



Fingerprints

Station 1:

Station 1: Fingerprints

1) Lifting a Fingerprint

- A) Rub your finger on the side of your nose to make it oily
- B) Press your finger against the side of a glass
- C) “Dust” the print with cocoa powder
- D) Use a piece of clear tape to lift the print from the glass
- E) Tape it to your worksheet
- F) Examine the defining patterns



2) Compare the evidence fingerprints to those of the suspects.

Whose fingerprints were found at the crime scene?



Chromatography

Station 2:

Station 2: Chromatography

A note was found at the crime scene that read:

Just borrowing the machine --Be right back!



Chromatography is the process by which a color (like a mark made by a pen) can be separated into the different colors from which it is made; different inks will separate into different color patterns.

Using each of the suspects' pens, make a line across a piece of filter paper and then suspend the papers across the tub of water to see the colors separate. Make sure the line is above the level of the water!

To whome does the pen used at the crime belong?



Station 3: Fiber Analysis

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- 1) Use the magnifying lens to examine the fibers
- 2) Determine the fiber colors in each fabric sample
- 3) Determine the material used to make the sample (cotton, silk, etc.)
- 4) Determine which fibers are identical to the ones found at the scene of the crime



Whose clothing matches that found at the crime scene?



Station 4: Smells

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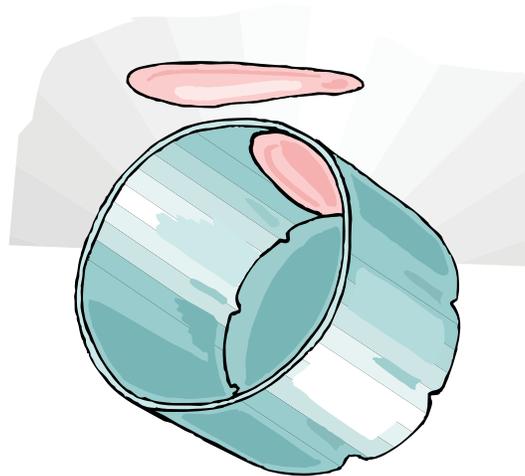
A paper towel with some perfume on it was found in the trash at the crime scene. Compare the evidence to the perfumes of the suspects:



Open the vial and use your hand to waft the scent toward your nose. Don't stick your nose into the vial or inhale deeply. You do not need to remove the sample from the vial.

If the scents start to become hard to distinguish, smell your hand. This will neutralize you and make it easier to smell again.

Whose perfume matches the evidence from the crime scene?



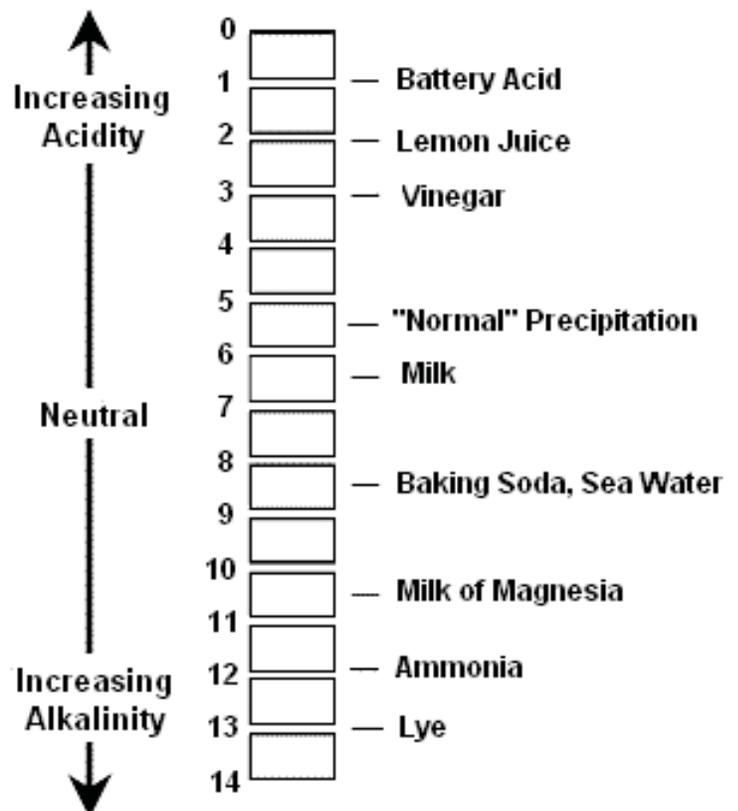
Station 5: Spilled Liquid

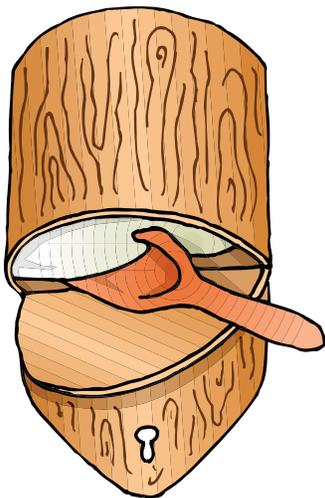
Station 5: Spilled Liquid

pH is a measure of the acidity of a liquid. Different liquids have different amounts of acid in them. The acidity level of some common liquids is below:

Use the pH paper provided to measure the acidity of the mystery liquid and the suspects' favorite beverages.

Who do you think spilled a drink at the crime scene?





Station 6: Spilled Powdered

Station 6: Spilled Powders

There are many white powders that look similar to the naked eye. Follow the directions below to fill out the chart in your notebook:



- 1) Put a spoonful of each powder on a piece of dark paper and label each.
- 2) Use the magnifying lens to examine the powders.
- 3) Feel the powders with your fingers to examine the texture.
- 4) Use the dropper to place a few drops of water on each powder.
- 5) Using a fresh sample, use the dropper to place a few drops of vinegar on each powder.
- 6) Which powder matches the evidence?

Who do you think spilled the powder at the crime scene?