**Red Cabbage Acids and Bases Experiment**

**Question:**

**Hypothesis:**

**Materials:**

* 50 mL of red cabbage juice indicator
* Test tubes
* Test tube holder
* Medicine dropper
* Samples of solutions (vinegar, baking soda, water, lemon juice, shampoo, powdered antacid tablet)

**Procedure:**

1. Read through steps 2-7 and design a table to record your observations. Use the sample table on pg. 178 of your textbook as a guide.
2. Prepare your lab station by covering the desk with newspaper. Have some paper towel on hand in case of spills.
3. Your teacher will instruct you on how and when to collect your test tubes, test tube holder, red cabbage juice indicator, and sample solutions.
4. Prepare your test tubes by pouring in the sample solutions in the following amounts. *\*measurements for this lab do not need to be precise; you can “eyeball” the following amounts\**

*\*\*\*****Don’t forget to make initial observations about these substances!\*\****

* 1. 1 tbsp. of vinegar
  2. 2 tsp. of baking soda
  3. 2 tbsp. of water
  4. 1 tbsp. of lemon juice
  5. 1 tbsp. of shampoo
  6. ½ tsp. of powered antacid tablet

1. Be sure to label each test tube by recording the contents of the test tube on the newspaper.
2. When instructed, test your solutions by adding roughly 10 drops of red cabbage juice indicator into each test tube. Some substances may require more drops. However, you should start with 10.
3. **Observe** the colour change that occurs in each test tube and record your observations.

**Observations (BE SURE TO INCLUDE A PICTURE!!!):**

Initial observations:

Observation Chart (you might want to do this on a separate piece of paper):

**Explanation/Discussion:**

**Your explanation/discussion should consider/answer the following:**

1. What inferences about acidity can be made about the substances tested in this lab?
2. What substance in this lab was the most acidic? Which was the most basic?
3. Arrange the substances tested in the lab from most acidic to most basic.