

## Locard's Exchange Principle

### "Every contact leaves a trace"

- ▶ Dr. Edmond Locard, director of world's first crime lab
- ▶ When a suspect and victim come into contact at crime scene, the suspect, victim, and scene are all changed

### Objective

- ▶ Identify different surface conditions and which areas were visited
- ▶ Identify or deduce contacts made by individual

### Prelab

- ▶ Suggest a possible location where the following trace evidence might have originated

### Part 1

- ▶ Responsibly tour the school
- ▶ Record your observations of surface conditions in different areas in data table A

### Part 1

- ▶ Combine with another group
- ▶ Discuss surface conditions of different areas
- ▶ Choose three or four with different surfaces; write names of areas on separate cards and place face down on table

### Part 1

- ▶ Each group chooses one card (don't show other group)
- ▶ Go to location on card
- ▶ Put socks over shoes and walk around
- ▶ Remove socks; return to classroom

### Part 1

- ▶ Give your socks to the other group
- ▶ Scrape a sample from the socks onto clean paper
- ▶ Use observations from table A to deduce where socks have been
- ▶ Repeat
- ▶ Do not complete table B

### Part 1 Question

1. Where you able to identify the places visited by the other group? Explain.
2. Review this activity on a separate paper. What went well? What would you change?

### Methodology

- ▶ Lifting: press tape onto surface
  - ▶ Don't overload tape
- ▶ Picking: use forceps
  - ▶ Transfer to container for study
- ▶ Scraping: use clean spatula to dislodge materials onto clean sheet of paper

### Part 2

- ▶ Observe surface of garment and identify any traces of materials adhering to surface
- ▶ Remove traces of materials
  - ▶ Start with lifting, then picking, then scraping
- ▶ Examine with hand lens

### Part 2

- ▶ Identify fragments of evidence
  - ▶ Hairs, threads of fabric, leaves, seeds
  - ▶ If traces are in the form of stains, use ruler to measure approx. area
- ▶ Complete data table B

### Part 2 Questions

1. Did you find hairs adhering to surface? Did the hairs look like human or animal? What can you deduce from this?
2. Did you find seeds? What can you deduce from this?
3. Did you find grass or traces of leaves? What can you deduce from this?
4. Did you find loose threads? What can you deduce from this?