Writing in the Sciences Study Sheet

Goals for this Study Sheet
By the end of this sheet, you should be able to discern the language you must use, based on the audience and type of assignment you need to complete.

Things to Remember
When writing a paper for the sciences, remember to keep your audience in mind. You are writing to professors or peers, people who are already well-versed or looking to investigate the subject you are concentrating on. Keep your language and information geared toward your audience and trust your reader to know the subject.

Scientific-oriented writing should be concise above all else. What you should look for in your word choice is accuracy and a lack of flowery language. Do not mince words – if the word directly applies to your essay/report, then use it. Scientific writing is less about making the paper sound good, and more about reporting with as much precision as possible. Rather than describing events in an overview, try to describe as closely as possible, including times and measurements. Make sure that what you are writing is presented with objectivity. In this instance, personal opinion does not belong in your work.

Types of Scientific Writing

Literary Review
This is a review of an article that should address a specific problem in the field. Clearly state your purpose in the introduction, abstract, and thesis, specifically.

Experimental Reports
These are reports of empirical research conducted by authors. This basically details the events and results of your experiment.

From the Writing Center
at the Academic Resource Center
John Tyler Community College
Lab Reports
Similar to experimental reports, though, these tend to be laden with charts.

Research Proposals
An appeal to others that your area of research is worthwhile enough for funding, attention, and backing.

Essays and Response Papers
Though these are less dry, you must still emphasize concision in your writing. Be firm in your stance and do your research thoroughly.

Writing Style Tips and Tools
Active Voice in Reports
Eliminate any extraneous words from your writing. For instance: “as a matter of fact” is a useless phrase; your work is already being presented as factual or theoretical. Use “now” and “then” rather than “as far as we know” or “after that, ....” This is an important aspect of report writing that people often underestimate. Replace soft words with stronger ones. Like “Instead of saying this, say....” I used “Replace....” Notice the difference?

Passive Voice in Response Essays and Reviews
The passive voice is usually utilized when the performer is inconsequential, the recipient of the action is the performer, or the performer is not easily identified. For example, “The blood samples were placed in the centrifuge....” Here, the identity of the person who placed the blood samples in the machine does not matter so much as the act itself. Records of who performed what action would be in a report.

Statistics and Data
You’ll want to use these but be wary of over-reliance on them. You won’t be able to pad your report/essay length with these and it is important to remember you still want your
work to be easy to read. Make sure your information is compiled well, relevant, and pertinent.

**When Quoting**

Usually, this is in reference to refuting a point or supporting your evidence with reports from former research studies. Drawing from more qualified professionals in your field can be helpful while showing you did your research.

**Tenses**

Generally, tenses when writing academically lean toward the present. However, while writing in the sciences you should use the past tense concerning experiments, events, studies, and reports others have written unless the research is ongoing presently.

**Additional Resources Sources**

https://writingcenter.unc.edu/tips-and-tools/sciences/

https://www.hamilton.edu/academics/centers/writing/writing-resources/writing-in-the-sciences

http://www.sciencemag.org/careers/2012/03/how-write-scientist