**Making Measurements**

**Purpose:** To understand how to measure different types of objects and to relate the measurements to your background knowledge. In this lab you will be making measurements that are part of a recipe. You need to make exact measurements or the recipe will not work.

**Problem:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Hypothesis:** ­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IV:** ­­\_\_\_Measurement system\_\_\_

**Levels:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Control:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DV:** \_\_\_Amounts collected (g, mL, cm)\_\_\_

**Procedures:**

**Materials:**

* Measuring cups
* Graduated cylinders
* Electronic balances
* Triple beam balance
* Beaker
* Measuring spoons

**Procedures:**

1. The recipe calls for ½ cup of sugar. Explain what type of measurement, measurement tool, and measure the metric equivalent for that amount.
2. The recipe calls for 2 cups of water. Explain what type of measurement, measurement tool, and measure the metric equivalent for that amount.
3. The recipe calls for 1 Tablespoon of cornstarch. Explain what type of measurement, measurement tool, and measure the metric equivalent for that amount.
4. The recipe calls for ¼ lb. of applesauce. Explain what type of measurement, measurement tool, and measure the metric equivalent for that amount.
5. The recipe calls for 2 ounces of fruit. Explain what type of measurement, measurement tool, and measure the metric equivalent for that amount.
6. The recipe calls for 2 inches of ginger grated. Explain what type of measurement, measurement tool, and measure the metric equivalent for that amount.

**Data:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ingredient** | **Type of Measurement** | **Measurement tool** | **Metric Equivalent** |
| ½ cup Sugar |  |  |  |
| 2 cups Water |  |  |  |
| 1 Tbs. Cornstarch |  |  |  |
| ¼ lbs. Applesauce |  |  |  |
| 2 oz. Fruit |  |  |  |
| 2 in. Ginger |  |  |  |

**Analysis:** *Write a sentence description for each type of measurement and how the customary relates to the metric equivalent.*

|  |  |
| --- | --- |
| **Ingredient** | **Description of Relationship** |
| ½ cup Sugar |  |
| 2 cups Water |  |
| 1 Tbs. Cornstarch |  |
| ¼ lbs. Applesauce |  |
| 2 oz. Fruit |  |
| 2 in. Ginger |  |

**Conclusion:** *Write an argument for metric measurements. Use 1 credible source to support why the United States should convert to the metric system.*