

# CSI Web Adventures

Name \_\_\_\_\_

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.**

# Forensic Science A to Z Challenge

Name \_\_\_\_\_

Twenty-six words are hidden in the puzzle along with a mystery word. Use the clues provided to figure out each word and then find it in the puzzle. The words will all have at least one bend, they do not go diagonally, and no letters will be used more than once. When you are done, unscramble the letters that were not used to identify the mystery word.

- A \_\_\_\_\_ Might be used to destroy evidence
- B \_\_\_\_\_ A, B, AB, O
- C \_\_\_\_\_ You might find evidence here.
- D \_\_\_\_\_ Person who investigates a crime
- E \_\_\_\_\_ A person who saw something
- F \_\_\_\_\_ This might match someone's shoe
- G \_\_\_\_\_ This may show if someone shot a gun
- H \_\_\_\_\_ May link a suspect to a crime scene
- I \_\_\_\_\_ Not guilty
- J \_\_\_\_\_ Decides the outcome of a case
- K \_\_\_\_\_ Taking a person against their will
- L \_\_\_\_\_ You don't want to break these
- M \_\_\_\_\_ Instrument used to analyze evidence

B L S N U G R I R A P H F  
M O H W O E P N G Q U E S  
I O O G U U T T Y O N I T  
C D T D N D O Y L B N E I  
R X R E S I O C O S O T O  
O R V E R D F H P E C E N  
S A Y R T I N R E R H N S  
C O N A T C O O M V A T I  
C P R C A R S M O A I R S  
R E I E S S E O S T S O N  
I A P P J U N E T I E S U  
M N S I N R T K C O L A L  
E D D N G Y I S H N S W T  
S I E E Y E W E R O R S R  
C K T E R I D G T P E Z A  
E N E C T I V E E L O I V

What is the mystery word? \_\_\_\_\_

- N \_\_\_\_\_ Dogs may use these to find accelerants
- O \_\_\_\_\_ Investigators make these at a crime scene
- P \_\_\_\_\_ Might be used to find the truth
- Q \_\_\_\_\_ These need to be answered to solve a crime
- R \_\_\_\_\_ Something you analyze in a fingerprint sample
- S \_\_\_\_\_ Documents evidence at a crime scene
- T \_\_\_\_\_ Evidence in small amounts
- U \_\_\_\_\_ Type of light that helps us find evidence
- V \_\_\_\_\_ Guilty or not guilty
- W \_\_\_\_\_ Might be matched to a weapon
- X \_\_\_\_\_ Helps you take a closer look inside a body
- Y \_\_\_\_\_ Males have this in their DNA
- Z \_\_\_\_\_ Hopefully you have more evidence than this!