**Balloon Competition**

**Purpose: Acetic acid and Sodium bicarbonate produce of CO2(g). You must determine the amount of Sodium bicarbonate and 5% acetic acid needed to maximum inflate a balloon placed over the mouth a 250 mL flask while using the least amount of materials.**

**Materials:**

**Procedure:**

**1. Measure the amounts of each reactant. Measure sodium bicarbonate in a weigh boat. Once recorded, it gets poured into a balloon. The vinegar gets measured in a graduated cylinder then gets poured into a 250 mL flask.**

**2. When you are ready, you will invert the balloon so that the sodium bicarbonate drops into the flask containing the vinegar. Be sure to get all of the sodium bicarbonate into your flask. Using string and a ruler, measure the balloon once it is at its greatest size. Record this in your data table.**

**4. When your experiment is completed, wash out your balloon and do another trial until satisfied with your result or your time runs out!**

**Data:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Trial number** | **Amount of vinegar** | **Amount of sodium bicarbonate** | **Size of balloon**  **(in cm)** |
| **1** |  |  |  |
| **2** |  |  |  |
| **3** |  |  |  |
| **4** |  |  |  |
| **5** |  |  |  |

**Conclusion:**