

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period: \_\_\_\_\_

# Chemistry 30

## Lab Report Outline

### Structure

For most labs, you will be given:

1. Purpose
2. List of materials
3. Procedure
4. Pre-lab questions, which must be completed before the lab can be conducted
  - a. Sample calculations
  - b. Safety questions

The pre-lab will be stamped and collected, then returned to you with your marked lab.

For some labs, you may be given a purpose and a list of available materials and will be responsible for designing your own procedure. In these cases, the procedure must be completed along with the other pre-lab questions.

### Report Format

Reports should be typed (with the exception of any diagrams or calculations) or neatly written. If typing, please use a readable, size-11 font.

Your report needs to be in three sections:

1. Results
  - a. Data table(s), neatly written and labeled, including units and proper significant digits for measurements
  - b. Calculations, graphs or data representations
2. Discussion (1-2 pages, typed)

Not all of these options will always be applicable. Use your best judgment when completing your lab.

  - a. Determine accuracy or precision of results using percent error, percent yield or percent difference (depending on which is applicable)
  - b. Analyze your data to determine trends, make connections with what you have already learned and come to a conclusion, apply the concepts to "real life"
  - c. Discuss multiple sources of error
  - d. Discuss improvements, recommendations or next steps
3. Conclusion (2-3 sentences)
  - a. Restate your results
  - b. Summarize the significance of the results with respect to the purpose of the lab

## Evaluation

### Pre-Lab Report

Criteria	Excellent /5	Very Good /4	Mediocre /3	Poor /2	Missing /0
Calculations are done correctly, using correct units and reasonable significant digits.					
Strong understanding of safety procedures for handling lab equipment and chemicals substances.					

### Lab Report

Criteria	Excellent /5	Very Good /4	Mediocre /3	Poor /2	Missing /0
Data is recorded in a table or chart, clearly and accurately, with correct units and reasonable significant digits.					
Calculations are done correctly, using correct units and reasonable significant digits.					
Calculation of percent error/yield/difference is done correctly, using correct units and reasonable significant digits.					
Data is analyzed to come to a conclusion that connects with previously-learned chemistry concepts or that can be applied to "real life".					
Data analysis is clear, thorough and accurate and is expressed using grade-level language.					
Several sources of error are given and are reasonable, relevant and explained in appropriate detail.					
Recommendations are given for reasonable improvements to the lab and/or further testing that could be done.					
Conclusion succinctly restates purpose, results and significance of findings.					