Unknown Substances

A Lesson on Standardized Tests Used to Identify Unknown Substances.

Introduction

- The collection of evidence at a crime scene is very important to any criminal investigation.
- Once the evidence has been collected and packaged properly, it is transported to the crime lab.
- Crime labs frequently receive unknown substances taken from a crime scene.

In the Crime Lab

- Expert in the crime lab have the task of determining the physical and chemical characteristics of these substances.
- Many times the mysterious substances are illegal drugs.
- The findings of the crime lab are important in determining the guilt or innocence of a suspect.

Give the Sample a Test!

- In the case of determining the identity of an unknown substance, crime lab experts must use testing procedures that give characteristic results.
- These test and their results must be established prior to the examination of the unknown substance.
- Once these tests are verified, they are recorded and used repeatedly to prove the identity of the suspect substances.
- For Example…
- If you want to determine that an unknown substance is cocaine, you must have a previously established, positive test for cocaine. Then you can conduct this established test on an unknown white powder.

The More the Merrier

- Its is important to perform **more** than one positive test on an unknown.
- Proper identification requires that you use enough **different tests** to rule out the possibility that the unknown may be another substance.
- **For Example**
- A lab technician may be testing an unknown white powder to determine whether or not its cocaine. To be through the technician will rum multiple tests on the cocaine sample. If all the test are shown to be positive then and only then can the technician be certain its cocaine.

One Last Thought

- The Forensic Scientist in the crime lab must carefully perform each test on the unknown.
- The test results must be precisely recorded.
- The results he or she gathers must be so exact that the identifications correct beyond and reasonable doubt.