PreLab: questions to answer before doing the lab

Note: This is the handout version, which only contains the PreLab questions. For more help or additional information, you'll need to go to the on-line version of PreLab at http://labwrite.ncsu.edu where you can view additional materials on-line or obtain a full printable version under PreLab SelfGuide.

First, carefully read the description of the lab:

In most lab classes, you will have a lab manual that contains background for the lab and directions for doing the lab procedure. There may also be handouts or other materials you have access to. Read it all. And don't just skim it. In fact, you may need to read it more than once to get a good grasp of it.

Next, answer the following questions about the lab:

1. What scientific concept(s) is this lab about? Identify the scientific concept(s) (principle, theory, law) of the lab and write what you know about the concept(s) from the lab manual, textbook, class notes, handouts, etc.

2. What are the objectives for this lab? Describe the specific actions you are being asked to perform in the lab, such as measure something, analyze something, test something, etc.
3. What is the overall purpose of the lab? Briefly describe how what you are being asked to do in the lab (the objectives) will help you learn about the lab's scientific concept(s). In other words, show the link between your response to question #2 (what you will do in the lab) to your response to question #1 (what you are supposed to be learning about by doing the lab).

4. What is your hypothesis for the lab experiment? First, identify the variables in the experiment. Then state your hypothesis--the relationship or interaction among the variables, the outcome of the experiment you anticipate. Your hypothesis may be stated in 1-2 sentences or sketched out as a graph.

5. What reasoning did you use to arrive at your hypothesis? Explain your hypothesis using the scientific concept of this lab to show the reasoning behind your prediction.