

Lab Notebook

A lab notebook is an essential tool used in scientific research. It is used to document your primary lab work, including your hypotheses, data, and interpretations. One reason that researchers keep a lab notebook is that if you discover something and want to apply for a patent, a properly kept lab notebook is required for approval. For chemistry class, each student will keep a lab notebook in which all of the pre-activity questions and data are recorded. On the first page of your lab notebook, make a table of contents. Every time you do an experiment you can simply add to the table of contents

The lab notebook has carbonless duplicate pages so that you end up with two copies. The original copies stay attached in your notebook and the duplicate copies get turned in to your teacher. For each lab, you will use one page for the pre-activity questions and a separate page for data. The pre-activity questions will be turned in at the start of the lab session (before you do the experiment) and the data will be collected at the end of the lab session. At the top of each page, fill in the spaces for the title, date, your name and your partner's name.

Before the Lab Session

1. Print the lab handout from the www.nshs-science.net website. You are expected to print out your own copy of the lab and bring it to class. You may access and print the labs from home or school. There will a hard copy of the labs on reserve in the library that you may photocopy. Please do NOT print labs from the library computers.
2. Read the whole lab handout, except for the post-activity questions. The goal of reading the lab handout **before you get to class** is to be sure that you are prepared to do the experiment safely, efficiently, and with a solid understanding of what you are trying to investigate. As you read the procedures, note what measurements need to be made and recorded. This information will be used later to design your data table.
3. Answer the pre-activity questions in your lab notebook. Answers should be written in complete sentences. When calculations are required, show your work and round your final answer to the proper number of significant figures. At the beginning of class, turn in the duplicate copy of your pre-activity questions and keep the original in your lab notebook. Pre-activity questions turned in after the lab session has started will be considered late.
4. On a separate page from your pre-activity questions, write the purpose of the lab.
5. On the same page as your purpose, make a data table. You may need to re-read the procedures to help you determine what should go in the data table. Some labs may have an example data table already done for you.

During the Lab Session

1. Be sure to bring your safety goggles, lab handout, lab notebook, and a pen. Some labs will also require a calculator.
2. Record all measured data and detailed observations in your lab notebook. Use black or blue ink only. Do NOT use pencils or erasable pens. If you make a mistake while recording, just cross out the mistake with one thin line. Do not erase or black out or white out. Do not use scratch paper. Do not rip out any of the original pages. (The pages are numbered.) The reason

for not eliminating any of your work is that you might discover later that you need that information or that what you thought was a mistake was really correct. Your work does not need to look perfect. However, your work should be legible and organized enough so that one of your peers could read and follow your work easily.

3. When you have finished collecting data, have your partner sign and date the bottom of your data page. Then do the same for your partner. Signing the data page indicates that you are a witness to the fact that what is recorded on the page is actually from the experiment conducted by that person.

4. At the end of each lab session, turn in the duplicate copy of your data to your teacher and keep the original copy in your lab notebook.

After the Lab Session

1. Post-activity questions should be answered as directed by your teacher either on the available report forms (print them out yourself from the www.nshs-science.net website) or on a separate sheet of paper. Post-activity questions may be started in class and then finished for homework.

2. Your graded post-activity questions will be returned to you together with your previously turned in copies of your pre-activity questions and data. Keep these papers organized in a binder.

Personal Conduct

Labs are a fun and interesting way to learn chemistry, but must be done responsibly. Safety regulations must be observed at all times. A student violating these rules will have points deducted from his/her lab grade and may be ejected from the lab session.

Each term you will be assigned a lab partner and a lab station. You and your partner are responsible for maintaining your lab station. At the beginning and end of each lab session you should go through the lab station checklist to make sure that your station is complete and in good condition. Points will be deducted from your grade if you do not maintain your lab station properly. The lab area is shared by many classes. Leave the lab station for the next person as you would like it left for you.