

EXERCISES: "Why Sample" - 3.8M fine over lead poisoning

1) health issues: symptoms - appetite loss, concentration problems; behavior prob, low IQ  
 • BRING UP LEAD/CALCIUM connection + age impact

cause - eating paint chips or toddler  
 • BRING UP ROUTES OF ENTRY ingestion/inhalation/absorption (DIFFERENTIATE ABSORPTION)

2) legal issues: - where was child poisoned - apartment/day care/school/etc.?  
 - how would you test + why (paint/water/soil) floor/sill/well  
 - draw mock map + give scenarios

40mg/ft<sup>2</sup> PLS  
 250 " WINSILL  
 400 ppm SOIL CHILD BARE  
 1200 ppm AIG REST OF YARD

BRING UP DEFINITIONS OF LEAD POISONING (10dl action) [10mg/dl]  
 10-25 no clinical symptoms (cognitive develop/growth/behavior) 1-5 yrs old  
 high  $\geq 70\text{mg/dl}$  - seizures, coma, death

• BRING UP IMPORTANCE OF ACCURACY VS. PRECISION

closeness to actual value vs. ability to get very similar values often  
 [VERITY] [CONSISTENCY]

(2)

EXERCISES: "Why Sample" - OTHER AILMENTS (asthma, SBS, BRI + IAQ)

1) health issues: symptoms - asthma, upper respiratory issues, eyes, nose, headaches, etc

- BRING UP RESPIRATORY AILMENTS LIST

cause - breathing; inhalation

- BRING UP ROUTES OF ENTRY inhalation

2) legal issues: where/how was subject impacted - apartment/job location/on transit?  
 - how would you test & why (air monitoring; types of monitoring/active; direct; passive; lab)

- - draw mock map + give scenarios

• BRING UP TYPES OF SAMPLING + PROS + CONS (PASSIVE VS. ACTIVE) (PASSIVE VS. ACTIVE)

- BRING UP IMPORTANCE OF ACCURACY VS. PRECISION

(3)

## EXERCISES: "Routes of Entry" - ROUTES + STATES OF MATTER

1) health issues: solids / liquids / gases → fumes + dusts; mists + vapors; [C] - concentration

- BRING UP TOXICITY VS HAZARD

- BRING UP FACTORS AFFECTING TOXICITY + HAZARDS

- BRING UP HAZARDOUS WASTE SITES VS FACTORIES VS OFFICES / SCHOOLS

- BRING UP RECOGNITION / EVALUATION / CONTROL CONCEPT

- BRING UP PPB VS PPM - DOSE ISSUES; PEL / TLV (LEGAL VS. GUIDELINES)

2) legal issues: OSHA / RCRA / CERCLA / SARA - PEL

- CONCENTRATION (PEL)

- MONITORING / SAMPLING OVERVIEW

- 5 W'S OF MONITORING (WHO / WHAT / WHY / WHERE / WHEN)

- AREA VS. PERSONAL

- SAMPLE TYPES (DETAIL)

3) REVIEW TB example BEFORE / AFTER discuss

- GIVE CAT DANGER SCENARIO W / MAP

- GIVE HOLIDAY BAKING (CO<sub>2</sub>) W / MAP

EXERCISES: "Recognition + Evaluation"

1) approximate exercise - without using a ruler how large is a given room

using <u>hand</u> dimension	- small measurements	(window)	} HUMAN DIMENSIONS
" <u>pacing</u> "	- large rooms	(floor)	
" <u>arms length</u> "	- " "	(floor)	
" <u>finger</u> "	- small measurements	(window)	
" <u>ceiling tile</u> "	- large "	(floor)	} FURNITURE DIMENSIONS
" <u>floor tile</u> "	- " "	(floor)	

groups of 4; " each given specific style of measurement  
 " after using style; measure style w/ ruler & get measurement  
 " discuss precision; accuracy; observation; mapping

2) observation exercise - draw pictures for 2 min or less; ID as much as possible

PIC # 1 - how many items? / are cylinders stacked up? how many chains?  
 which drum is closest to viewer?  
 which pipe is highest? longest based on picture?  
 which bag is in front? left or right?  
 is there something in the buckets? leaning left or right?

