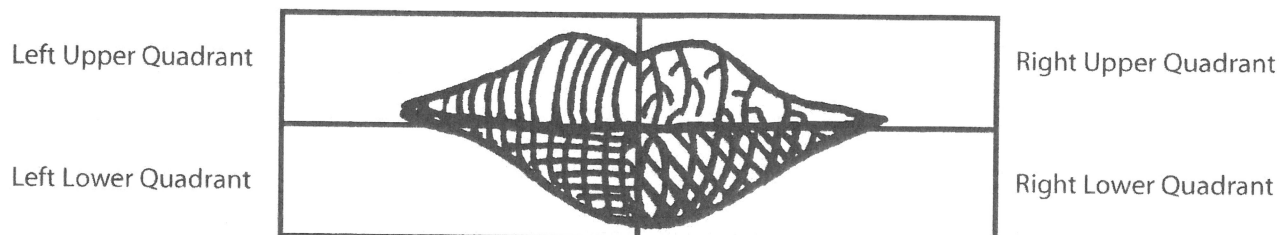


Name: _____ Date: _____

LIP PRINT ANALYSIS FORENSICS LAB

Most people have different groove patterns on different parts of their lips. For this reason, forensic scientists divide the lips into four sections, or quadrants, when they examine the lip print.



Note that this diagram is reversed, making a mirror image. When looking at a suspect face to face, you are seeing his left side as your right. The diagrams are always reversed for this reason.

Follow the steps below to analyze the lip print found in Ms. Moondale's room and the lip prints made by each of the remaining suspects. Compare the prints to determine if there is a match.

1. Get Exhibit #1. Lay the print flat on your desk. Look at the left upper quadrant. Remember, this is to your left. What is the pattern? Record on the data sheet the Roman numeral that best describes the pattern in this quadrant. Use the Lip Print Pattern Classification Chart as a guide. Now, examine each of the other quadrants and record your data.
2. Next, examine each of the suspect's prints and record in your data chart.
3. Sketch the lip print in the chart and then record "yes" if the sketch is a match to the evidence or "no" if it is not.



Name: _____ Date: _____

LIP PRINT ANALYSIS FORENSICS LAB

Lip Prints	Lip Print Sketch	Left Upper Quadrant	Right Upper Quadrant	Left Lower Quadrant	Right Lower Quadrant
Exhibit #1 (Ms. Moondale's room)					
Isabel Fernandez					
Ellie Johnson					
Rose Beauvoir					
Samantha Port					

Does one of the suspect's prints match the print found in Ms. Moondale's room?

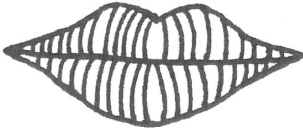


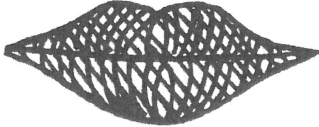
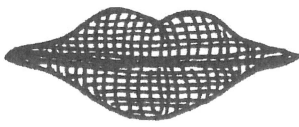

LIP PRINT CLASSIFICATION GUIDE

Detectives found a piece of tissue in the trashcan in Ms. Moondale's classroom. The tissue had a lip print on it. You need to analyze the lip print based on the characteristics discussed in this classification guide. Your teacher will display this evidence to you as Exhibit #1.

Every individual in the world is unique. Lip prints, like fingerprints, illustrate this uniqueness because no two lip prints are alike. The study of lip prints is called *cheiloscopy*.

The prints are formed by tiny wrinkles and grooves on the surface of the lips. These grooves form a variety of patterns. Forensic scientists can analyze the pattern of a lip print found at a crime scene and use it to identify the person who left the print.

Lip Print Pattern Classification Guide

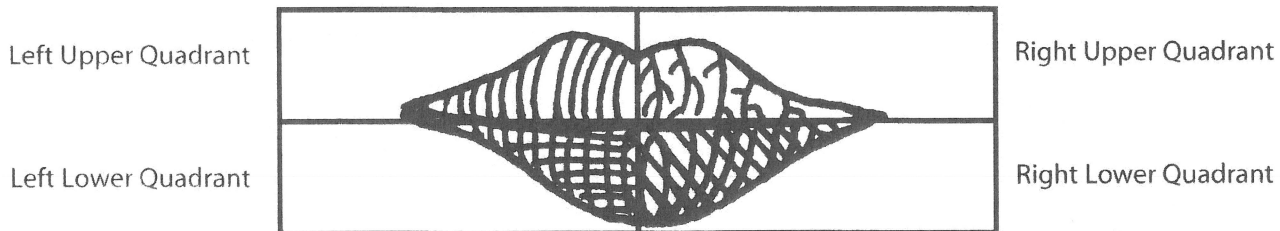
<p>Type I: Long Vertical Grooves</p> 	<p>Type I!: Short Vertical Grooves</p> 	<p>Type II: Branched Grooves</p> 
<p>Type III: Intersected Grooves</p> 	<p>Type IV: Rectangular Grooves</p> 	<p>Type V: Irregular Grooves</p> 

Note that Type I and Type I! are both vertical grooves and therefore have the same Roman numeral. The "!" differentiates the short from the long pattern.

