Lab Notebooks

"If you have built a perfect demonstration do not remove all traces of the scaffolding by which you have raised it." - Clark Maxwell

• Why Keep a Lab Notebook:
  – To give yourself a central, physical place to record your data, to note outcomes, and paste graphs that show results. Keeping these items in one place keeps you productive.
  – Encourages sound thinking
  – Let’s you to talk to yourself ask questions, record thoughts, and speculate on results.
  – Provide information to someone interested in continuing your work. If you're doing important work and die an early, gruesome death, your colleagues might want to pick it up!

• What to use:
  – A stitched binding, quadrille-ruled
  – No spiral-bound notebooks. It’s too tempting to rip out pages in moments of frustration or when you make silly mistakes.
  – Use a ball-point pen, never a pencil.
  – Ring binders and stacks of loose paper are unacceptable.

• What to include:
  – All calculations annotated such that numbers are fully explained and are interpret-able by others. Remember units.
  – Detail all mistakes and problems so that you can fully explain odd results.
  – Do not delete, scratch out, or erase errors.

• General guidelines:
  – Number the pages
  – Never remove a page.
  – Clearly title the beginning of each lab experiment.
  – Attach printouts and plots as needed.
  – If you make a mistake, draw a thin line through the word or number rather than obliterating the entry with a blob of ink. You might decide later that your original entry was actually the correct one, and you’ll be glad you can still read it.
– Write legibly. Your notebook doesn’t have to be a work of art but it should be easily readable by another person of average intelligence.
– Provide the date of your work.
– If it has a scrapbook feel, that’s what you want.
– Notes are written while in the lab setting, not afterwards.
– Should read like a diary, not a newspaper article.
– A good test of your lab notebook: could someone else, with an equivalent technical background to your own, use your notebook to repeat your work, and obtain the same results?
– Could you come back six months later, read your notes, and make sense of them?

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