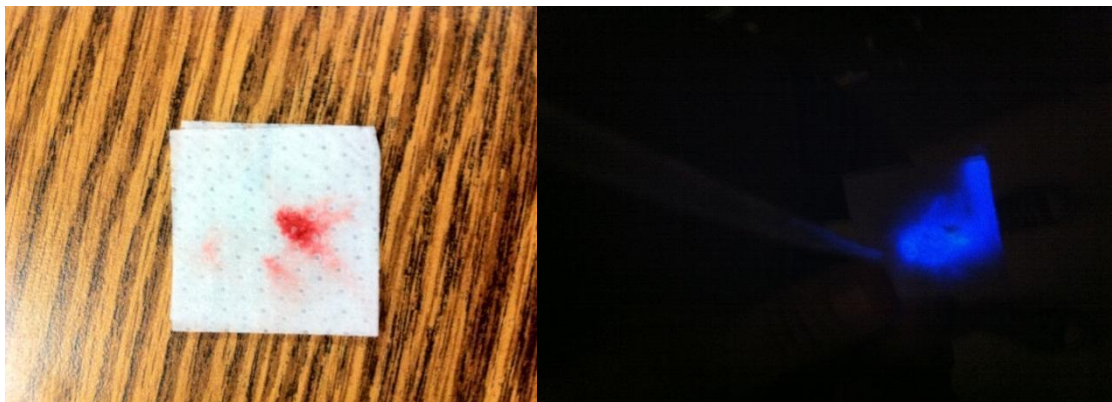




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Standards:

2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

5-PS1-3. Make observations and measurements to identify materials based on their properties.

HS-PS1-2. Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

HS-PS1-4. Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.

Introduction:

Have you ever wondered how Crime Scene Investigators (CSI) are able to make blood glow at suspected crime scenes? Bring out your inner CSI self and enjoy this amazing project. Test it on fresh blood and older blood to see the different results. Also try different blood to see the variance.

Materials:

- 0.2 grams Luminol
- 10 mL Hydrogen Peroxide (3%)
- 25 g Potassium Hydroxide
- Blood

Safety:

- Always have an adult with you to help you during your experiment.
- Always wear eye protection and gloves when doing chemistry experiments.

Procedure:

1. Measure 0.2 g of Luminol.
2. Measure 15 g of Potassium Hydroxide.
3. Mix Luminol and Potassium Hydroxide in 250 mL of water.
4. Take 10 mL of the Luminol and the Potassium Hydroxide solution and add it to 10 mL of Hydrogen Peroxide.
5. Pour the solution into a clean spray bottle. To make more spray continue adding 10 mL of each of the solutions together.
6. Find a source of blood. If you decide to prick a finger, do so in a safe manner with clean needles and sterile alcohol pads.

Data and Observations:

Record your observations in this space

Questions:

What did you see? Anything you were not expecting? Describe it here.

References:

1. Helmensteine, Anne. Luminol Chemiluminescence Test for Blood. About.com/Chemistry. <http://chemistry.about.com/od/glowinthedarkprojects/a/luminolblood.htm>