WAS SOMEONE STEALING THE TREES?

An officer with the Department of Natural Resources was called to a farm where a landowner had discovered missing trees. The trees were black walnut, a valuable wood used to make expensive furniture. The officer found six stumps where once there were living trees. The limbs and branches were left behind. Scattered around the woods were 20 empty beer cans.

The officer examined the area and found tracks left by a truck leading across a neighbor’s field; the perpetrator of the theft had then cut through the boundary fence. By following the tracks, the officer found where the truck had slid sideways and scraped against a tree, leaving a small smear of paint. These pieces of evidence were photographed and sampled.

The landowner remembered having seen similar tire marks leading into another wooded area two miles up the road. The officer investigated these marks and found several more black walnut stumps and more empty beer cans. The officer documented numerous forms of evidence—a paint sample from the truck, tire tread impressions, and one fingerprint lifted from a beer can. The thefts stopped, and the case was considered unsolved.

Two years later, a man was caught stealing black walnut trees a couple of counties away, and his truck was impounded. The officer compared the original paint sample to matching paint from the truck. A receipt in the truck from a veneer mill (veneer is the thin layer of high-value wood put on the surface of low-quality woods to be used in furniture) suggested that the man had been selling logs for some time.

The paint on his truck was consistent with paint found at the crime scene, and his fingerprints matched the fingerprint found on the beer can at the scene. Based on the evidence, he was convicted, fined, and sent to prison for six years. An observant investigator was able to collect sufficient evidence for a jury to find the man guilty of stealing the trees.
Thursday, August 29, 2013

This is where bell work will be if not on the white board (→)

You need to get used to looking for this daily when you come in.

Most likely this will be in question form.

You will write down the DATE, QUESTION, and ANSWER for 3 points daily. Trust me, this adds up.
Chapter 1
Observation Skills
Scenario: Someone Was Stealing Trees

- A farmer reported several valuable trees had been cut down and stolen.
- Investigators followed the clues, observing tire tracks, traces of paint, and other evidence.
- Police matched paint samples to the truck used in the theft.
Chapter 1  *Observation Skills*

By the end of this chapter you will be able to:

- Define *observation* and describe what changes occur in the brain
- Describe examples of factors influencing eyewitness accounts of events
- Compare the reliability of eyewitness testimony with what actually happened
- Relate observation skills to their use in forensic science
- Define *forensic science*
- Practice and improve your observation skills
Introduction

- One of the most important tools of the forensic investigator is the ability to observe, interpret, and report observations clearly.
- The forensic examiner must be able to
  1. Find — identify the evidence
  2. Document — record the evidence
  3. Interpret — accurately determine the significance of the evidence
The trained investigator collects all available evidence, without making judgments about its potential importance.

- That comes later!

Knowing which evidence is significant requires the ability to recreate the series of events preceding the crime.
A crime scene is often laid out in a grid to ensure that all evidence is found.
What is Observation?

- What a person perceives using his or her five senses.
- We are constantly collecting information through observations: sight, hearing, smell, taste, and touch.
  - We cannot pay attention to everything all at once.
    - We pay attention to things likely to be important like changes in the environment: new movement, sound, etc.
- Filtering is an unconscious process that helps the brain deal with all the stimuli and information that bombards it.
How information is processed in the brain:
Our brains play tricks!

- **Perception** (interpreting information received from the senses) is **faulty**!
  - Not always **accurate**
  - Doesn’t always **reflect reality**

- **We fill in information** that isn’t there.
  - Ex. Creamy pink dessert – perceived as **strawberry**, but is actually **vanilla** flavored!
If you can read this, you must be really smart!
Look at the chart below and do your best to say the color, not the word:

Blue   Red   Orange
Black  Yellow Green
Purple Yellow Pink
Yellow Blue   Black
Red   Purple  Yellow
Black  Orange Red

This is an example of left brain/right brain conflict! Your right brain tries to say the color, but your left brain insists on reading the word.
What do we use/need in order to make observations?  
(Hint: we have them!)
If you don’t know how to use a piece of equipment during a lab, what should you do?
What three things must a forensic scientist (FS) be able to do with evidence?
Observations by Witnesses

Many things influence a witness and, therefore, impact his or her recollection and account of the situation.

