

9/9/2015

# Your Portfolio:

## Due Date: 12/2/2015

### Individual Portion

#### Part 1

#### Units of Study

- Scientific Method and Problem solving (**all year**)
- Density and Buoyancy (**10/31**)
- States of Matter and Phase Changes (**11/14**)
- The Gas Laws- Charles and Boyle (**11/14**)
- The Structure of Matter and The Periodic Table (**11/28**)

#### Part 2:

- ♦ Paragraph 1, you will need to **explain what you learned about each unit of study**. Your summaries from your notebook will work for this.
- ♦ Paragraph 2, **how the particular unit impacts or applies** to the world around you in daily life. How is the science used in daily life?
- ♦ **Paragraph 3**, how the science is **used in industry**
- ♦ You might want to try googling how the science is used in industry to help you with the real world application. **Remember**, you may not use examples that I have already given you.
- ♦ You should have at least **3 paragraphs** per topic.
- This needs to be done for **each** of the listed units of study.

### Guidelines for the Portfolio and Self Designed Experiment

1. All work submitted **must be typed** and can be done on google docs or office 365.
2. Spacing should be **1.5 or 2.0**
3. **Standard margins or narrow margins** are fine.
4. Please stick with font style **Calibri, Times New Roman or Arial. Font size 11 or 12.**
5. You will need to include a **works cited page** for your background in your **self designed science experiment**. You must have a minimum of **4 sources that are primary and reputable** (not ehow, wikii,ask, Wikipedia, etc.).
6. If you quote directly, then you will need to cite your source within the text. Remember you will be **using MLA format and you will need a minimum of 2 in-text citations**. You might want to use this website for reference: <https://owl.english.purdue.edu/owl/resource/747/02/>
7. Your experiment will need to be **formatted as a scientific experiment. (cover page, thought process, background, problem, hypothesis, variable, control and constant, data and graphs, analysis and conclusions, and a works cited page.**



# Partner Work

1. **Create** a self-designed experiment.
2. You may get your idea for the experiment from an outside source, however you **may not repeat the same experiment**, you **must test a different variable**. You will also be required to provide a copy of the original experiment
3. **Explain** your thought process for choosing your experiment. Is it something that you are interested in, thought might be cool, etc.? Explain.
4. **You must write** a background. The background is really a detailed research essay that you have done about the problem you wish to solve. The background is the information that will help you solve and explain your hypothesis. You should be citing information within this text.
5. You will need to include a **literature search**. A literature search is a article or previous research that has been done on your topic and supports all or parts of your research topic. You just need to **include a copy of the article** with your background information. Remember the article should come from a reputable website and should be a primary source.
6. You must **identify a problem** to be solved or figured out and **write a hypothesis**. Remember you should only be testing 1 variable!
7. **Identify** your variable, control and constants.
8. **Write a step by step procedure** for your experiment. Remember good science is reproducible. The procedure should not be written as a narrative( paragraph) but as a list of step by step instructions.
9. **Collect data** and show this in some type of table. You may use pictures, but you **have to have actual measurements**, etc. Remember to include averages. Good experiments have multiple trials (min. 5)
10. Have some type of **graphic display** for your information. This should be either a bar graph or line graph.
11. You need to **analyze** and **evaluate** your data and write about your findings. Remember report the facts, look for the patterns.
12. **Conclusion**: Did you solve your problem (the variable that you were testing)? Did you find out anything unexpected that took you in a different direction, does your data make sense? Was your hypothesis correct or do you need to rethink your hypothesis and rework your experiment? What **conclusions** can you draw from your data? This section should be several paragraphs long, and include in-text citations.
12. Works cited page, **4 reputable sources in MLA format**.



## Deadlines

Each deadline will be checked off and you will receive a check off grade for having met the deadline.

1. **9/16** chose your partner
2. **9/18** Identify an experiment,
3. **9/25** Have a problem, the variable control and constant identified.
4. **10/9** Begin conducting your experiment and writing your procedure
5. **10/30** Background should be written
6. **11/6** Analysis of data should be complete .
7. **11/20** Conclusion should be written
8. **11/27** Works cited page completed
9. **Due Date is 12/2/2015. The project will not be accepted after 12/4/2015.**

