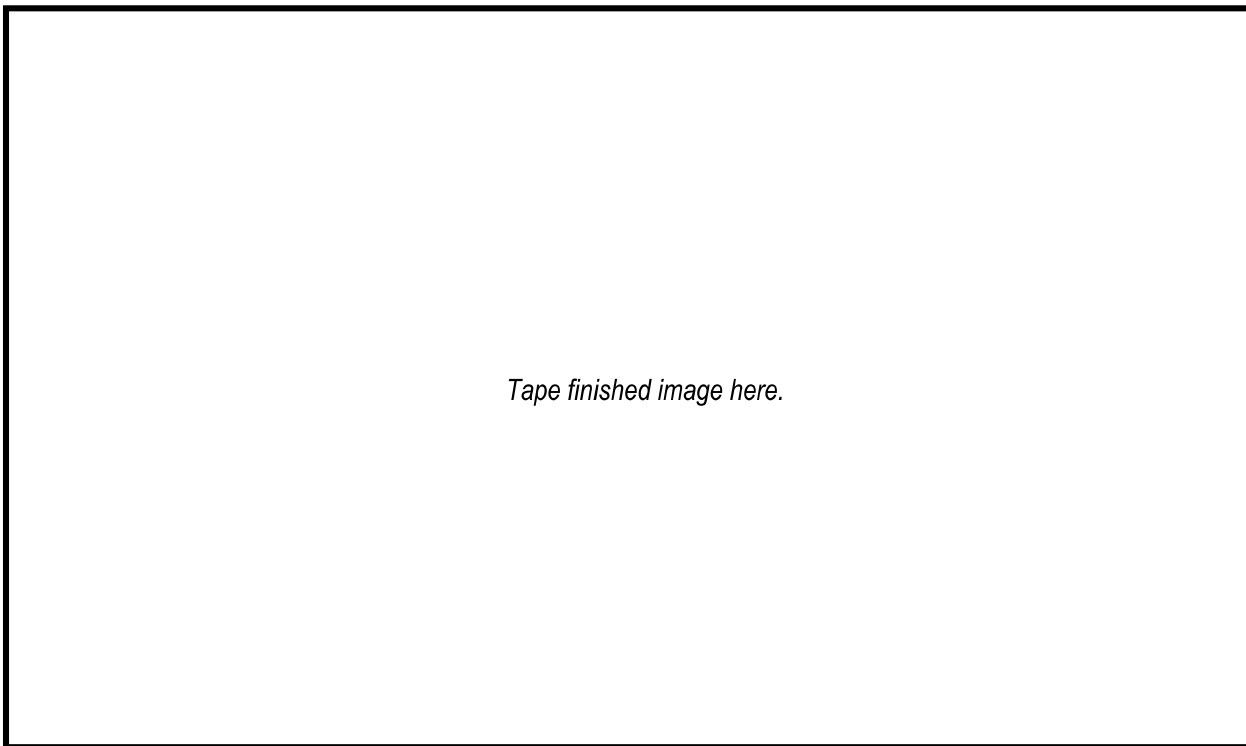




Photolithographer: _____

Per: _____ Date: _____

Solar Printing: Masking and Printing with UV Light



Describe the objects you used, how the images were created and the effect of the angle of light on the resulting images.

Instructions to Solar Printing Homework (printed on the backside of the homework assignment)

1. When you receive the solar print paper, carefully shield it away from light by placing it in your science notebook.
2. Choose three objects to image. The objects should fit on the solar print paper. *At least one of the objects should have very small features to image*, such as a feather, lace, mesh wire or a small sculpture.
3. Choose a spot that is receiving full sunlight and using your shadow as a shaded darkened area, place your solar print paper blue side up and carefully arrange your objects on it.
4. Once you are satisfied with the arrangement of the objects, move away from the paper so that it receives the full sunlight. Wait for 3–5 minutes without touching the paper or objects. The paper will turn white when it is finished.
5. Remove the objects and rinse the solar print paper with cold tap water for 30 seconds to one minute. Place on a flat surface to dry. You can dab the surface with a paper towel to help the paper dry. The blue will darken over time.
6. Tape your finished image onto the given homework sheet and answer the question in full sentences.

How does the Solar Print Paper work?

The paper is coated with a solution of Potassium ferrocyanide and Ferric ammonium citrate. Exposure to UV light changes the valence of the Iron atom in Ferric ammonium citrate, which causes the molecule to chemically react with the Potassium ferrocyanide. The product is a blue dye called Prussian blue (ferric ferrocyanide), which is insoluble in water.