LAB REPORT FORMAT RUBRIC – Toombs Senior Chemistry

	1 Shows an attempt, but may be incorrectly done	2 Almost meets all requirements of this section	3 Meets all requirements of this section	4 Exemplary – should be used as an example for others
-Includes all **SECTION** headings in correct **ORDER** & proper **HEADER**				
PURPOSE clearly stated				
MATERIALS comprehensive list				
PROCEDURE Concise yet detailed. Past tense. Passive voice.				
OBSERVATIONS Descriptive details. *Before, During, After*				
DATA TABLES All numerical info reported. Uncertainties, Units, Sig Figs.				
GRAPHS Follows Graphing outline criteria.				
CALCULATIONS Work clearly shown; demonstrates understanding.				
QUESTIONS Full sentences. Thorough answers. Demonstrates ***your own*** understanding.				
DISCUSSION SECTION:				
• **Sources of Error** <u>For each error</u>*:* States the Source of Error. How exactly the error affects the results, (both numerical and observations). Suggests a way to overcome the issue.				
• **Analysis of Values** Mathematical analysis (% error or % deviation) A statement indicating the meaning of this % value with respect to the results and conclusion.				
• **Relevant Theory** Explains the terminology and concepts related to this experiment. Connects the terms together in a cohesive essay-type format. Demonstrates complete understanding of the context and relevance of this experiment.				
CONCLUSION A brief statement that answers the purpose. Do not repeat the DISCUSSION.				

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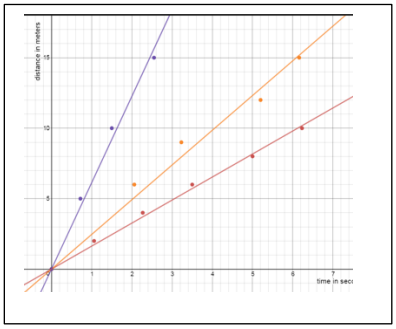
Graphing checklist: (RUBRIC)

- ✓ Use the full page – No data points plotted outside of the grid of the graph paper; Do not make graph too small

- ✓ Use suitable scale (to maximize graph without compromising reliability of plotting points)

- ✓ Draw the **best fit line**
- ✓ make a key box - use colours or different shapes for data points



- ✓ Label axes with the words written *normally* and units and uncertainties included
- ✓ Independent variable on x axis; Dependent variable on y axis

- ✓ Clear Title (eg. Temperature Change in an Exothermic Reaction);
  Additional subtitle gives the y vs. x *Example:* Temperature ($^oC \pm 0.1\ ^oC$) vs. Time (s ± 0.5 s)

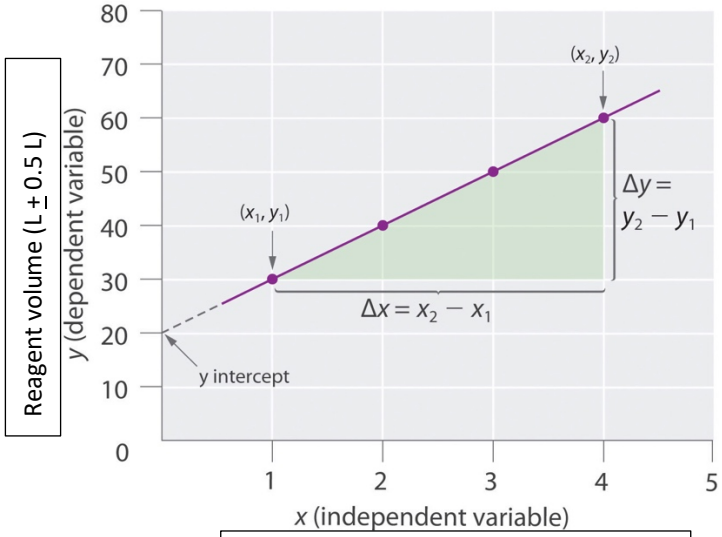
- ✓ Calculations are clearly demonstrated
- ✓ Units included for all values, including in calculations

- ✓ First and Last name clearly written

Example: Your Name

TITLE: **Amount of Solute in a Chemical Solution**

Subtitle: Reagent volume (L ± 0.5 L) vs. Analyte Concentration (g/L ± 0.01 g/L)



Analyte Concentration (g/L ± 0.01 g/L)

$$\text{Slope} = \frac{\Delta y}{\Delta x}$$

$$\text{Slope} = \frac{60.0 - 30.0\ \text{L}}{4.00 - 1.00\ \text{g/L}}$$

$$\text{Slope} = \frac{30.0\ \text{L}}{3.00\ \text{g/L}}$$

$$\text{Slope} = 10.0\ \text{g}$$

Proper Sig figs and Units included.