



Forensic Science 25
Ward 2009 adapted from http://sciencespot.net/

### Find the 11 differences between the two pictures.



Source: http://www.smart-kit.com/wp-content/uploads/2007/09/ballon-spot-the-difference.jpg

## What is testimonial evidence?

**Testimonial evidence** includes <u>oral</u> or <u>written</u> statements given to police as well as <u>testimony</u> in court by people who witnessed an event.

Eyewitness accounts can be a useful tool in helping investigators with analyzing a <u>crime scene</u>, but are not viewed to be highly <u>reliable</u>. In addition, eyewitness identifications (*right or wrong*) can have a big influence on the outcome of an <u>investigation</u> or trial.

**People are likely** to view the same scene in differently depending on their **positions**, line of **sight**, **familiarity** with the area, and other factors.

- The Bunny Effect CBS 60 Minutes Video Clips
- Testimonial Flaws & Memory CBS 60 Minutes Video Clips
  - Making False Memories BBC Video Clip

### **Memory Challenge**

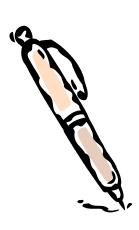
#### **Directions:**

You will have <u>30 seconds</u> to view the <u>next screen</u>.

Try to memorize all 20 items you see!

You are NOT allowed to write anything down You CANNOT talk to anyone else.



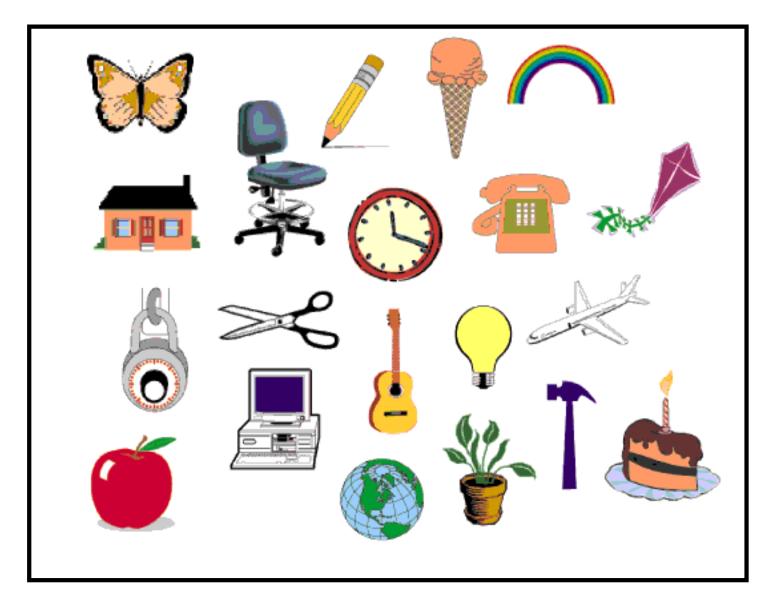






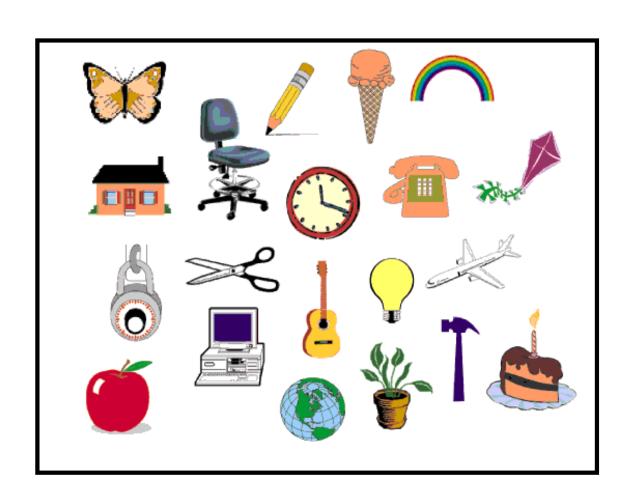


### Items to remember ...



# What do you remember?

You have 2 minutes to list as many of the items as you can!



How did you do?

All 20 – Awesome

15-19 – Great

10-14 – Pretty swell

5-9 – Could be better

4 or Less – Wake up

# Did you know?

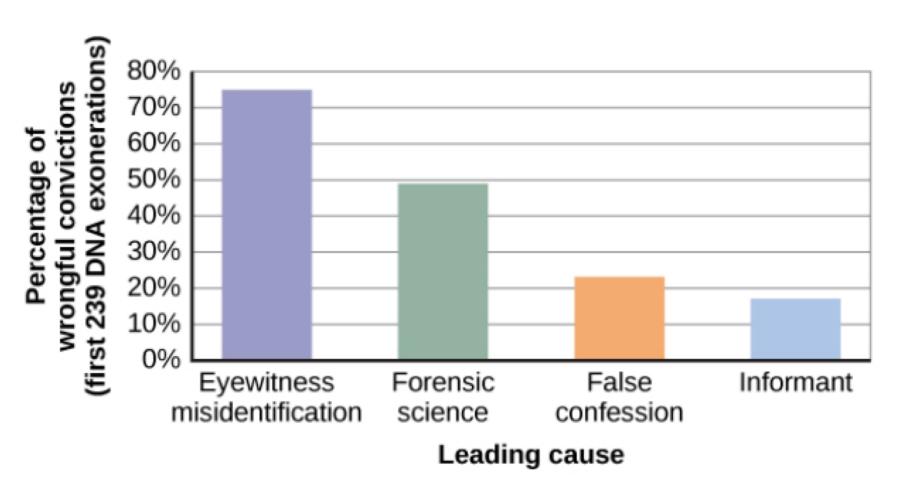
According to The Innocence Project (2008)

"Eyewitness misidentification is the single greatest cause of wrongful convictions nationwide, accounting for more than 75% of convictions overturned through DNA testing."

