

CSI: HEARTLAND

HEC Region *FloridaLearns STEM Scholars*  
Get “Hands On” With Forensic Science

Participating School Districts



**Panhandle Area Educational Consortium**

Patrick L. McDaniel, Executive Director

- Calhoun
- Franklin
- Gadsden
- Gulf
- Holmes
- Jackson
- Jefferson
- Liberty
- Madison
- Taylor
- Wakulla
- Walton
- Washington



**Heartland Educational Consortium**

Dr. Debra Elliott, Executive Director

- DeSoto
- Glades
- Hardee
- Hendry
- Highlands
- Okeechobee



**North East Florida Educational Consortium**

James Surrency, Ph.D., Executive Director

- Columbia
- Flagler
- Gilchrist
- Lafayette
- Levy
- P.K. Yonge
- Putnam
- Union

Gifted and talented students from the six Heartland Educational Consortium (HEC) districts gathered for a lesson in CSI on Saturday, February 22<sup>nd</sup>, as part of the Consortium’s second annual CSI STEM (Science, Technology, Engineering and Mathematics) Day. The day was designed to increase student awareness of the role of STEM in forensic science, as well as to provide insight into the workings of a crime scene investigators’ day-to-day routine.

Highlands County Sheriff Susan Benton has been a strong supporter of the program, and this year, as in the past, she greeted the students and shared her thoughts on the significance of STEM education throughout their high school careers and beyond. Her CSI Unit members were out in full force at the forum to educate and raise awareness, and perhaps even create a CSI career interest among the students.

Jeff Fenell, Kathy Perez, John Wilkinson, Stacy Andrews, Jason Dionne, Mike Helms, and Manny Gonzales demonstrated to the students a number of CSI hands-on opportunities. Students participated in collecting fingerprints, making plaster molds of tire tracks and footprints, as well as calculating direction and velocity of blood splatter evidence. Several students commented that they had no idea that math figured so heavily into crime scene analysis. CSI Tech Perez shared that those connections between academic content and real world application are just the kind of “ah-ha” moments that they are hoping to create through this forum.

Students got to assume the role of CSI detective as they observed a mock crime scene portraying a break-in that left a homicide victim and pieces of carpet that the perpetrator attempted to clean of blood stains. The students had to document clues, look for evidence, and hypothesize as to what transpired at the scene. The body fluids were artificial of course, however at a real scene with real blood, the young CSIs would have had even more resources to use, such as special chemicals used for detecting body fluid.

“These special chemicals are used. This is going to attach to the amino acids. It’s still going to show me (evidence) even though this person cleaned up the area,” Perez said.

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Students also had the opportunity to take their own fingerprint samples with Sgt. Fennell and to dust for the prints of others on objects of varying surface materials.

The STEM forum also featured two important issues in today's world — computer and cell phone technology. While all aspects of the day were interesting, the portion of the event focusing on the computer forensic sciences was especially of interest to the young, tech savvy audience.

As stated previously, the STEM Scholars were particularly interested in the presentation by Jason Dionne, computer forensic technician. Students learned about how crimes are solved using technology to access computer files, thought deleted by the criminal, but retrievable using special hardware and software. He also shared how smart phone technology and Wi-Fi has made it easier to track the whereabouts of individuals at any given time.

Event coordinators for HEC, John Varady and Lisa Shin, were excited about the students getting so much exposure to different fields of science, and about the students gaining awareness of how math and technology play such a role in CSI.

Special guests at the CSI forum were State Representative Cary Pigman and his wife Darlene. Both Representative Pigman and Mrs. Pigman work in the medical field, and they were excited to see the students being so highly engaged in STEM. Mrs. Pigman commented that in the medical field there are many careers about which people are unaware. Many of these areas are high need, so raising awareness in young people about possible future opportunities was great.

The event closed with parting words about the possibility of STEM related careers in law enforcement and forensic science, as well as the offering for interested students to work more closely with the Highlands County Sheriff's Office CSI Unit through *FloridaLearns STEM Scholars* provided "internships" and career shadowing opportunities.