

LABORATORY NOTEBOOK PROCEDURES

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http://biology.clc.uc.edu/fankhauser/Labs/Keeping_a_Notebook/Notebook_Procedure.htm

Book: Use graph-lined, sewn composition notebooks (10" x 7 7/8") so that you make a permanent record of your experiments and results. (Avoid glued books.)

Pen: Use a permanent black pen with a fine point, such as a Pilot Precise Rolling Ball V5 (my favorite), Tombow Roll Pen, Jr©, or Uni-ball Vision Micro. These are dark black, permanent, and xerox very well. A pencil or water soluble felt tipped pen are not acceptable. Ball point pens have ink which will dissolve under organic solvents.

- 1) Mount the **intact LAB SCHEDULE**, on the inside of the front cover. Number the facing page *i* and label it **TABLE OF CONTENTS: LABORATORY HANDOUT** (mount colored first handout page here).
- 2) Number the next 3 pages with Roman numerals "*ii*" to "*iv*."
- 3) Label pages *ii*, and *iii*: **MY TABLE OF CONTENTS II, and III.**
- 4) Then number subsequent right hand pages at the **top right** with odd arabic numbers: 1, 3, 5, etc.
- 5) Title pages: p.1: **SLIDE LIST**. Inside of the back cover: "**MY GRADE SLIPS.**" (grade slips 1 pt each.)
- 6) Title the back (last) facing page: "**NEW WORDSTEMS.**" Keep a dated running list of *new* wordstems.
- 7) Draw **guide lines** along the edge of your closed book at lines 1, 3, 6 and 9.
- 8) **Date every page** in the upper left hand corner as you begin entries on that page.
- 9) **Title every page** IN CAPITALS with a specific *focused* title between lines 1 & 3.
- 10) **Begin the entries below line 9.** Enter all data *directly* into the lab book.
- 11) Use a **fresh page for each experiment**. Neatness is of secondary importance, but leave adequate space for ease of future use. *Do not tear out any pages.* If you make a mistake, draw a single line through it.
- 12) **Cross reference** pages of related material on line 6 (three spaces below the title).
- 13) **State the nature of each cross reference:** protocol, data, graph, illustration, conclusion, etc.
- 14) **Permanently mount ALL handouts** with clear contact paper. Keep all handouts intact, including header. **Permanently mount sequential grade slips inside back cover.** (See #5)
- 15) **Use any excuse for an illustration**, since it displays information or data in a manner comprehensible at a glance. (See *Notebook Illustrations.*) To prevent ink from bleeding through, we suggest that you place illustrations on the R page, and handouts on the L (or *vice versa* for lefties).
- 16) For **dissections**, illustrate: 1) cuts made, 2) spatial & functional relations of organs, label thoroughly.
- 17) For **microscopic specimens**, illustrate characteristic views to fill the page. Include all features observed or mentioned in the protocol and/or in Lab. Resolve them clearly and label all details. The illustration **title** goes above, **magnification** of the view at the lower right. The **legend** is below, indicating the source, treatment and staining procedure used. If appropriate, draw a second illustration clarify the first.
- 18) For each new piece of **apparatus**: illustrate, label and explain the use of all features you used.
- 19) **Color** may be added *after* making a line drawing with black pen. Use of *appropriate* color in illustrations can make them more meaningful as well as attractive.
- 20) Follow protocol for drawing graphs: title your **graphs** precisely, cross reference to the page containing the original data. Label coordinates, note significant phases or effects observed, especially according to time or changing conditions. Describe conditions under which experiment was performed.
- 21) **Indent new protocols or recipes**, leaving space above and below for clarity. Note in detail any changes made in the original protocol, difficulties encountered, or future cautions. (There are often changes...)
- 22) **Draw conclusions**, note the value of the exercise and take home lessons. If appropriate, make **suggestions** for improvement of the experiment. Include in your conclusions not only the "processed" data, but points which could be examined more closely in future experiments and questions which may have arisen as a result of the experiment. Complaints earn less credit than constructive suggestions.

Compare these instructions with the *Sample Notebook Grade Sheets* which you have received. Note that points are awarded according to the completeness with which you have followed these instructions. Early effort applied to learning correct notebook procedure will pay dividends when your notebook is graded. (Lab work, as evidenced by your notebook comprises approximately 30% of your grade for the course.)