

Chemistry 11/12 Laboratory Report instructions

Date: _____

TITLE
(centered and underlined)

Name: _____

Partner(s): _____

Pd: _____

OBJECTIVES:

1. Objectives are numbered statements describing the intended learning outcomes of the lab.

PROCEDURE:

The procedure is to be in the form of a **FLOW CHART** with a series of boxes which point progressively from one step to the next....that starts and stops with an action in a circle.

DATA AND OBSERVATIONS:

1. Observations are recorded without INTERPRETATION
2. Data and observations are recorded as they occur
3. You will usually use the suggested table given in your lab text or handout
4. Be sure to include enough space to record all data and observations in the data table.

ANALYSIS:

The data is acted upon using your powers of interpretation.

Calculations are performed to satisfy the previously stated objectives

The calculation method may be obtained from three possible sources:

- a. "Questions" or "Questions and Calculations" from the lab text
- b. Calculations given to you by your teacher

Here are some sample ANALYSIS calculations:

1. Mass of an object:

Combined mass – mass of container = mass of object

$$97.46 \text{ g} - 95.34 \text{ g} = 2.12 \text{ g}$$

2. Change in the volume of a substance:

Final volume – initial volume = volume used

$$10.7 \text{ mL} - 5.3 \text{ mL} = 5.4 \text{ mL}$$

3. Density of the object:

Mass of object ÷ Volume of object = density of object

$$2.12 \text{ g} \div 5.4 \text{ mL} = 0.39 \text{ g/mL}$$

NOTICE THAT THE FORMULAS SHOWING HOW THE ANSWER IS OBTAINED IS GIVEN. THE UNITS HAVE BEEN INCLUDED IN THE QUESTION AS WELL AS IN THE ANSWER. THE ANSWER IS GIVEN IN THE CORRECT NUMBER OF SIGNIFICANT DIGITS.

DISCUSSION:

1. Answer "Follow- up Questions" taken from your Lab text (if told to do so).
2. Answer any other questions given to you by your teacher.

SOURCES OF ERROR:

1. Indicate how uncontrollable events can effect your results by at least 2%
LIST ONLY FOR THE EQUIPMENT USED IN THE PROCEDURE

FOR EXAMPLE:

Centigram Balance	± 0.01 g
Graduated Cylinder, 10 mL	± 0.1 mL
Graduated Cylinder, 25 mL	± 0.5 mL
Graduated Cylinder, 100 mL	± 1 mL
Beaker, 100 mL	± 5 mL
Beaker, 250 mL	± 10 mL
Beaker, 600 mL	± 20 mL

2. **Do NOT** included mistakes made by yourself or your partner. If you know that you have made a mistake, you must go back and correct it.

CONCLUSION:

1. State the most important **QUANTITATIVE RESULTS** taken from your ANALYSIS (if the lab involved numerical data)
2. Include **a brief paragraph** that answers the objectives of the lab.
3. A lab report with no major errors will obtain a grade of 9/10. To obtain a perfect score, include a creative idea in the summary that shows how your lab results relate to every-day life.