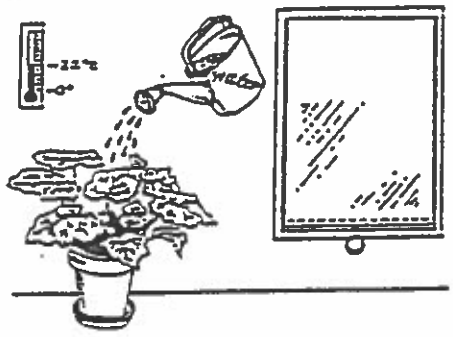
*Stating the problem
*Gathering information on the problem
*Forming a hypothesis
*Performing experiments tom test the hypothesis
*Recording and analyzing data
*Stating the conclusion
*Repeating the work

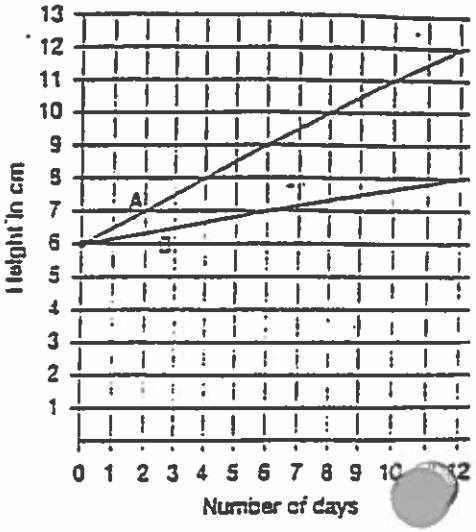
The pictures below show a typical scientific experiment. Look at the pictures carefully, then answer the questions.

A.



B.





1. What is the variable in this experiment? How can you tell?

2. Which experimental setup is the control? Why?

3. Identify the data for this experiment. How is it displayed?

4. State a possible hypothesis for this experiment.