EXERCISES: "Recognition + Evaluation" - CONTINUED

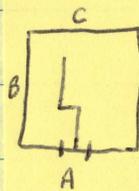
2) Observation exercises - FIRE important vs. peripheral

- PIC # 2 - how many levels in house? ✓
- " " windows on top floor? ✓
- " " fire men in picture?
- " " horses?
- " " floors are on fire? ✓
- " " lamp posts?
- " " shutter on barn (panels)?
- is there a desk on barn door? desk bottom to top or reverse?
- " " trees in picture?

- NAME HAZARDS
- fire; smoke
  - drug lab scenario
  - sampling strategy

- PIC # 3 - how many firemen?
- is respiratory protection being used?
- how many hoses?
- is a flashlight being used?
- is there a ladder?
- is there a container with a "dangerous"
- does the large tank have a gauge

WHERE AM I?



- walk into room
- take 5 steps straight
- take 3 steps left
- take 7 steps right
- make 180° turn

- 1) where am I in room - facing wall A
- 2) would I be looking out door?
- 3) what would I have to do to see out door (3 steps left + 90° turn)

PIC # 4 - based on routes of entry; why is cartoon name?

ROOM LOCATION EXERCISE (which wall am I facing?)

## EXERCISES: "Sampling Protocol" - QTRAN vs. DRAGER TUBES

- 1) sampling issues: sample room for  $\text{CO}_2$  levels using QTRAN/DRAGER
- compare results: accuracy / precision
  - pros + cons of each - accuracy; immediacy; cost; durability

- 2) real-life scenarios: prep 2 + work out in two groups.
- each group does presentation + critiques other group.

### SCENARIOS

- WD40 in EAB (report) lubricant
- atopy + xylene / formaldehyde
- pediatric operating room + Nitrous Oxide
- mercury in home (Santitas)
- fiberglass dust + contact dermatitis
- CO + underground daycare center burnt (converted milk plant)

WHY SAMPLE?

- 1) HEALTH ISSUES
- 2) LEGAL ISSUES

TOXIC VS HAZARDOUS \*

- 1) NYCHA - Pb SAMPLING HOUSING
- 2) BMW - sanding / cutting  
carburetors  
save precious  
metals CHROME
- 3) HOSPITALS - nylone / formaldehyde  
MERCURY  
TUMOR ANALYSIS
- 4) CITICORP - chemical inventory (RTK)  
PAINT / CLEANING MATERIALS
- 5) IAQ - not done  
WPHO in ventilation system  
dine in computer room BANK  
NO PAPER

# 3.8M fine vs. city over lead

By BARBARA ROSS and LEO STANDORA  
DAILY NEWS STAFF WRITERS

A Brooklyn jury awarded an 8-year-old boy and his mother \$3.85 million yesterday after finding the city was responsible for the child's lead poisoning.

It was one of the costliest lead-poisoning verdicts ever against the city, legal experts said.

Lamont Stoves gradually ingested toxic levels of lead by eating paint chips as a toddler in his mother's city-owned apartment at 870 Madison St. in Bedford-Stuyvesant.

Lawyer Alan Konigsberg, who represents Lamont and his mother, Judy Powell, now of Youngstown, Ohio, told the jury the city knew about the lead hazard but did nothing to correct it.

He charged city doctors tried to cover up Lamont's condition when they learned how bad it was.

The boy's IQ is below average at 88. He has suffered a loss of appetite and has had problems concentrating and behaving in school, Konigsberg said. He currently is repeating the first grade for the third time.

The boy's mother testified that when the city bought the late 19th century Madison St. building in 1991, inspectors found plenty of peeling paint but did nothing about it.

Lamont lived in the Brooklyn apartment until he was 5, but records showed he was first diagnosed with lead poisoning at age 2.

City lawyers were not immediately available for comment, but the city generally appeals large damage verdicts.

1 LEGAL

2 ROUTE OF ENTRY \*

- BREATHE
  - EAT DRINK
  - ABSORB THRU SKIN
- } DOSE (CONCENTRATION)

6 SYMPTOMS

7 YOUR JOB

8 TARGET AGE UPTO 6YRS