

## ***Who Killed Professor Plum***

### *Supplies and directions*

#### **Supplies:**

This can be done in a few different ways. A traditional lab format would have each student or pair of students stationary at a lab table. A more active format could have three stations: 1 for fingerprint analysis, 1 for fiber analysis, and 1 for hair analysis. \*A lab bench is considered a group of 4 students. For this case, they can be split into groups of 2.

For traditional format:

1 dissecting microscope pair of students

1 compound microscope per pair of students

1 set of fingerprint evidence (crime scene evidence plus 5 suspects) per lab bench

1 set of fiber “slides” evidence (crime scene evidence plus 5 suspects) per lab bench

1 set of hair slides evidence (crime scene evidence plus 5 suspects) per lab bench

1 student handout for *Who Killed Professor Plum: Using Microscopy and Forensic Science to Solve a Crime* per student, plus one extra for the teacher

1 copy of the summary of evidence poster per pair of students or per bench (optional)

Colored pencils or markers

pencils

For active format:

10 dissecting microscopes (5 for finger print station, 5 for fiber station)

5 compound microscopes for hair analysis station

1 set of fingerprint evidence (crime scene evidence plus 5 suspects)

1 set of fiber “slides” evidence (crime scene evidence plus 5 suspects)

1 set of hair slides evidence (crime scene evidence plus 5 suspects)

1 student handout for *Who Killed Professor Plum: Using Microscopy and Forensic Science to Solve a Crime* per student, plus one extra for the teacher

1 copy of the summary of evidence poster per pair of students or per bench (optional)

Colored pencils or markers

pencils

**Directions:**

First, choose the traditional or the active format. If doing the active format, students should be given at least 15 minutes at each station.

For both formats, allow at least 15 minutes per set of evidence, then at least 15 minutes for them to then make their evidence posters, and 15 minutes to bring the group back together to talk about the case.

Depending on the age group and your focus for this exercise, you may want to pre-focus the hair analysis slides on the compound microscopes. Students would then rotate around to see each piece of evidence. This shouldn't be necessary for the fiber or fingerprint evidence.

Follow the layout of the student handout. You may want to print out portions of the hand out (for instance the specifics of fingerprint or hair analysis) and post them at each table so that students don't have to flip back and forth in their handouts.

An extension would be to assign a creative writing assignment in which each student frames his or her conclusions with a backstory. What do they really think happened and why do they think that?