

Keeping a Laboratory Notebook

Getting started

1. On the cover or inside cover, write your name, FYSE 1329: Caveman Chemistry, and your email
2. On the inside cover (or first page) of your notebook, write **Table of Contents**
3. Underneath that, write “Ceramics Project” on one line, 1/3 of the page lower down, write “Bronze Project”, and another 1/3 of the page lower, write “S/P Project”
4. Leave a few pages blank before beginning your project pages

General rules

1. **Write in pen**
2. When the book is open the **date** and the **project name** should be visible at the top of one (or both, if the pages are for different dates/projects) of the pages
3. Every page should be numbered consecutively
4. There should not be any blank pages.
5. Write on each page chronologically – do not leave blank pages for later use and come back to them

Before coming to class AT THE START of each project

1. Write the **project title**, a **2-3 sentence purpose**, and the **general approach** to the project.
2. The general approach can include a bulleted list what will be performed on each of the lab-days for the project (not details of each step, but an overview). For example, for the ceramic project “Day 1: make crucible, and let dry for at least 5 hours”.

Before coming to class EACH DAY of a project

1. Write the specific tasks to be completed that day (e.g., “Crucible Day 2: refine/smooth the inside of the crucible using the silver spoons, metal “kidneys”, or other stones. Make sure that the dimple at the bottom is good. Allow the crucible to dry at least 5 hours”)
2. Print out, read, and tape any required MSDS’s (Material Safety Data Sheets) (described in your textbook) directly into your notebook. Note any precautions necessary when working with the chemicals to be used that day (e.g., goggles, gloves).
3. Note any calculations or measurements to be made that day.
4. Note any detailed reminders you will need (e.g., dimensions of the crucible, page numbers from the text on how to do a calculation, a photo to compare your crucible to, etc.)

During class EACH DAY of a project

1. Write specific methods used, particularly changes you made relative to what the textbook suggested.
2. Record your observations on what worked, what didn’t, how things turned out
3. Record any measurements, write out any calculations (show all work, not just answers!)
4. Record any results (photos of final products, masses, % yields, etc.)
5. Note the “next steps” on the project (e.g., “let dry until next class, then fire in kiln!”)
6. When you finished with your notebook for the day, update your table of contents. For example, at the end of your first day in lab, under the Ceramics Project heading, you

might write “Day 1: making crucible” and further over to the right “p. 3-6”. Each day in lab, you will add an entry to your Table of Contents.

During class AT THE END of the project

1. Write a summary and discussion/conclusion paragraph/page in your notebook. Some examples of appropriate points of discussion
 - a. Compare your experiment/results with your expectations, with what the book suggested should happen, with what other students achieved.
 - b. Suggest improvements to the overall experimental procedure
 - c. Explain what you learned by completing the project

Before leaving class each day, ask yourself
“Is my notebook (&TOC) complete and up-to-date?”