Design your Own Experiment

Write a formal lab report for an experiment. The experiment is thought out and planned but it does not need to be performed. It will use fictitious data that you provide to mimic a real experiment.

Purpose

This assignment will **demonstrate the understanding** of the components of a standard formal lab report as well as the understanding of the different types of variables involved in an experiment.

Materials

1-2 sheets of paper and your imagination

Method

Your formal lab report will contain the following:

A. **Introduction and question** – A short description of the reasoning behind the selection of your topic as well as the question you are trying to answer.

B. **Hypothesis** –Use an "If…then…" statement making sure to connect the variables of your experiment. Include a rational to your prediction of why this will happen.

C. **Materials** – Short list of the stuff you think you will need.

D. **Procedure** – Diagram or a well stated step by step list of instructions of how the experiment would have been performed.

E. **Variables** Identify the independent, dependent and two controlled variables.

F. **Observations** (Results) – Provide a table and graph for your results with a title for each. Provide a qualitative statement and a quantitative statement. (*Fully label, use a ruler, provide a title*)

G. **Conclusion** – Compare your results with your hypothesis. Describe the most important finding.

H. **Sources of Error** – Describe two sources of error that may affect your experiment and general human error does not count

I. **Discussion** – Who would benefit from this type of research? Provide the next logical step to the scientific process and identify the next experiment that would continue with this research.

Assessment

Remember this is to show understanding of a formal lab report. Pen or typed reports only.

A.	1	2	3			
B.	1	2				
C.	1					
D.	1	2				
E.	1	2	3			
F.	1	2	3	4	5	6
G.	1	2	3			
H.	1	2				
I.	1	2	3			

Total : **/25**