

Warren Tech Mock Arson Investigation Project

When: Tuesday, May 9, 8:45 a.m.

Where: Warren Tech Central
13300 W. 2nd Place
Lakewood, CO 80228

What: Warren Tech fire science, forensics, and criminology students are teaming up as part of a mock arson investigation that will involve the burning of a specially-constructed building at the Warren Tech Central campus.

Background: The full-scale burn follows a small-scale version carried out last fall at Warren Tech North in Arvada. Students have spent months studying fire behavior and the latest techniques in evidence collection and analysis. Rob Sprenkle, Cunningham Fire District fire investigator, is helping coordinate the exercise. The project brings together various disciplines and specialties, and gives students a chance to work together, exactly as it would in a real fire investigation. This is an educational exercise; not a testing exercise.

Itinerary:

8:45 a.m. – Introductions (staff, community supporters, and dignitary)

9:00 a.m. – Overview of the burn and K9 Bandit demo

9:15 a.m. – Ignition of Fire

The fire will be narrated from ignition through suppression so students can understand what they are observing on the monitors. At the right time, the engine crew will extinguish the fire and remove the front wall of the structure, allowing students to observe the inside. Students will engage in investigation, evidence collection, forensic science, photography, and possibly engage the K9. More details in attachment.

About Jeffco Public Schools

Jeffco Public Schools has been providing educational excellence for more than 60 years. Approximately nine percent of all the K-12 students in Colorado attend a Jeffco school. Our mission is to provide a quality education that prepares all children for a successful future. The district serves over 86,000 students at 155 schools on 168 campuses. Find [Jeffco Public Schools](#) on [Facebook](#), [Twitter](#), and [YouTube](#).

Warren Tech Mock Arson Investigation Project Assignment Details

The primary goal of this exercise is to teach various applications of investigations, evidence collection, and forensic examination. Rob Sprenkle, Scott Case, and Mark Campbell will guide the groups through the exercise.

The fire will be narrated from ignition through suppression so the students will be able to understand what they are observing on the monitors.

Ignition

The fire site will be installed with two cameras and two thermocouples. One camera will provide a view of the fire ignition, growth, and spread across a couch. A second camera will be located at the door to observe rollover and ignition of a chair.

The two thermocouples will be located in the corner at the ceiling and four feet off the floor. These will provide real time temperature monitoring and will be used throughout the narration.

The fire will have two points of origin. One on the left side of the couch on the floor - an electronic incendiary device - and one on the couch cushion on the left side - a chemical incendiary device. These devices are practical applications of evidence collection and investigations.

Engine Crew Extinguishes

At approximately "flashover," the engine company will roll the truck closer, engage the pump, advance the pre-connect, and extinguish the fire from the outside.

Once the fire is out, the engine company will cut off the front wall of the structure. This will permit the students to observe the inside.

Fire Investigator, Evidence, Forensics, and Photography Students Move In to Investigate

Fire Investigator, evidence collection, forensics, and photography students will examine the scene based upon class assignments. K9 Bandit will search for liquid accelerants, if requested by the students. Evidence will be photographed and collected according to standard protocol. Forensic students will examine the evidence collected.

Evidence to be Collected

- ✓ Chainsaw gasoline from the fire truck used to cut off the wall
- ✓ Wires and matches from location 1 (*on floor next to the couch*)
- ✓ Molten metal from the thermite from location 2 (*on top of the couch*)
- ✓ Shell casings for tool marks
- ✓ Gas can sitting outside of the structure
- ✓ Carpet samples from K9 alert and exemplar samples
- ✓ Other evidence will be discussed including burn patterns, depth of calcination, etc.