

CSI: THE EXPERIENCE WEB ADVENTURES

CONTENT OVERVIEW

CASE ONE: ROOKIE TRAINING

Level: Beginner

Forensic Biology:

- Structure and function of DNA
- DNA profile
- DNA processing

Toxicology Lab:

- Toxicological evidence, chain of custody
- Screening tests (headspace gas chromatography, ELISA)
- Confirmation test (gas chromatography/mass spectrometry)

Firearms & Toolmarks:

- Parts of a gun, cartridge
- Firearm identification based on bullet characteristics:
 - Class characteristics
 - Individual characteristics

Medical Examiner:

- External and internal autopsy
- Time of death based on rigor mortis, algor mortis, and livor mortis
- Manner of death

CSI Ethics:

- Code of ethics
- Ethics questions

CASE TWO: CANINE CAPER

Level: Intermediate

A dog handler is found dead at Las Vegas Dog show – was it an accident or foul play?

- External autopsy
- DNA profiling
- Comparison of mitochondrial DNA
- Indented writing
- Toxicology (ELISA, color test)
- Serology
- Forensic odontology
- Hair comparison and analysis
- Fingerprints

CSI: THE EXPERIENCE WEB ADVENTURES

CONTENT OVERVIEW

CASE THREE: BURNING STAR

Level: Advanced

A burned-out car is found in the desert – with a burned body inside. Who is it? Was it an accident or murder?

- DNA profiling, family comparison
- Fingerprint analysis (detailed analysis of class and ridge characteristics)
- Shoeprint collection and analysis
- Facial reconstruction
- Toolmark comparison (knife striations)
- Digital forensics

CASE FOUR: BITTER PILL

Level: Advanced

A house fire leaves one person dead, another in the hospital. Was it arson? Did the victim really die from the fire?

- Fire investigation
 - Fire scene processing
 - Burn pattern analysis
 - Debris analysis (gas chromatography)
- External and internal autopsy
- Spectrophotometry
- Toxicology (ELISA, headspace gas chromatography, GC/MS)
- Fingerprints
- Neuroscience (effects of prescription drugs on the brain)

CASE FIVE: FATAL INTERACTIONS

Level: Advanced

A doctor at a local pain clinic is found shot. Was it suicide? Who would have reason to kill her?

- DNA profiling
- Shooting scene reconstruction (bloodstain analysis)
- Bullet comparison
- External autopsy
- Fingerprints
- Digital forensics
- Toxicology (drug classes and drug interactions)