Name _____ **Lab Report Checklist**

Scientific Inquiry

Class Block _____ **Title of Inquiry** _____ **Criterion D**

Criterion Does Not Meet the Standard (0)	**Criterion Standards:** Refer to listed requirements. To be scored, student Name & Class Block must be on Scientific Inquiry ☐ **Inquiry requirements not in report** or **NHI (**Not Handed In) **or NN (**No Name paper)..... **0** Inquiry must follow suggested layout to be scored. Inquiry will not be scored if difficult to read.
Problem *State* ***(1)***	**State Title:** Title is usually shorter than the question or problem stated ☐ **Title of Scientific Inquiry stated** ..... **1** **State Problem** ☐ **Problem is stated as a "How" or "Why" question**..... **1** Problem or Question should identify the purpose of the investigation
Hypothesis *State* ***(2)***	**State Hypothesis** ☐ **Hypothesis is stated** using **If….then….because…** format ..... **2** **Hypothesis prediction makes sense and is easy to understand** Easy Hint: **IF** Statement followed by Independent Variable (Factor you intentionally change and manipulate) … THEN Statement followed by (What is impacted, Dependent Variable) ***because*** *(Why you think your prediction will occur)*
Materials *State* ***(2)***	**State Materials** ☐ **Materials needed and/or used are stated in a list** ..... **2** List should be in column form - Not written in sentences or in a paragraph ☐ **Bibliography: Research Resources Cited - NOT Required for in Class Labs** ..... **2** **Require 1 – 3 sources cited for MYP Level 1 Rubric Assessments & Science Fair Projects**
Testing Procedure *Describe & Apply* ***(3 – 4)***	**Describe Testing Procedures** ☐ **Describe HOW you will test hypothesis** (List steps sequentially) ..... **3** ☐ **Describe HOW data will be collected** (measure, count, etc.) ..... **3** **Apply Knowledge: Identify Testing Variables & Follow Safe Testing Procedures** ☐ **Independent & Dependent Variables are correctly identified and listed** ..... **4** What is changed intentionally (Independent variable) & What is impacted (Dependent variable) ☐ **Safety Procedures Followed and Materials used correctly (Teacher observation in class)** .... **4** **Accurate measurements, Careful with equipment, Gentle with Living species, No horseplay, Stay on task, etc**
Data *Explain Visually* ***(5 - 6)*** **Data** should include a minimum of 3 trials & the Average of each	**Explain Visually: Data Chart – Data Table** ☐ ***Quality:*** **Charts, Tables, Diagrams & Pictures** ..... **5** ☐ Data Tables/Charts are titled, neat, clearly labeled & easy to read ☐ Uses metric system of measurement to explain gathered data; Pictures explained **Explain Visually: Data in a Graph** ☐ ***Quality :*** **Graphs, Diagrams & Pictures** ..... **6** ☐ Graphs are title, neat, clearly labeled & easy to read ☐ Variables are clearly and correctly labeled on X – Y axis; Pictures explained
Analyze Results *Analyze* ***(7)***	**Analyze Results: Summary Statement (1 – 3 sentences max)** ☐ **Analysis Statement**. What does the data show you? ..... **7** Are the results (data analysis) of your experiment supportive, mixed, surprising, strong or weak, etc? **Analysis of Relationship, Impact or Trend (1 or 2 sentences max)** ☐ **Analysis of Relationship, trend and/or impact:** ..... **7** **Does your experiment show a cause & effect relationship, show impact or predictable trend?** Example: When weight is added on one side of a balance scale it causes the other side to _____
Conclusion *Evaluate & Reflect* ***(8)***	**Conclusion Statement (1-3 sentences max)** ☐ **Conclusion:** Did you prove your hypothesis **(Yes – No – Maybe – Inconclusive)** ..... **8** What can you conclude from your inquiry? **Evaluate & Reflect on Inquiry (1-3 sentence max for each)** ☐ **Evaluation:** How accurate & reliable is inquiry? Is inquiry flawed? Results repeatable?..... **8** ☐ **Reflection:** If you did this experiment again, what would you change and why?..... **8**
1 - 2 3 - 4 5 - 6 7 - 8	**Comments:** _____
	MYP Lab Report Grade:

Sample Guide: Use this INCOMPLETE Example to help guide you in the Layout of Your Written Inquiry. Inquiry should be written in Labeled Sections in correct Sequential Order

(Title your Lab) For example: Color and Temperature

Problem (State - 1)

***Example: How* does color affect temperature?**

Hypothesis (State - 2)

***If* I put different colors of paper under light**
Then* .....*I predict the temperature*(s) *will* ... *(or something similar)
***Because* .....**

Materials (State - 2)

List

1.
2.
3.

Bibliography – NOT Needed for Class Labs

1.
2.

Testing Procedures (Describe 3 - 4)

Describe how you will testing the Hypothesis

I will record the temperature of the paper .... (Over time) ... Etc.

Describe how you will Collect Data

I will document my observation(s) **in ...** Etc.

Variables

Independent variable: Different colors of Papers
Dependent variable: What will you measure?

Lab Procedures: Not required for Labs done in Class as We Discuss Procedures in Class.

I will accurately read the temperature (measurements) on the thermometers in degrees Celsius ....

For safety, I will follow safe lab procedures as described by my teacher.

Data (Explain visually -5 & 6)

Data Chart: Record Temperature for ALL Colors. MUST use Celsius!

White												
Red												
Orange												
Yellow												
Green												
Blue												
Brown												
Black												
	Start Temp	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Average**

Graph of Data: Line graphs show change over time; bar graphs are used to compare;
GRAPH ONLY YOUR COLOR you are responsible for reading ---- MUST use Celsius!

Temp °Celsius												
Use a Line Graph to show Change Over Time	**Start Temp** ←	**Trial 1** ←	**Trial 2** ←	**Trial 3** ←	**Trial 4** ←	**Trial 5** ←	**Trail 6** ←	**Trial 7** ←	**Trail 8** ←	**Trial 9** ←	**Trial 10** ←	**Average** ←

Analyze Results (Analyze - 7)

Analysis Statement

The data showed …

Analyze Relationship, Impact or Trend …

The data indicates ….

Conclusion (Evaluate & Reflect - 8)

No, Yes, Maybe or Inconclusive … etc

Conclusion Statement

I learned …

Evaluation: Accurate – Reliable or Not Accurate - Not Reliable – Evaluate why?

I believe the evidence (data) **is …..**

Reflection: Your thoughts on this experiment

This Inquiry …