

Mystery Powder Lab

Glue this side
down into your
science notebook.

“A dot is a lot!”

This is a modified version from the
original posted at
<http://sciencespot.net/Pages/classchem.html#Anchor2>
Teacher info provided.

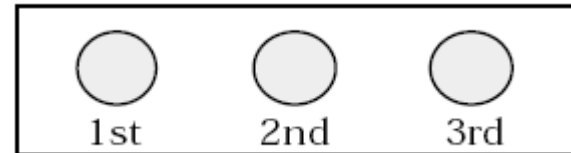
Flow Chart to Determine Powders:
[http://sciencespot.net/Media/
cookiemys_flowchart.pdf](http://sciencespot.net/Media/cookiemys_flowchart.pdf)

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IMPORTANT: Each person should test only one powder at a time! **DO NOT ALLOW SAMPLES TO MIX TOGETHER!**

FOR EACH SAMPLE:

Step 1: Place 3 small samples of your powder (about half the size of a dime) into the micro-wells.



Step 2: Describe your powder sample and write your observations into the data table.

Step 3: Add 4 to 5 drops of **Cabbage Juice** to the 1st well and mix using a clean toothpick. Record your observations.

Step 4: Add 4 to 5 drops of **VINEGAR** to the 2nd well and mix using a clean toothpick. Record your observations.

Step 5: Add 4 to 5 drops of **IODINE** to the 3rd well and mix using a clean toothpick. Record your observations. **CAUTION:** Iodine will stain clothing, hands, and anything it touches!

Step 6: For the **HEAT** test, place a small amount of powder on a clean square of aluminum foil. Bend the edges up to create a “cup” and hold onto it using a pair of tongs or tweezers.

Hold the sample over the candle flame for a few seconds. Record your observations in the chart. **CAUTION:** Follow all lab safety rules when working with fire.

CLEAN UP YOUR AREA BEFORE YOU LEAVE

Sample #	Description	Cabbage Juice pH test	Vinegar Test Fizz (+)	Iodine Test Black/Purple (+)	Heat Test Black, Bubbly (+)
1					
2					
3					
4					
5					
6					

1. Using your flow chart, determine the identities of the mystery powders.
2. Write the sample numbers into the boxes on the flow chart, and have your work verified.
3. Do not share your results with any other groups.