NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Locard’s Principle Lab**  
Group members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Objectives:** Demonstrate how transfer of evidence occurs.  
 Identify a possible crime-scene location based on trace evidence examination.

**Materials:**  (per group of students) squares of material, ziplock bags, marker, pens, evidence bags, hand lens.  
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**Briefing**: A teacher on teacher assault was committed in this classroom this morning. Your teacher was not involved and did not witness the scene but collected evidence from the suspects and victims at the crime scene which you must test and analyze. You will try to piece together who was at fault and what happened.  
  
**Before you begin:**

* Wash your hands before starting work.
* Refrain from touching your hair, skin, or clothing when collecting evidence.
* Wear gloves while collecting evidence.

**PART 1:**   
1. Collect samples of trace evidence from the 3 potential crime scenes in the room using your cloth swatches.

This is done by rubbing the cloth swatch on the floor, etc. (Make sure that there is trace evidence on your

swatch).

2. Label the evidence in bags with which crime scene they are from.

3. Analyze using a hand lens and record information about each sample in the table below:

|  |  |
| --- | --- |
| **Sample** | **Observations** |
| 1 |  |
| 2 |  |
| 3 |  |

4. Seal & label the evidence bag.  
5. Attach the appropriate evidence label to each bag and return to your teacher.

**PART 2:**

1. Make sure you have gloves on.  
2. One student from your group will be in charge of the actual evidence. They will obtain a sealed bag of evidence from your instructor and write their name, date and time received on the evidence bag.  
3. Record information from the bag:

* Case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Inventory Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Evidence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Date and time of recovery: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Location of recovery: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Recovered by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Suspect: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Victim: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Type of Offence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Using hand lens or other tools provided identify and document trace evidence below:

Observations:

5. Return evidence to bag.  
6. Reseal edge you opened and return the evidence to your teacher.  
7. Match the trace evidence from Crime Scene to one of the locations from your initial tests.  
8. Check with your teacher to see if you are correct.

**Analyzing you data:**

1. Based on your examinations of the trace evidence, which of the three sites was probably the crime scene? Explain how you determined your answer.
2. Did your team correctly identify the crime scene? If not, what could have gone wrong?
3. Explain a possible scenario for what could have happened at the scene this morning.
4. Why were gloves necessary in the collection and handling of trace evidence?
5. What other instruments could be used to improve on your ability to identify evidence?
6. Why was it important to give back your tests and keep them in sealed bags?
7. Why was it important to use similar fabric for your test as that found at the crime scene?

**Extension Questions:**

1. A suspect’s shoes and clothing are confiscated and examined for trace evidence. What kind of trace evidence might be found on the clothes or shoes? List at least there examples of trace evidence from the shoes or clothing that might be useful in linking a suspect to a crime scene.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. A home burglary has occurred. It appears the perpetrator entered after breaking a window. A metal safe had been opened by drilling through its tumblers. A suspect was seen running through the garden. Three suspects were interrogated and their clothing was examined. List at least three examples of trace evidence that might be found on the suspect.
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Some examples of trace evidence are listed below. For each item, suggest a possible location where the trace evidence might have originated. For example, broken glass fragments—headlight from a hit-and-run accident.

|  |  |
| --- | --- |
| **Trace Evidence** | **Possible Location** |
| broken glass fragment | Headlight from a hit-and-run accident |
| sand |  |
| saw dust |  |
| pollen |  |
| makeup |  |
| hair |  |
| fibers |  |
| powders or residues |  |
| metal filings |  |
| oil or grease |  |
| gravel |  |
| insects |  |