Name: _____ Date: _____


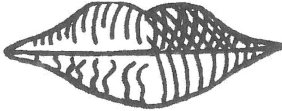



LIP PRINT ANALYSIS

Most people have different groove patterns on different parts of their lips. For this reason, forensic scientists divide the lips into four sections, or quadrants, when they examine a lip print.



Note that this diagram is reversed, making a mirror image. When looking at a suspect face to face, you are seeing his left side as your right. The diagrams are always reversed for this reason.

Examine the sketch of the lip print found at the crime scene in Ms. Moondale's room, Exhibit #1 (shown above). Use a pencil and mark the four quadrants on the sketches of the suspects' lip prints. Using the Lip Print Classification Chart as a guide, determine what type of pattern is in each quadrant of their lip prints. Write the Roman numeral that names that type of pattern in the appropriate box. See the example on the chart below.

Lip Prints	Lip Print Sketch	Left Upper Quadrant	Right Upper Quadrant	Left Lower Quadrant	Right Lower Quadrant
Exhibit #1 (Ms. Moondale's room)		<i>I</i>	<i>II</i>	<i>IV</i>	<i>III</i>
Isabel Fernandez					
Ellie Johnson					
Rose Beauvoir					
Samantha Port					

Does one of the suspect's prints match the above print found in Ms. Moondale's room?

Name: _____ Date: _____

MAKE YOUR OWN LIP PRINT

Draw a sketch of your completed lip print.

Left Upper Quadrant	Right Upper Quadrant
Left Lower Quadrant	Right Lower Quadrant

Analyze your lip prints to determine what patterns you find on your own lips. Gather the following materials for this activity from your instructor:


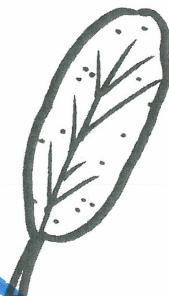

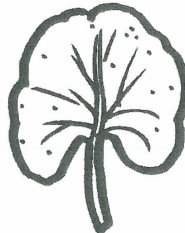





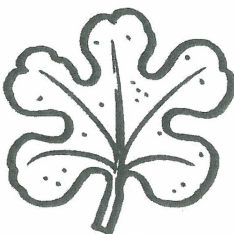
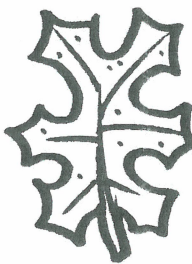
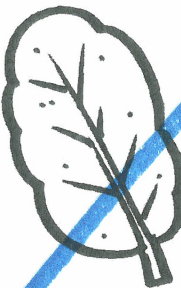

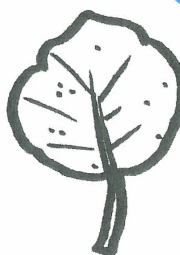
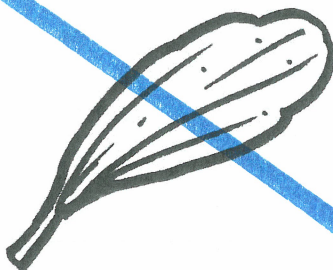
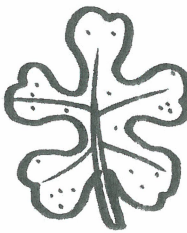
- lip balm or lipstick,
- cotton swabs,
- an index card,
- dusting powder (chocolate cocoa),
- dusting brush,
- paper towel,
- magnifying lens, and
- Lip Print Classification Guide (p. 96).

Follow these steps to analyze your own print:

1. Put lip balm or lipstick on your lips, using a cotton swab.
2. Fold the index card and press your lips on the card at the fold.
3. Unfold the card and write your name below your print.
4. Put the card on a paper towel and dust with the dusting powder. Do not put too much powder on the print.
5. Shake the powder off of the card.
6. Examine the print closely, using a magnifying lens. What type of pattern do you see? Examine each quadrant closely.
7. Then sketch your lip print and match the quadrant patterns to the characteristics listed in the Lip Classification Guide.

Name: _____ Date: _____

LEAF CLASSIFICATION CHART

MARGINS (Leaf's edges)	SHAPE (Overall shape)			VENNATION (Vein arrangement)
Smooth 	Long 	Elliptic (Wide in the center, narrowing at each tip) 	Kidney-shaped 	Pinnate Veins Arranged with one large vein in the center and smaller veins branching off of it. 
Toothed Jagged edge 	Lanceolate (Shaped like a lance with a pointed tip) 	Egg-shaped 	Spoon-shaped 	Palmate Veins Arranged with two or more large veins fanning out from the base of the leaf. 
Lobed With Pointed Tips 	Oblong (Long and wide) 	Heart-shaped 	Round 	Parallel Veins Veins run parallel to one another. 
Lobed Without Pointed Tips 				Netted Veins Veins connect like in a net. 