- **Title**: **The Effect of** _____ **on** _____
  (the IV) (the DV)

- **Question**: **How will** _____ **affect** _____?
  (the IV) (the DV)

- **(SMRT) Hypothesis**:
  If (describe the change of the IV)

  _____

  then (describe the change in the DV)

  _____

  because (use reasoning from prior knowledge and/or research).

  _____

- **Materials** (with quantities)

  _____

  _____

- **Procedure**:

1. _____

2. _____

3. _____

- **Data**:
  1. **Table(s)** show individual and larger sample data with:
     -Title(s)
     -Units of measure ( )
     -Numbers (including averages) rounded to the nearest tenth

  2. **Graph** shows individual and larger sample data with:

- ○ X axis Label
  - ○ (Units of measure)
  - ○ Constant scale
- ○ Y axis Label
  - ○ (Units of measure)
  - ○ Constant scale
- ○ Points connected with line **or** bar(s)
- ○ Title (includes information from both axes labels)
- ○ Key (or labels) identify all lines or bars

- **Conclusion**:

1. What was the purpose of the lab?	
2. What was your hypothesis?	3. Was your hypothesis supported?
4. Evidence: (What observations/data supports or disproves your hypothesis?) *Use **specific numbers** from individual and group data.	5. Scientific Reasoning: (Why do you think this happened based on prior knowledge and /or research?)

- **Analysis**:
  1. How do you know that your data is reliable?

  2. Why is it important to control variables? How did you do this?

  3. What are some possible sources of error? Explain.

  4. How could the data or ideas from this investigation be used in future investigations?
     -If you could redo this experiment, what would you do differently? Explain.
     -What is a similar experiment that you could do? Explain how and why you would do this?

Lab Report Self-Assessment Name: _____

	Self-Assess
Title: - The title is written in proper format *(The Effect of the IV on the DV)*	
Question: - The question is written in proper format *(How does the IV affect the DV?)*	
(SMRT) Hypothesis: -The hypothesis is written in proper format (*If…then…because…)*	
-Specific: The hypothesis states specifically what the student thinks will happen. (Use words like *increase* or *decrease*. Avoid the word *change*.)	
-Measurable: The hypothesis states how the change in one variable will affect the other in terms of measure. (Example: If _____ *increases*, then _____ will *decrease*.)	
-Reasoning: The hypothesis includes reasoning that is based on prior knowledge and/or research.	
-Testable: The hypothesis can be tested and is worded in a way that the reader knows what test will be performed.	
Materials: -Materials are listed and include quantities	
Procedure: -The steps of the experiment are numbered and detailed	
Data Table(s): Show individual and larger sample data with: -A title is on top of the table that describes what the data is about	
-Units of measure are included ( )	
-Numbers (including averages) are rounded to the nearest tenth	
The Graph shows individual and larger sample data with: - The x and y axis are both correctly labeled (with units of measure)	
-Units follow a constant scale	
-Bars/lines represent the correct values	
-Title (includes information from both axes labels)	
-Key (or labels) identify all lines or bars	
Draw Conclusions: -Explains the purpose of the lab	
-Includes the hypothesis and explains if the hypothesis is supported	
- Includes evidence (observations/ specific data**)** supports or disproves the hypothesis Specific numbers from individual and group data are used.	
-Scientific reasoning (based on prior knowledge and/or research) explains the results	
Analysis: - Explains how the student knows the data is reliable	
-Explains how and why variables were controlled	
- Explains possible sources of error	
- Explains how the data or ideas from this investigation could be used in future investigations	

Self-Reflection:
Based on your reflection from the previous lab report, what area did you spend extra time reviewing?

	3	2	1
Investigation Design	There are no errors that interfere with the scientist's credibility or the reader's understanding of the experiment. All of the following lab report sections are thorough and correct: -Title -Question -Hypothesis (SMRT) -Materials -Procedure explaining all steps of the experiment	The investigation is designed with few errors that interfere with the scientist's credibility and/or the reader's understanding of the experiment. Most of the following lab report sections are thorough and correct: -Title -Question -Hypothesis (SMRT) -Materials -Procedure explaining all steps of the experiment	The investigation is designed with many errors that interfere with the scientist's credibility and/or the reader's understanding of the experiment. Few of the following lab report sections are thorough and correct: -Title -Question -Hypothesis (SMRT) -Materials -Procedure explaining all steps of the experiment
Data Table(s)	Table(s) show individual and larger sample data with a title, units and numbers (including averages) rounded to the nearest tenth. All data is calculated and recorded thoroughly and accurately. There are no major errors.	Most data is calculated and recorded thoroughly and accurately. There are few major errors.	Little data is calculated and recorded thoroughly and accurately. There are many major errors.
Graph	The graph clearly shows the relationship between both variables (for individual and larger sample data). The graph accurately includes all of the following: -a title -axes labels (with units of measure) -units following constant scale -bars/lines represent correct values -a key (or labels) identify all lines/bars	The graph shows the relationship between both variables. The graph accurately includes most of the following: -a title -axes labels (with units of measure) -units following constant scale -bars/lines represent correct values -a key (or labels) identify all lines/bars	The graph partially shows the relationship between both variables. The graph accurately includes few of the following: -a title -axes labels (with units of measure) -units following constant scale -bars/lines represent correct values - a key (or labels) identify all lines/bars
Conclusion	Conclusion is thorough. Specific data evidence and reasoning are included.	Conclusion is general. Specific data evidence/reasoning is limited.	Conclusion is incomplete. Specific data evidence/reasoning is not used.
Analysis	Analysis contains many thorough, thoughtful, and relevant reflections that communicate purpose, sources of error and next steps.	Analysis contains several thorough, thoughtful, and relevant reflections that communicate purpose, sources of error and next steps.	Analysis contains few thorough, thoughtful, and relevant reflections that communicate purpose, sources of error and next steps.