Unit 1

Lab reports

**Learning Target:**

**The students will learn how to carry out and write a Lab report.**

**Lab Reports.**

**The format that will be used in this course will use the following 6 parts:**

 **Hypothesis**

 **Independent Variable**

 **Dependent Variable**

 **Procedure**

 **Data / Observation and Calculations**

 **Conclusion**

**Hypothesis:**

 **Is an “Educated Guess” that involves your initial thought about a problem (s) that is presented to you. . Your Hypothesis should be 1 sentence.**

 **For Example:**

 **Problems:**

1. **How can you compare the density of an ice cube to the density of water?**
2. **How can you calculate the density of an ice cube and the density of 50 ml of water?**

**Material: Ice, water, Triple Beam Balance**

 **Hypothesis: I think that I can compare the densities of both the solid and liquid form of H20 through both calculation and through observation.**

**Independent Variable (s):**

 **Is the measurement(s), observation(s), equipment or chemicals that are not changed as a result of the investigation.**

 **IV (s): Ice, Water, Mass and Volume**

**Dependent Variable (s):**

**Is the measurement(s), observation(s), equipment or chemicals that are changed as a result of the investigation.**

**DV(s): Density**

**Procedure:**

 **Is a numbered list of directions that are detailed with specific measurements, observations or calculations that are to be made during the experiment.**

**Data / Observations:**

 **Data are numbers used to support (or not) your hypothesis or to make calculations with given conversions that you were shown how to do.**

 **Observations can either be written descriptions or drawings (please label) that explain what you saw during the experiment.**

 **Data:**

 **Mass of Graduated Cylinder:\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |
| --- | --- | --- | --- |
| **Water** | **Mass** | **Volume** | **Density** |
| **Ice Cube** |  |  |  |
| **50 ml** |  |  |  |

**Calculations:**

 **\*\*Be sure o always show your work! No matter how simple the problem is!**

**Conclusion:**

 **Are summaries of the experiment that are to be written in paragraph form. There will be 2 kinds of conclusions that you will write (only 1 per report):**

1. **You will be given a list of vocabulary words (like density) to use in your conclusion. (50 word minimum).**

 **OR**

1. **Answer the following questions using complete sentences (50 word minimum):**
	* 1. **Was your hypothesis correct? Why or Why not?**
		2. **Does your data or observations support your answer?**
		3. **What was the learning target that is related to the Lab?**
		4. **How could you relate this experiment to something outside of the class?**
		5. **If there wasn’t a Learning Target posted, make one.**