Mystery Powder Lab

Objectives:

- to collect data from 5 different white powders based upon physical and chemical properties.
- to follow correct lab safety procedures.
- to analyze data and use a flow chart
- to identify substances.

Procedure: DO *NOT* TASTE ANY POWDERS ! ! !

1. Use your test mat to work on.
2. **Test ONLY 1 POWDER at a TIME.**
3. Place a small amount of powder in each of the 4 boxes on your test mat.
4. Use toothpicks to mix the indicators with the powder.
5. Be sure to wipe off mat **completely** before moving onto the next powder.

Physical properties & pH box :

1. Record the properties of the powder such as color, texture, crystal or powder.
2. Add 3-5 drops of water. Test the pH with red and blue litmus paper. Red litmus will turn blue for a base. Blue litmus paper will turn red for an acid. No color change equals neutral.
3. Add 2-3 drops of Cabbage Juice. Check pH.

Biuret test box :

1. Add 3-5 drops of Biuret. If protein is present, it will turn purple.
2. Record results in Table 1.

Iodine test box:

1. Add 2-3 drops of Iodine. If starch is present, it will turn blue/black/purplish.
2. Record results in Table 1.

Vinegar test box :

1. Add 2 drops of Vinegar.
2. If it fizzes, then CO2 has been released.
3. Record results in Table 1.

Data :

Table 1: Results of Tests on Powders (whole page)

Test	A	B	C	D	E
Color					
Texture					
Crystal/Powder					
Litmus Paper					
Cabbage Juice					
Acid/Base/Neutral					
Biuret					
Iodine					
Vinegar					

Analysis & Results :

1. What did all of the powders have in common?
2. Why is important to use different methods to determine what powder it is?
3. Use the flow chart to see what powders you had!
4. Give some common foods that each mystery powder can be found in.
5. How might these tests be useful to you?

Conclusion:

2-3 sentences on what you learned