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| **Chemistry Lab Report Guidelines**  **Updated as of 9/21/11** |

**• Format**

 12pt Arial or Times New Roman font ONLY

 1.5 spaced

 Bold section headings

 8.5”x11” white paper

 1” margins on all sides

 Abstract has 2” margins on each side and is single spaced.

 Stapled in following order:

o Title page

o Lab report

o Carbon Copy pages used during lab

o Carbon Copy pages used for discussion questions

 THIRD PERSON, PAST TENSE, PASSIVE VOICE!!!!

o We know you wrote it…your name is on the front…use third person

o You already finished the lab before you did your report! Use past tense!

o I know your English teachers don’t like passive voice…but it is appropriate for lab reports!

 Active voice: The hot plate stirred the reaction for three minutes.

 Passive voice: The reaction was stirred by the hot plate for three minutes

• **Title Page**

 It gets its own page!

 Title of lab

 Abstract (see below)

 Group members and how they contributed

 Date

 Class and period

• **Abstract**

 Goes on Title page (2” margins). Do not center on the page

 *The following is to be articulated concisely in no more than 3-4 sentences in the order below* (see rubric)

 What was the purpose of the experiment? The question or statement. Do not copy from lab handout!

 What you found (results…The silver alloy beads were found to contain X% of silver)

 How your results were determined (Brief! Specific names of lab techniques if applicable)

 Report accepted value (if applicable) and percent error

 Conclusions made (if applicable and instructed by teacher/lab)

**• Background**

 DO NOT copy info from lab worksheet!

 Summary/explanation of the important chemistry topics covered in lab

 Explain how the topics relate directly to the lab

o What will your lab be discovering/testing related to the topics

o What is your experimental question/variables

 Include relevant chemistry vocabulary

 Relevant Chemical equation(s)

o Including balancing and states

o Each Equation should be numbered to make referencing easier

 Hypothesis if applicable

o If \_\_\_\_\_\_, then \_\_\_\_\_, BECAUSE \_\_\_\_\_\_. Everyone forgets the BECAUSE part!

o Relate it back to the topics covered

**• Materials**

 List of materials used in lab

 Include drawings of the set up when appropriate!

o Label and color drawings!

**• Procedures**

 Explain steps of the lab IN YOUR OWN WORDS

 Must use complete sentences (diagrams/pictures on procedural steps okay w/ captions)

 Steps should be detailed enough that someone could reproduce your experiment

 Include warnings about safety or trouble spots in the lab where things might go wrong.

**• Observations/Data**

 Qualitative and quantitative! Must have both

 Lab notebook paper only with data tables graphs made/collected DURING the lab

* Professional appearing (boxes outlined, title – not just “data table”)

o Clear, large, not squished! – use one whole page for data

o Sig figs

o Label graphs and tables

o Give everything a descriptive title

o Units

o Black or blue **INK ONLY**

**• Data Analysis**

 Include table and graph (labeled correctly) of anything you calculated, manipulated or plotted AFTER lab

 Explain data that you collected

 Mention any errors and how they affect your data analysis

 Include percent errors if applicable

 Include one sample calculation for each type of calculation performed

o Include equations, reactions, units, work, etc.

o Define symbols/variables

 Include a couple sentences explaining what graphs/tables show

 You may be graded on the accuracy of your lab data and whether your calculations are correct or not.

**• Discussion Questions**

 Answers to the lab questions or statements or calculation with work.

 Each question should be numbered and answered in complete sentences

 Restate the question in your answer, don’t copy the question!

 Will sometimes be done on Carbon Copy paper individually. *Still include this section in the report, but simply say “Refer to Carbon Copy pages at the end of the report”*

**• Conclusion**

 Complete sentences and paragraph form.

 Report your final results

 Include accepted value and percent error if applicable

 Explain why it turned out the way it did

o 3+ different Errors? – How those errors affect the result

o Limits in lab design?

 Relate findings back to basic principles of chemistry

 What further experiments might you do to continue studying this?

 How does it relate to real life (if applicable)?

 How could you make improvements to the lab?

**• References**

 List all sources, e.g. lab manual, textbook, course packet, etc. using MLA format