- Focus and Concentration
- Observations are affected by:
  - Emotional states
    - Very upset, happy, or depressed – less likely to notice things
    - Stress and fear interfere with an accurate memory
      - Ex. Descriptions during a bank robbery
- Whether they were **alone**, part of a **group**, or **near others**
- What **type** of and **how much activity** was going on around them
- Our ability to observe is actually heightened during **unusual situations**.
  - Ex. Where were you during the attack on the **World Trade Center Towers**, 9/11/2001?
Eyewitness Accounts

- Eyewitness accounts of crime scene events **vary considerably** from one person to another.
- Crime-scene reports often vary, due to:
  - level of interest
  - stress
  - concentration
  - amount and kind of distractions present
  - prejudices
  - personal beliefs
  - motives
  - any lapse in time since the event
Name three reasons why Crime Scene Reports may vary with eyewitness accounts.

Remember:
Bell work will be graded tomorrow so all of your questions need to be answered! 😊
The Innocence Project

- Created by Barry C. Scheck and Peter J. Neufeld at the Benjamin N. Cardozo School of Law,
- Beginning in 1992, used DNA to examine post-conviction cases
- Faulty eyewitness identifications accounted for up to 87% of the wrongful convictions
What did the Innocence Project use to determine if people were wrongly convicted?
Observation vs. Inference

• Making **observations**
  ○ Using your five senses:
    ▪ **Sight, Hearing, Smell, Touch, and Taste**
  ○ You learn **data** – facts, figures, and other evidence

• Making **inferences** (inferring)
  ○ A logical **interpretation** based on **observations or prior knowledge**
What can we infer about this picture based upon some observations we can make?
Identify the sentences in the story as observation or inference:

1. You are walking alone through a dark cemetery.
2. You look at the luminous dial of your watch and it reads 10:00 P.M.
3. You begin to sense that someone or something is nearby.
4. Suddenly, you feel something touch the sleeve of your jacket.
5. You try to run but something holds you back.
6. You are sure it is going to harm you.
7. Frightened, you begin to struggle.
8. You get caught in a tight hold.
9. You hear the bark of a dog nearby.
10. You think you recognize the bark.
11. It sounds like your dog Sammy.
12. If only you could scream, he would come.
13. You try to scream, but you can’t make a sound.
14. Your voice returns and you call to Sammy.
15. Quickly he is there, licking your face.
16. Then you discover that you have been stuck on the branch of a tree.
When evaluating eyewitness testimony, the investigator must **discriminate between fact and opinion**.

- It is necessary to **ignore** any **inferences** the witness makes.

After the witness examination, the examiner tries to **piece together the events** (facts) into a **logical pattern**, then determine if this pattern is **verified** by the **evidence**.
How to be a Good Observer

- Observe **systematically**
  - Start at **one part** of a crime scene and run your eyes slowly **over** every space
  - Look carefully at details of each piece of **evidence**
  - Do not assume you will **remember** everything

- Turn off **filters**
  - Consciously pay attention to **all** details
  - Do not pay attention to just what you **think is important**
  - **All details** are potentially **important**
- Collect **information first**, interpret data later
  - Look for **patterns** and make **connections**
  - More information yields better interpretations
  - Prejudices exist everywhere—
    - eyewitness accounts
    - your own **thinking processes**
- **Documentation, Documentation, Documentation**
  - Write down and photograph **as much information as possible**
  - Be aware that memory is **faulty**
  - Remember that our brains tend to **fill in gaps** in our perception
Observations in Forensics

- Forensic comes from the Latin word forensis, which means “of the forum”
  - The forum was an open area where scholars would gather to debate and discuss issues
  - It was the historical equivalent to modern-day courts
  - Today, debating is often still called forensics.

- Forensic Science, however, is strictly concerned with uncovering evidence that stands as fact.
  - This can be used to help in legal matters, such as crimes.
What Forensic Scientists Do

• **Find, examine, and evaluate** evidence from a crime scene.
  ○ The key skill for doing this is **observation**.

• **Specialists** deal with certain types of evidence
  ○ **Ballistics** – bullets and firearms
  ○ **Pathologists** – examine bodily injuries for cause of death
  ○ Textile experts, Blood-spatter experts, Vehicle experts, Animal experts, etc.

• **Even Police Officers** need to be trained to have good observation skills.
• **Study** situations
• Find **clues** in ordinary details using **analytical skills**
• Work **backwards** from the evidence to what led up to the crime with **deductive reasoning**
• Be patient
• Practice
Summary

- The **environment** and our natural **sensory filters** affect our ability to observe.
- Eyewitness reports can be **correct**, **faulty**, or a little of **both**.
- Acquiring good observation skills takes **practice** and **training**.
- Forensic scientists:
  - Find and Document Evidence
  - Evaluate and **Interpret**
  - Provide **expert testimony** to courts