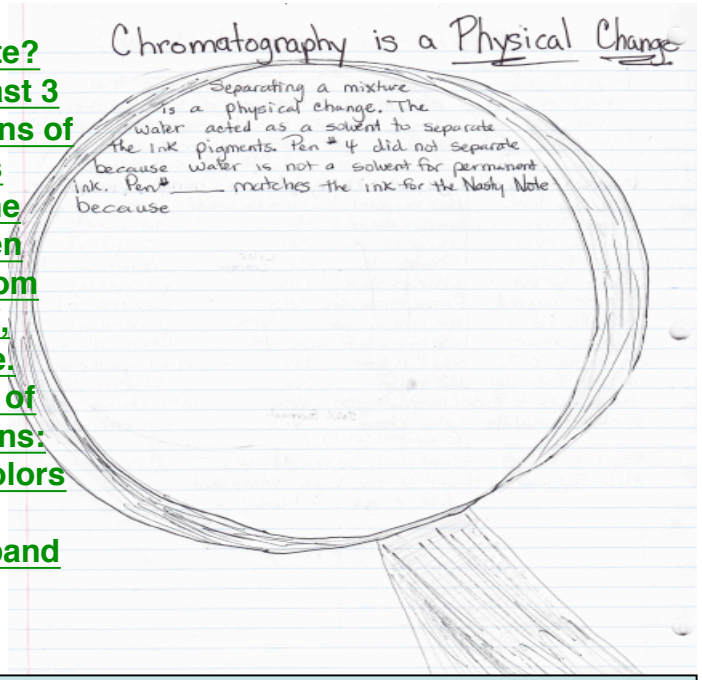
Chromatography is a Physical Change

Conclusion:

- Which pen wrote the NASTY note?
- List at least 3 observations of similarities between the suspect pen and pen from the NASTY, MEAN note.
- Examples of observations:
- List the colors in order
- Width of band of specific colors



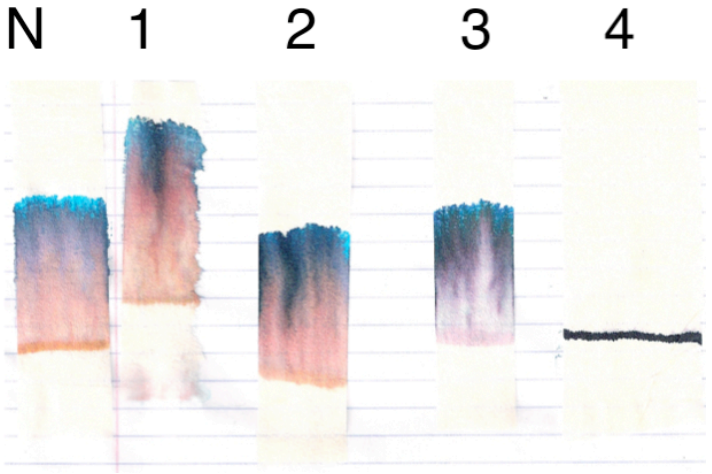
Search Warrant:

CSI Chavez:

A) **Problem: Who thrashed the kitchen of Chef Pash?**

B) Day 1: Paper Chromotography (Separating a mixture by solubility: ability to be dissolved)

C) Suspect Pens Data:



D. SOLUBILITY: How easily a certain solute can be dissolved in a specific solvent

E. For each pen list the pigments (colors) in order of MOST soluble to LEAST soluble in water

Pen 1

Pen 2

Pen 3

Physical/Chemical Properties

1. PHYSICAL PROPERTIES are…..
2. List the physical properties of Gold (Au):
3. CHEMICAL PROPERTIES are….
4. List the chemical properties of Iron (Fe):

Conclusion:
Summarize your evidence in a report for the district attorney. You should make a case that one suspect should be arrested and checked for the crime.
Use your notebook to remember and write about each step in collecting evidence.
Write one paragraph for each bullet point:

•First sentence should say who should be arrested for the crime. What evidence found at the crime scene was used to solve this crime?
•What evidence led to the search of the Downtown Office Building?
•What evidence narrowed the suspect down to one person?
•Suggest other crime techniques that could be used to gather more evidence after the suspect was arrested.

Data tables:

PHYSICAL PROPERTIES

1. Observations of the substances: Measure 2.0 grams of each powder onto a dish. Remember to press zero on the scale with the empty dish on the scale.

Substance	Color	Texture (what it looks like)	Odor (use wafting technique
A			
B			

2. Observations when mixed with water
Measure 40 ml of water with a large graduated cylinder into a 100 ml beaker. Add the 2.0 grams of each substance. Stir to try to dissolve.

Substance	Observations	Does it dissolve? (explain)
A		
B		

CHEMICAL PROPERTIES

3. Observations when an acid (_____) is added.
Measure 4 ml of vinegar in the small graduated cylinder. Pour the vinegar into the 100 ml beaker of each substance mixture with water.

Substance	Observations	New substance formed? (describe)	Did a chemical change occur? Explain.
A			
B			