Conversions and Black Snakes!

Materials

- 1. Calculator
- 2. Alcohol
- 3. Baking soda NaHCO₃
- 4. Sugar C₂H₅OH
- 5. Aluminum Foil
- 6. Small Graduated Cylinder
- 7. Beaker
- 8. Paper Towel for Scale
- 9. Digital Scale
- 10. Lighter
- 11. Stir rod
- 12. Scoopula



Observations: Brown sugar is also called raw sugar. ... The main difference between raw (brown) sugar and white sugar is that brown hasn't completely been refined. Raw sugar is 96% pure, the rest is molasses (still containing minerals), while white sugar is pure calories (4 calories per gram)._Powdered or confectioners' sugar is granulated sugar that has been finely ground and mixed with a small amount of cornstarch to prevent caking. Powdered sugar is very fine.

Hypothesis: Which sugar will burn the best and form the most "black snakes"?

1. Convert the following ingredients from pounds to Grams: Show your conversions below!

a. 0.035274 pounds of Sugar C₂H₃OH = _____ Grams (use a scale) 0.00220462 pounds = 1 gram $\circ O357741bs_X = 19ram$ $\circ O02204621bs = 9ram$ b. 0.0110231 pounds of Baking Soda NaHCO₃ = _____ Grams (use a scale) 0.00220462 pounds = 1 gram $\circ O1102311bs_X = 19rem$ $\circ O1102311bs_X = 19rem$ $\circ O1102311bs_X = 19rem$ $\circ O2204621bs_2 = 9rams$ c. .00264 gallons of alcohol = ______ milliliters (use a Graduated Cylinder) 3785.41 milliliters = 1 gallon $\circ O02649al_X = \frac{3785.41m1}{19a110n} = 9rams$

- Measure out each of the ingredients using a <u>scale</u> and <u>graduated cylinder</u>. Be extremely
 precise in order to get good results!
- 2. Mix the baking soda, sugar, and alcohol together in a **<u>beaker</u>**.
- 3. Lay out some aluminum foil on a table.
- 4. Pour the sugar, baking soda, and alcohol mixture onto the aluminum foil.
- 5. Use a lighter to light the mixture.
- 6. Observe the sugar mixture to see what is formed.
- 7. Repeat the experiment but use powdered sugar and observe the results.
- 8. Repeat the experiment again with brown sugar and observe the results.
- 9. If you have time, experiment! Try mixing all 3 sugars but make sure the total mixture weighs 16 grams.

Conclusion:

- 1. Which sugar burned the best and made the most black snakes?
- 2. Was your hypothesis correct or incorrect?