Chemistry 11/12 Laboratory Report instructions

Date:_____   Name:_____
                        TITLE   Partner(s):_____
                (centered and underlined)   Pd:_____

OBJECTIVES:
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. It starts and stops with an action in a circle.

DATA AND OBSERVATIONS:
1. Data is entered into a DATA TABLE that is either computer generated or drawn with a ruler
2. Observations are recorded without INTERPRETATION
3. Data and observations are recorded as they occur
4. You will usually use the suggested table given in your lab text or handout
5. 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:
       97.46 g - 95.34 g = 2.12 g

2. Change in the volume of a substance:
       10.7 mL - 5.3 mL = 5.4 mL

3. Density of the object:
       2.12 g ÷ 5.4 mL = 0.39 g/mL

NOTICE THAT THE MATHEMATICS SHOWING HOW THE ANSWER THAT IS ENTERED INTO THE DATA TABLE 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. Or answer any other "questions" given to you by your teacher.

SOURCES OF ERROR:

1. Indicate how uncontrollable events can affect your results by at least 2%
YOU MUST LIST FOLLOWING ERRORS FOR THE EQUIPMENT USED IN GATHERING
DATA DURING THE EXPERIMENT

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
50 mL Burette	± 0.1 mL
10 mL Pipet	±0.01 mL
Thermometer	± 1 $^\circ$C

2. **Do NOT** include 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 19/20. To obtain a perfect score, include a *creative idea* in the summary that shows how your lab results relate to every-day life.