Glass Fracture Analysis: Who shot “Atom Beaker”?

Purpose: Create the fracture pattern for a crime scene involving glass fracture evidence.

Materials: Crime scene report Ruler Paper Pen

Procedure:

1. Using the information provided in the investigators report, construct a visual of the pattern of the glass fractures.

2. The order of impact should be represented.

3. The size of your fractures should be relative to each other (exact measurements are not possible in our scenario).

4. The direction of the object of impact should be shown in your sketches using arrows.

Discussion:

You are the expert witness explain your process for the analysis of the crime scene glass fracture evidence. Explain to the 12 jurors you ‘visual analysis’ of the crime.

The crime:

A man named “Atom Beaker” is found dead in an abandoned house. Upon observation the medical examiner finds he was killed by a single gunshot to the head.

Three local teens were observed near the house two days earlier. They are picked up and questioned by police. When pressured, the teens confess to having stolen one of the boys’ father’s guns and taking turns shooting at the windows of an abandoned house.

The teens admit “Milo” shot the gun first, then “Fed” and finally “Tom”. At the scene, investigators find three bullet holes in a window. They analyze the angle of each bullet hole in relation to the victim and find the bullet passing through the window’s far right side is the one that fatally wounded the man.

It is up to you the forensic scientist to analyze the window and recreate the fracture pattern in the window to determine which boy fired the fatal shot.

Here is what you know…

The bullet hole in the center of the glass was shot from directly in front of the glass at an angle below the level of the window as if the shooter was kneeling down. The bullet hit a light hanging from the ceiling and shattered glass on the floor. The radial fractures caused by the impact travel the length of the entire window.

The bullet hole near the top of the window, between the center of the glass and the right edge of the glass, was fired by someone standing to the far left of the window. This bullet hit a wall on the interior right of the building. These radial fractures do not pass through the bullet hole to the far right.

The fatal shot originated from the far right of the window. The bullet hit the right side of the window and the radial fractures do not pass through the center impact.