CSI Lab: Fingerprint Evidence

Part I.

Materials: Ink Pad White Paper Fingerprint Card

Procedure:

1. On a sheet of scrap paper, practice rolling your lab partner’s prints. Remember the techniques demonstrated in the video. Good technique demands including the entire fingertip, edge to edge and down to the area of the first joint. Keeping the paper at the edge of the table will make this easier
2. When rolling onto the paper, make one smooth, even motion. Look at the reference paper showing good and bad prints.
3. Have your teacher check your work. When you feel comfortable with your technique, roll a full set of prints on the fingerprint card. One card per person.
4. When the prints are dry, label each print pattern.

PART II – Lifting Prints

Materials: Glass or Ceramic prop, Index cards, Packing Tape, Black/Magnetic Powder, Magnetic/ Black Powder Wand

Procedure:

1. Lifting prints takes time and patience. We will use black or magnetic powder (contains iron and works well on nonporous surfaces like glass and is less messy than other powders).
2. Obtain a glass or ceramic prop, if needed wash and dry it well.   
   Hold it by the edges only.
3. Rub a finger over the surface of your forehead or someplace where you will pick up skin oils. Make some prints on the glass or ceramic item.
4. If you are not sure how to use the wand ask for help. Lightly brush a very small amount of powder over the print. Too much or too little powder can make it difficult to see the minutiae.
5. Take a piece of packing tape and roll the edges to help you control it. Do not touch the sticky side of the tape. Place the tape over the entire print and lightly rub your finger across the tape, forcing out all the air bubbles. Lift the piece of tape off the item and place it on an index card. Label the card with your name.
6. Each person in the group should lift a fingerprint.
7. Swap your lifted print with a partner to see if you can identify it on your partners 10- print card.

Questions:

1. Identify 5-10 features of your fingerprint: dot, spur, ridge ending, bifurcation, island ridge, island, and etc.
2. Write a paragraph and tell all you can about your fingerprint. What features did you find? Is it a whorl, a loop, or an arch? If it is an arch or whorl, what type of an arch or whorl? It is a radial or ulnar loop? Where is your delta or core if you have one? Do you have scaring? Be creative. This is your time to shine and show off your knowledge of fingerprints.