

**ABFO scales:** (American Board of Forensic Odontology). An L-shaped piece of plastic used in photography that is marked with circles, black and white bars, and 18-percent gray bars to assist in distortion compensation and provide exposure determination. For measurement, the plastic piece is marked in millimeters.

**Alternate light source (ALS):** Equipment used to produce visible and invisible light at various wavelengths to enhance or visualize potential items of evidence (fluids, fingerprints, clothing fibers, etc.).

**Argon ion laser:** The first generation of lasers used for detection of latent fingerprints. Expensive and non-portable, they have been supplanted by the introduction of solid-state and semi-conductor lasers.

**Bindle paper:** Clean paper that is folded to contain trace evidence, sometimes included as part of the packaging for collecting trace evidence.

**Biohazard bag:** A container for materials that have been exposed to blood or other biological fluids.

**Biological fluids:** Fluids that have human or animal origin, most commonly encountered at crime scenes (e.g., blood, mucus, perspiration, saliva, semen, vaginal fluid, urine).

**Biological weapon:** Biological agents used to threaten human life (e.g., anthrax, smallpox, or any infectious disease).

**Bloodborne pathogen:** Infectious, disease-causing microorganisms that may be found or transported in biological fluids.

**Boundaries:** The perimeter or border surrounding potential physical evidence related to the crime.

**Case file:** The collection of documents comprising information concerning a particular investigation. This collection may be kept in case jackets, file folders, ring binders, boxes, file drawers, file cabinets, or rooms. Sub-files are often used within case files to segregate and group interviews, media coverage, laboratory

requests and reports, evidence documentation, photographs, videotapes, audiotapes, and other documents.

**Case identifiers:** The alphabetic and/or numeric characters assigned to identify a particular case.

**Chase:** A space in a wall or floor for pipes or ducts.

**Chain of custody:** A process used to maintain and document the chronological history of the evidence. Documents should include name or initials of the individual collecting the evidence, each person or entity subsequently having custody of it, dates the items were collected or transferred, agency and case number, victim's or suspect's name, and a brief description of the item.

**Chemical enhancement:** The use of chemicals that react with specific types of evidence (e.g., blood, semen, lead, fingerprints) in order to aid in the detection and/or documentation of evidence that may be difficult to see.

**Chemical threat:** Compounds that may pose bodily harm if touched, ingested, inhaled, or ignited. These compounds may be encountered at a clandestine laboratory, or through a homemade bomb or tankard leakage (e.g., ether, alcohol, nitroglycerin, ammonium sulfate, red phosphorus, cleaning supplies, gasoline, or unlabeled chemicals).

**Clean/sanitize:** The process of removing biological and/or chemical contaminants from tools and/or equipment (e.g., using a mixture of 10-percent household bleach and water).

**Collect/collection:** The process of detecting, documenting, or retaining physical evidence.

**Comparison samples:** A generic term used to describe physical material/ evidence discovered at crime scenes that may be compared with samples from persons, tools, and physical locations. Comparison samples may be from either an unknown / questioned or a known source.

Samples whose source is *unknown / questioned* are of three basic types:

1. Recovered crime scene samples whose source is in question (e.g., evidence left by suspects, victims).

2. Questioned evidence that may have been transferred to an offender during the commission of the crime and taken away by him or her. Such questioned evidence can be compared with evidence of a known source and can thereby be associated or linked to a person, vehicle, or tool of a crime.
3. Evidence of an unknown/questioned source recovered from several crime scenes may also be used to associate multiple offenses that were committed by the same person and/or with the same tool or weapon.

Samples whose source is *known* are of three basic types:

1. A standard/reference sample is material of a verifiable/documented source which, when compared with evidence of an unknown source, shows an association or linkage between an offender, crime scene, and/or victim (e.g., a carpet cutting taken from a location suspected as the point of transfer for comparison with the fibers recovered from the suspect's shoes, a sample of paint removed from a suspect's vehicle to be compared with paint found on a victim's vehicle following an accident, or a sample of the suspect's and/or victim's blood submitted for comparison with a bloodstained shirt recovered as evidence).
2. A control/blank sample is material of a known source that presumably was uncontaminated during the commission of the crime (e.g., a sample to be used in laboratory testing to ensure that the surface on which the sample is deposited does not interfere with testing. For example, when a bloodstain is collected from a carpet, a segment of unstained carpet must be collected for use as a blank or elimination sample).
3. An elimination sample is one of known source taken from a person who had lawful access to the scene (e.g., fingerprints from occupants, tire tread impressions from police vehicles, footwear impressions from emergency medical personnel) to be used for comparison with evidence of the same type.

**Contamination:** The unwanted transfer of material from another source to a piece of physical evidence.

**Control/blank sample:** See *Comparison samples*.

**Cross-contamination:** The unwanted transfer of material between two or more sources of physical evidence.

**Documentation:** Written notes, audio/videotapes, printed forms, sketches and/or photographs that form a detailed record of the scene, evidence recovered, and actions taken during the search of the crime scene.

**Drying box:** A box intended to quickly dry multiple swabs with the aid of a fan blowing air through a chamber in which multiple swabs can be held apart from one another.

**Dying declaration:** Statements made by a person who believes he or she is about to die, concerning the cause or circumstance surrounding his or her impending death.

