**The Great Geyser Experiment** – A Controlled experiment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

We will conduct this experiment on **September 11** – I will provide the geyser tubes and the mentos – you need to provide the diet pop.

1. **Choose one of the following questions (circle it).**
   1. How many Mentos creates the highest geyser?
   2. What type of Mentos creates the highest geyser?
   3. What type of pop creates the highest geyser?
   4. What volume of pop creates the highest geyser?
   5. What temperature of pop creates the highest geyser?
   6. Or another one of your choice –please confirm with the teacher before proceeding.

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1. **VARIABLES:**

**Independent: (**the variable that will be manipulated in your experiment) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

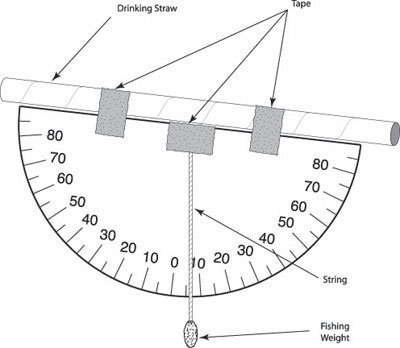
**Dependent:** (the variable that you will measure during the experiment) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **HYPOTHESIS:** What do you expect will happen in terms of geyser height?

**In this format:**

If we \_\_\_\_**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (independent variable) then the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (dependent variable) will **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** because**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

1. **EXPERIMENTAL CONTROLS:** A list of all the factors you will keep the same in each of your trials.
2. **MATERIALS:** A list (including qualtities) of what you will use to conduct the experiment.
3. **PROCEDURE:** all of the steps (in order) that you will take to collect the data



1. **Observations:**

|  |  |
| --- | --- |
| **Variable** | **Height** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**Conclusion:**

1. A summary of the results and what they mean.
2. Based on your results - determine if the **hypothesis was valid**. In other words, did you get the results that you expected? If not, why not?
3. Based on your results - determine if the **method was valid**. In other words, did your method help you get the results that you expected? If so, why? and if not, why not?
4. What **improvements or extensions** could be made to your method to make for a better/more accurate scientific investigation next time?