Name _____

Chemical Clues: How Science Helps Solve Crimes

When a mystery needs solving, forensic scientists step in. These scientists use special tools and science skills to figure out what happened at a crime scene. One of their most important tools? Chemical changes.

A chemical change happens when one or more substances change into something new. Forensic scientists use this idea to test things like blood, hair, or unknown powders. The way these items react with certain chemicals can help solve crimes.

For example, if a red stain is found on the floor, scientists can test it to see if it's really blood. They add a chemical that reacts with blood. If the chemical changes color, they know it's not just paint or ketchup—it's likely blood. That's a chemical change giving an important clue.

Sometimes, scientists find white powder and don't know what it is. They add different chemicals to the powder to watch how it reacts. One chemical might fizz, another might change color. These chemical reactions help identify the powder, which could be something dangerous like a drug—or something harmless like baking soda.

Forensic scientists also study things like fingerprints, clothing fibers, or burned materials. Even though not all of these use chemical changes, many do. For example, special sprays or lights can make invisible stains show up because of chemical reactions.

By using chemistry, forensic scientists can learn who was at the scene, what they touched, and even what they left behind. Their work helps the police find out the truth.

So, the next time you see a mystery movie or read a detective story, remember: real-life science, especially chemical changes, often helps solve the case!