

Name \_\_\_\_\_ date \_\_\_\_\_ hr. \_\_\_\_\_

**Phenolphthalein Presumptive Blood Test Lab Analysis– Revised**

**Please DO NOT write a lab report for this lab. All you need to turn in is the data and the answers to the lab analysis questions**

Purpose: The purpose of the lab is to use a test to determine whether or not sample stains are blood or another chemical substance.

In this test the alcohol is used to clean the stain/area in order to expose the hemoglobin in the blood. The hydrogen peroxide is broken down by the heme in the hemoglobin. When it breaks down, oxygen molecules are released. The Phenolphthalein works as a color indicator. It turns hot pink when it comes in contact with the oxygen. These chemical reactions only work if the stain is actually blood.

Procedure:

1. Wet a clean Q-tip with water
2. Lightly rub the Q-tip on the area believed to be blood
3. Do the next steps holding the Q-tip over the sink
4. Apply 1-2 drops of Alcohol
5. Apply 1-2 drops of Phenolphthalein
6. Apply 1-2 drops of Hydrogen Peroxide
7. Record the results as positive or negative on your data chart

Calculations and Data:

Create a data chart that lists the item number, the names of the items, and whether or not the items were positive or negative for real blood.

Lab analysis:

1. Where is hemoglobin found in the body and what is its function?
2. Write the chemical reaction that shows hydrogen peroxide being broken down. Show the reactants and products in your equation.
3. What is actually happening on the Q-tip that will turn the Phenolphthalein pink? What is it reacting with to create the color change?
4. Explain at least two reasons why this test would be important to forensic serologists and crime scene technicians