

# Powder Analysis Activity

## Directions:

Using your powder Analysis Chart (see next slide), answer the questions that follow on the back of your powder Analysis Lab Report Form. Show them to your teacher before continuing with the powder Analysis Lab.


















Note: Use a well plate for all tests except Solubility and Heat (use a test tube for these).

# POWDER ANALYSIS

Substances found at a crime scene can be identified in the forensic science lab using the information below.



Use only a pinch of powder and a drop of indicator	 Solubility <small>Does it dissolve in water? (add a dropper of water)</small>	 Vinegar <small>(Place directly on Powder)</small>	 Iodine <small>(add a dropper of water)</small>	 Universal Indicator <small>(add a dropper of water)</small>	 Phenolphthalein <small>(add a dropper of water)</small>	 Cabbage Juice <small>(add a dropper of water)</small>	 Heat <small>(add a dropper of water)</small>
 BAKING SODA	Dissolves	Fizzes	No change	No change	Slightly Pink	No change	Turns to white snowy solid
 CORN STARCH	Dissolves <small>(turns cloudy)</small>	No Fizz	Turns Black	No change	No change	No change	Thickens and will turn brown
 PLASTER OF PARIS	Does not Dissolve <small>(gets warm and turns solid)</small>	No Fizz	No change	No change	No change	No change	No change
 SUGAR	Dissolves	No Fizz	No change	No change	No change	No change	Turns Brown and then black and gives off sweet smelling smoke
 SALT	Dissolves	No Fizz	No change	No change	No change	No change	Pops and makes a snowy mess
 CHALK	Does not Dissolve <small>(stays clumpy and partially dry)</small>	Fizzes	No change	No change	No change	No change	No change
 DETERGENT	Dissolves	Slight Fizz	No change	Turns Blue to Purple	Turns Red	Turns Green	Foams and may turn slightly brown
 FLOUR	Does not Dissolve <small>(stays clumpy and partially dry)</small>	No Fizz	Turns Black	No change	No change	No change	Turns slightly brown

1. A substance that dissolves in water and pops and makes a snowy mess when heated is probably

a. sugar



b. baking powder



c. salt



2. A substance that does not dissolve in water but fizzes with vinegar is probably

a. corn starch



b. chalk



c. baking soda



3. A substance that dissolves in water, turns brown when heated, and turns black with iodine is probably

a. corn starch



b. flour



c. sugar



4. What is the **only test** that you do not add a dropper of water to the powder

a. solubility



b. vinegar



c. iodine



d. universal indicator



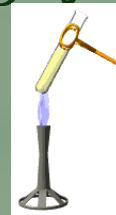
e. phenolphthalein



f. cabbage juice



g. heat



5. Obtain a pinch of the mystery powder at the side lab table (not the **evidence**, that comes later), and test it to determine what it is. Use the Powder Analysis Chart, and test for Solubility, and reaction with Heat, Vinegar, Iodine, Universal Indicator, phenolphthalein, and Cabbage Juice. What is the mystery powder in this activity?

a. Salt



b. Baking Soda



c. Corn Starch



d. Flour



e. Chalk

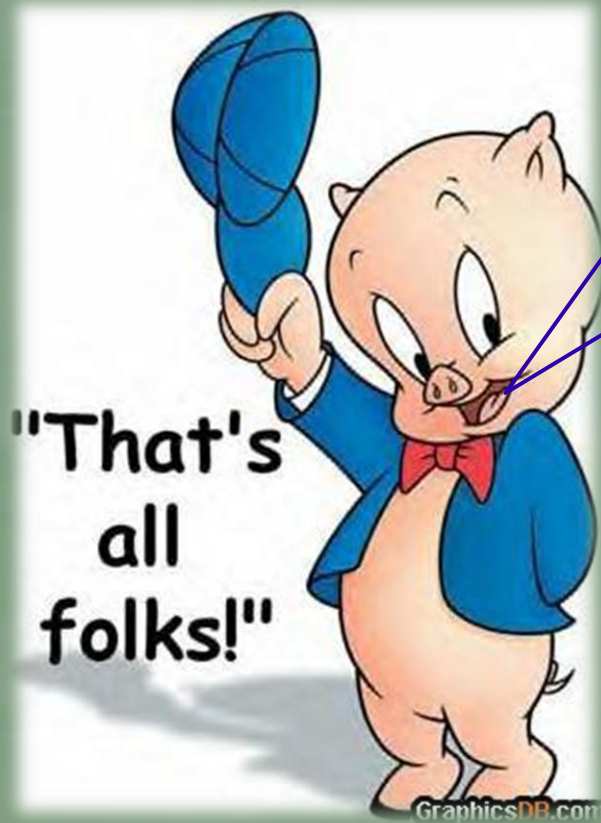


f. detergent



g. Sugar





"That's  
all  
folks!"

Now show your answers to your  
teacher so you can go on to the  
Powder Analysis Lab!!