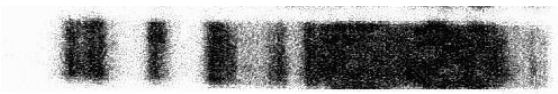
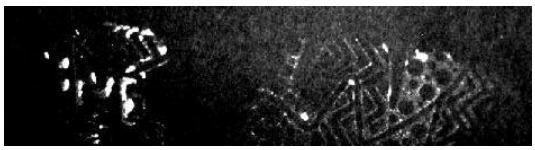
Crime Busters Clinic

Dr. Smith returned from a trip to the office to find the room in shambles. Leaving the room while filling the vials for the Crime Buster team to practice with for only a couple of minutes, the door was not bothered to be locked. Dr. Smith heard a noise outside and rushed to the window in time to see someone pedaling off furiously. Unfortunately, the person was trying to get away so fast that the bike wheel slipped off the pavement sending the bike and its rider flying. Police found a bike track, footprint, and blood & dirt on the sidewalk. In addition to the dumped Crime Buster materials, the police also found hair, fibers, plastic, & a liquid spilled on the ground and a note indicating the vandalism was in retaliation for Dr. Smith's investigative work on water quality at Lemon Lake. That narrowed the suspects since Dr. Smith had only two students whose parents worked at industries on Lemon Lake. You will need to identify the dumped Crime Buster materials, and determine from the evidence which of the suspects perpetrated the crime.

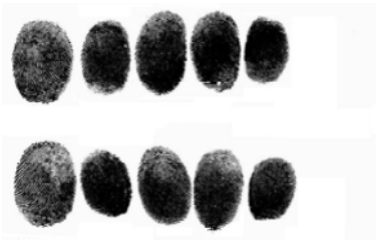
| Vial | Name | Implicates |
|---|---|---|
| Metal | | |
| Liquid | | |
| Powder | | |
| Mixed Powder | | |
| Hair | | |
| Fiber | | |
| Plastic | | |
| Soil | | |
| Fingerprint type<br>Fingerprint | | |
| Ink Chromatogram | | |
| Juice Chromatogram | | |
| DNA |  | |
| Foot Print |  | |
| Tire Track | | |
| Juice Spatter-<br>~~angle?~~<br>~~Height?~~ | | |

| Container # | Contents | Density |
|---|---|---|
| 1 | Corn Oil | .917 |
| 2 | 46% Isopropyl Alcohol | .950 |
| 3 | Distilled Water | 1 |
| 4 | 10% NaCl | 1.07 |
| 5 | 25% NaCl | 1.19 |
| 6 | Saturated NaCl | 1.25 |

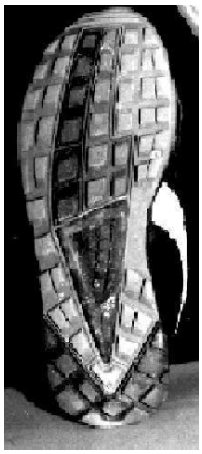
SUSPECT INTERVIEW SHEET

**NAME** Johnston, Jamie **PET** Golden Retriever **AGE & GRADE** 12, 7th **HAIR** Sandy Blond
**FAVORITE DRINK** Tropical Punch **HOBBIES** Working Out **PEN** Vis-A-Vis **Dirt** Clay
**JOB** Stock person a neighborhood store **Plastic** HDPE **HEIGHT & WEIGHT** 5'8"126# **EYES** Hazel **CLOTHING** Cotton Uniform **Parent Works** Electricity Plant (pH problem)
**Chemicals found on** Cu, Sn,Al, $H_2O$, Lemon Juice, $HC_2H_3O_2$, Gypsum, , $CaCO_3$, yeast, flour , $NaC_2H_3O_2$, Vitamin C, gelatin
**INTERVIEW STATEMENT** Hates school. Doesn't see any point to it.

**FINGERPRINTS**

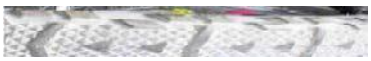


SHOE BOTTOM



**DNA**

**Tire**

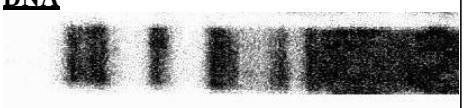


**NAME** Carlyle, Cary **PET** Persian Cat **AGE & GRADE** 13, 7th **HAIR** Gray
**FAVORITE DRINK** Grape Illusion **HOBBIES** Baking & Sewing **PEN** Papermate **Dirt** Sand
**JOB** Mows neighborhood lawns **Plastic** PVC **HEIGHT & WEIGHT** 5'6",132# **EYES** Gray
**CLOTHING** Nylon vest, wool shirt & Blue jeans **Parent Works** Steel Plant(metals)
**Chemicals found on** Mg, Zn, Fe, $H_2O_2$, rubbing alcohol, $NH_4OH$, NaCl, Sand, $NaHCO_3$, cornstarch, sugar, Alka-Seltzer
**INTERVIEW STATEMENT** Just doesn't have enough time to study. Parents applying pressure.

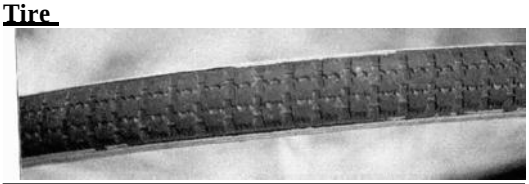
**FINGERPRINTS**

SHOE BOTTOM

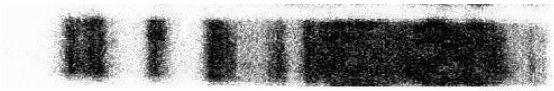
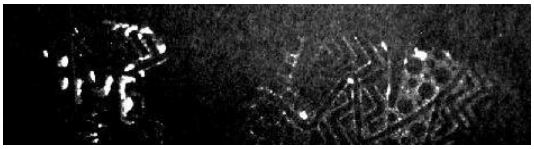
**DNA**



**Tire**



Answer Sheet

| Vial | Name | Implicates |
|---|---|---|
| Metal | Zinc | Cary Carlyle |
| Liquid | Hydrogen Peroxide | Cary Carlyle |
| Powder | Sodium bicarbonate (Baking powder) | Cary Carlyle |
| Mixed Powder | Sand and Salt | Cary Carlyle |
| Hair | Cat | Cary Carlyle |
| Fiber | Wool | Cary Carlyle |
| Plastic | PVC | Cary Carlyle |
| Soil | Sand | Cary Carlyle |
| Fingerprint | Fingerprint type Whorl | Cary Carlyle |
| Ink Chromatogram | | No one |
| Juice Chromatogram | | No one |
| DNA |  | Cary Carlyle |
| Foot Print |  | Cary Carlyle |
| Tire Track | | No One |
| Juice Spatter- angle? Height? Low | | 90 Drop |