Fundamentals of Studying from Science Labs

General Purpose: What you learn by doing is more important than what you are actually making.

1. Ask yourself questions: “What would happen if?” “What’s wrong with?”
2. Research: Use your own knowledge as well as other sources.
3. Formulate a Hypothesis: “This will happen if…” “This is what’s wrong.”
4. Experiment: Try out the hypothesis; test the ideas; take notes.
5. Check the results: “Is it fixed?” “Did it happen?”
6. Repeat: To be sure of results; “Will it happen again?”

Every Lab has a Specific goal and also four general objectives:

1. A chance to use the tools of the trade
2. To learn basic procedures involved
3. To get the feel of the topic
4. To practice developing and testing a hypothesis

How to make the most of your labs

The night before:

1. Survey text material relating to the lab
2. Identify the specific goal
3. Think about the equipment used
4. Read directions (if available)
5. Write down any questions you may have
6. Study the visual aids – be familiar with the subject
7. Summarize in your own words what you will be doing
8. Think – how does this relate to class
9. Hypothesize – what do you think will happen?

Just prior to the lab:

Review your summary and hypothesis
Remind yourself of your specific goal
Remember the four objectives
In the lab:

- Approach the subject logically
- Work carefully and safely
- Think about what you are doing and why
- Take accurate notes to ensure validity
- Fill out all required paperwork
- Re-read your hypothesis – was it accurate?

After the lab:

- Think about what you have accomplished – how can you apply it in the future?\(^1\)

\(^1\) Developed by LLCC Learning Lab, Springfield, Illinois.