**Electrostatic dust lifter:** A device that operates by charging a plastic film, placed over the dust print, which creates electrostatic adhesions and draws the film onto the surface bearing the print. The dust particles are attracted to the film because of this charge and adhere to it.

**Elimination sample:** See *Comparison samples*.

**Evidence identifiers:** Tape, labels, containers, and string tags used to identify the evidence, the person collecting the evidence, the date the evidence was gathered, basic criminal offense information, and a brief description of the pertinent evidence.

**Exemplars:** A known sample of evidence created at the request of an investigator used for comparison to an unknown sample.

**First responder(s):** The initial responding law enforcement officer(s) and/or other public safety official(s) or service provider(s) arriving at the scene prior to the arrival of the investigator(s) in charge.

**Faraday bag:** Specialty collection bags for electronic parts with lining to protect the contents from electromagnetic forces.

**Fluorescent powders:** Powder intended to reveal latent prints which contain fluorescent chemicals that reveal itself under a forensic light source.

**Forensic light source:** see *Alternate light source (ALS)*.

**Impression evidence:** Objects or materials that have retained the characteristics of other objects that have been physically pressed against them.

**Infrared photography:** A photographic process of recording images by using light from the infrared (IR) spectrum only, generally 700 to 900 nanometers.

**Initial responding officer(s):** The first law enforcement officer(s) to arrive at the scene.

**Investigator(s) in charge:** The official(s) responsible for the crime scene investigation.

**Known:** See *Comparison samples*.

**Latent print:** A print impression not readily visible, made by contact of the hands or feet with a surface resulting in the transfer of materials from the skin to that surface.

**Long-wave ultraviolet (UV) lamp:** An ultraviolet light source that operates between 300-400 nanometers; useful for quickly scanning and documenting crime scenes when used in tandem with a UV-sensitive camera.

**Major case prints:** The recording of all friction ridge detail on the hands. This includes the fingers, fingertips, finger joints and edges of the fingers as well as the entire palm. Also known as “complete friction ridge exemplars.”

**Matrix:** The substance that is deposited or removed by the friction ridge skin when making an impression.

**Measurement scale:** An object showing standard units of length (e.g., ruler) used in photographic documentation of an item of evidence.

**Multiple scenes:** Two or more physical locations of evidence associated with a crime (e.g., in a crime of personal violence, evidence may be found at the location of the assault and also on the person and clothing of the victim/assailant, the victim's/assailant's vehicle, and locations the victim/assailant frequents and resides).

**Nonporous container:** Packaging through which liquids or vapors cannot pass (e.g., glass jars or metal cans).

**Other responders:** Individuals who are involved in an aspect of the crime scene, such as perimeter security, traffic control, media management, scene processing, and technical support, as well as prosecutors, medical personnel, medical examiners, coroners, forensic examiners, evidence technicians, and fire and rescue officers.

**Outsole:** The portion of footwear that is in direct contact with the ground.

**Personal protective equipment (PPE):** Articles such as disposable gloves, masks, and eye protection that are utilized to provide a barrier to keep biological or chemical hazards from contacting the skin, eyes, and mucous membranes and to avoid contamination of the crime scene.

**Porous container:** Packaging through which liquids or vapors may pass (e.g., paper bags, cloth bags).

**Porous surface:** any surface that has tiny openings that absorbs liquids or allows them to pass through (e.g., furniture fabric, canvas, wood, wall board)

**Presumptive test:** A non-confirmatory test used to screen for the presence of a substance.

**Projectile trajectory analysis:** The method for determining the path of a high-speed object through space (e.g., a bullet emanating from a firearm).

**Radiological threat:** The pending exposure to radiation energy. (This energy can be produced by shortwave X-rays or through unstable isotopes.)

**Single-use equipment:** Items that will be used only once to collect evidence, such as biological samples, then discarded to minimize contamination (e.g., tweezers, scalpel blades, droppers).

**Secondary Liner:** Secondary liner is a clear polyester sheet or roll used in industry for stickers, seals, and other adhesive-containing materials to protect the adhesive until ready for use.

**Standard/reference sample:** See *Comparison samples*.

**Substrate:** The surface upon which a friction ridge impression is deposited.

**Team members:** Individuals who are called to the scene to assist in investigation or processing of the scene (e.g., scientific personnel from the crime laboratory or medical examiner's office, other forensic specialists, photographers, mass disaster specialists, experts in the identification of human remains, arson and explosives investigators, clandestine drug laboratory investigators, as well as other experts).

**Trace evidence:** Physical evidence that results from the transfer of small quantities of materials (e.g., hair, textile fibers, paint chips, glass fragments, gunshot residue particles).

**Transient evidence:** Evidence which by its very nature or the conditions at the scene will lose its evidentiary value if not preserved and protected (e.g., blood in the rain).

**Ultraviolet photography:** A photographic process of recording images by using light from the ultraviolet (UV) spectrum only, generally less than 400 nanometers.

**Unknown/questioned:** See *Comparison samples*.

**Walk-through:** An assessment conducted by carefully walking through the scene to evaluate the situation, recognize potential evidence, and determine resources required. Also, a final survey conducted to ensure the scene has been effectively and completely processed.