CSI Experience: Rookie Training
Case 1

Directions:

In this activity you will learn about several techniques that are used to process physical evidence in a crime lab. In addition to firearms and tool marks you will review some other types of evidence previously covered in the course.

To get started go to: http://forensics.rice.edu/

You will visit 4 specialty areas. Pay attention to your instructor as each section requires you to answer a series of follow up questions to solve a case they are working on.

Answer the following questions as you proceed.

Forensic Biology:

Follow Greg and answer the following questions.

What is DNA?

After taking DNA from Suspects A & B - what 3 conclusions did you draw?

1. 
2. 
3. 

Which suspect matched the crime scene DNA?

What is a DNA profile?

What is the name of the FBI’s DNA database?

In your own words, explain why forensic scientists use DNA markers.

How many markers are typically used by labs?

What are the four basic steps to process DNA?

Why use buccal cells for DNA processing?

What does “lyse” mean?

What is the name of the process used to amplify DNA?

How is the amplified DNA sorted?

What # did the DNA profile match?
Why was Greg’s DNA profile in CODIS?

**Toxicology Lab:**
Where is vitreous humor normally located?
How is a maggot milkshake used?
Why do toxicologists analyze so many different body fluids?
Who invented Forensic Toxicology?
What is the name of the document you signed the evidence out on?
What is headspace?
What does the ELISA test for?
Define positive control.
Define negative control.
What is the name of the confirmatory test you conducted?
What is the chemical formula of caffeine?
What other substance is found? (Name & Chemical formula)

**Firearms and Toolmarks:**
Watch the training demos and then go to the firing range.
Record your score: ___________
Define class characteristics.
Define individual characteristics.
What type of handgun had the correct class characteristics to match the bullet?
What type of evidence is individual enough to match a bullet to a gun?

**Medical Examiner:**
You have 2 choices - Pick one and answer the appropriate questions:

Choice A: Conduct the autopsy -
What is the CAUSE of death?
What is the MANNER of death?

Choice B: Skip the autopsy -
Define algor mortis -
Define rigor mortis -
Define livor mortis -

Determine the manner of death for the following cases:

6877 -
11989 -
23380 -
4775 -
94575 -

CSI Ethics:
The Forensic Science Code of Ethics states that you must be:
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