CSI Web Adventures

Go to http://forensics.rice.edu/ and click the section for “Case One: Rookie Training” to find the answers to complete this worksheet. Answer the Quick Poll question and click “Play game”.

1. Go to the “Forensic Biology” section and choose “Follow Greg” to answer these questions.

A. What is DNA? Answer these questions as you work through this section.

What does the abbreviation DNA represent? __________________________________________

Where is the DNA located in a cell? _______________________

Choose the three correct about DNA.

How can forensic scientists use DNA in a crime? ________________________________________________

Which suspect matches the sample from the crime scene? ________________________

B. What is a DNA Profile? Answer these questions as you work through this section.

Complete: A DNA profile is a ___________ of one person’s genetic information.

What does CODIS represent? ________________________________________________________________

How many markers are used to make a DNA profile? ________

C. How do you process DNA? Answer these questions as you work through this section.

What are the four steps in processing DNA? _____________________________________________________

What is used to collect a DNA sample from Greg? ______________ Where? ______________

What technique is used to copy the DNA markers? ____________________________________________

What does the Genetic Analyzer do? ____________________________________________________________

Follow the steps to process the DNA sample.

Click Begin Analysis and follow the steps. Which DNA profile matched the sample? ________

Complete the Exit Exam.

2. Go to the “Toxicology Lab” section and choose “Learn About The Lab” to answer these questions.

What do forensic toxicologists do? ________________________________________________________________

How much of each is needed for testing? _____ of vitreous humor, _____ of blood, and _____ of urine

What else might be tested? __________________ or ______________________________

Sort the evidence into the three boxes. What was your time? ______________

What instrument is used to screen for alcohol? ____________________________________________________

What test can tell us if certain drugs are in a sample? ________________________

What does the GC/MS instrument do? ___________________________________________________________

Complete: Every __________________ has its own specific pattern of ________________.

What chemicals were found in the blood sample? __________________ and __________________________

Take the survey by clicking on the computer.
3. Go to the “Firearms & Tool Marks” section and choose “Training Demos” to answer these questions.

A. Parts of a Gun
Where do you find rifling on a gun? ________________________________
What is found in the magazine? ________________________________

B. Part of a Cartridge
What produces the spark to ignite the gunpowder? ______________________
What measurement is used to determine the caliber? ___________________________

C. Bullet Characteristics
What term refers to tiny, microscopic scratches on the surface of a bullet? _____________________________
What is a rifling impression? _________________________________________________________________

Firing Range - Answer the questions by “shooting” the correct answers. What was your score? ______

Evidence Analysis
What is the caliber of the bullet? ____________ What kind of rifling is on the bullet? ________________
What is its rifling number? ____________ What type of gun was used to shoot this bullet? ________________
Which suspect’s gun was used to shoot the bullet? ________

4. Choose the “Medical Examiner” section to answer these questions.
What is the first thing an examiner does when a person arrives for autopsy? ________________ ________________
Try the autopsy and follow the directions to complete it.
What was the cause of death in this case? ________________ ________________
What percentage of deaths is accidental? ________% What percentage is due to homicide? _______%
What was the manner of death for each case?
#6877 ________________ #11989 ________________ #23380 ________________
#4775 ________________ #94575 ________________

5. Choose the “CSI Ethics” section to answer these questions.
Forensic scientists must be ____________________, ____________________, ____________________, and ____________________.
Answer the questions to finish this section.

Ready for a challenge? Return to the home page and try
Case Two: The Burning Star to put your CSI skills to the test.