**Still**, the criminal justice system profoundly relies on eyewitness identification and testimony for investigating and prosecuting crimes (Wells & Olson, 2003).

What factors affect a person's memory and their ability to identify a suspect?

# Leading Cause of Wrongful Conviction in DNA Exoneration Cases (Source: Innocence Project)



### Witness Factors

### • Age:

- With actual culprits, both young & elderly perform best
- More mistakes are made when actual culprit is not in lineup.
- Race (The Cross Race Effect CRE)
  - people recognize faces of their own race better than of others.
- Illicit substances:
  - Alcohol & drugs can alter perceptions..
- Other witnesses / Media:
  - Use open-ended questions
  - Isolate witnesses from each other & focus on the common

# Crime Scene & Suspect Factors

#### Trauma of the event:

- Focused on the moment not details.

#### • Time:

A longer view helps with accuracy & recall

#### • Un-Attractive faces:

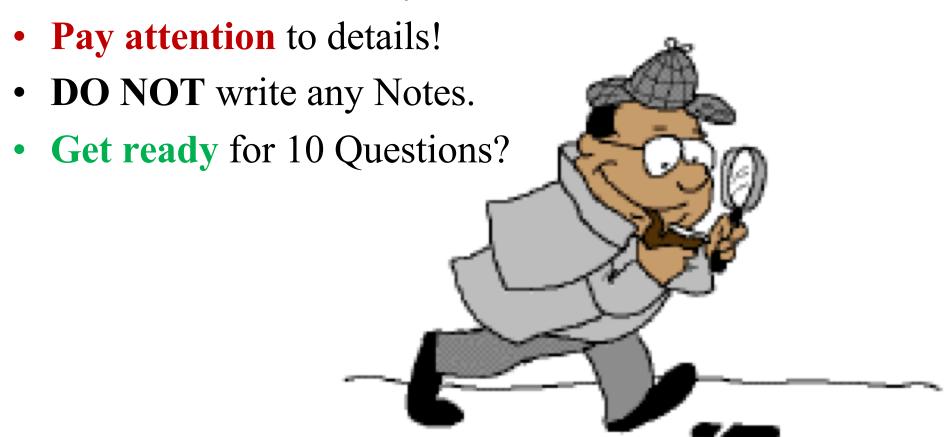
- Studies show these faces are recalled better.
- Body piercings & tattoos increase accuracy.

### • Time of day:

- Better lighting, lack fatigue or more alert during the day

### Crime Scene Challenge

- Observation skills TEST:
- Use <u>2 minutes</u> to study the crime scene.





### Answer each question below.

Yellow 1. What color coffee mug was in the picture? Blue Red 2. When was the deadline? Yesterday Today **Tomorrow** 11:05 1:55 3. What time was on the clock on the wall? 10:40 Six Eight 4. How many sticky notes were on the whiteboard? Four 5. Which of the following was NOT in the picture? Stapler Trash Can Printer 6. What was the name on the plaque on the desk? Bill Brian Carl 7. What color was the victim's shirt? Blue Red Black One Two 8. How many plants were in the picture? None 9. What was the color of the marker in the desk drawer? Red Blue Green 10. Where was the book in the picture? In the trash can On a box Under the body

Source: http://forensics.rice.edu/html/picture\_begin.html

### **Sketch Artist**

https://www.youtube.com/watch?v=2X4Lubyqb2M

The Power of Observation

# **Tourist Trap**

#### **TOURIST TRAP**

1. How do investigators document a bite mark?
<ul> <li>a. – They photograph the bite mark using different lighting effects.</li> <li>b. – They use an L-shaped ruler to document the measurements of the bite mark.</li> </ul>
2. How was the main suspect identified? victim picked him out of a photo array.
3. How did the police get Cornet into custody? He attacked another man.
4. What does a forensic odontologist do? studies dental profiles
5. How do investigators use the casts or models made from a suspect's teeth?
<ul> <li>a) – Wax impressions can be made to show the dental profile and used to identify the perso who made the bite mark.</li> <li>b) - The casts are used to make bite mark patterns on a plastic sheet that can be compared to photographs of the bite marks.</li> <li>6. What was his alibi?</li> </ul>
<ul> <li>6. What was his alibi? suspect said he was at work.</li> <li>7. Did his alibi hold up in court? No</li> <li>8. What were the findings of the jury: Guilty</li> <li>9. What two things helped reduce this type or crime?</li> </ul>
<ul> <li>a) - The police increased their surveillance of the area.</li> <li>b) - Rental cars removed the company bumper stickers and license plates were changed so they would not be easily identified</li> </ul>