**History of Forensic Science**

Ancient Rome

* “Forensic” derived from the \_\_\_\_\_\_\_\_ word “forensis” which means \_\_\_\_\_\_\_\_\_\_
* Accused and \_\_\_\_\_\_\_\_\_\_\_ argued their cases before a chosen group of people
* The individual with the best \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ (in other words, the best forensic skills) won!

Alexandrian Egypt (300 BCE)

* King \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was the first leader to rule that it was acceptable for physicians and medical students to \_\_\_\_\_\_\_\_ open the \_\_\_\_\_\_\_\_\_\_\_ body for discovery
* This was simply an extension of \_\_\_\_\_\_\_\_\_\_\_\_\_

Herophilus (3rd Century BCE)

* The Father of \_\_\_\_\_\_\_\_\_\_\_\_\_
* First physician to \_\_\_\_\_\_\_\_\_\_\_ human bodies
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ possibly attended several of the dissections
* Rumored to have performed \_\_\_\_\_\_\_\_\_ vivisections on criminals

Archimedes (287-212 BCE)

* Archimedes used water \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and proved that the King’s crown was not made of solid gold by its \_\_\_\_\_\_\_\_\_\_\_\_\_ and bouyancy.
* This “Eureka” moment is considered to be the \_\_\_\_\_\_\_\_\_\_\_\_ account of forensic science.

Agrippina, Nero and A Black Tooth (66 CE)

* Agrippina, the wife of Claudius and mother of Nero, ordered the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of Lollina Paulina (Claudius’ mistress). When the head was delivered to Agrippina she looked for a discolored \_\_\_\_\_\_\_\_\_\_\_as proof that it was Lollina. This is the first account of forensic \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3rd Century China- An Early Forensic Investigation

* A woman claimed that her husband died in an accidental \_\_\_\_\_\_\_. The local death investigator noticed that the husband’s corpse did not have ashes in its\_\_\_\_\_\_\_\_\_\_\_. In order to verify the woman’s story he burned two pigs-one alive and one dead. He then checked the mouths of each pig for ashes. The pig that was burned \_\_\_\_\_\_\_\_\_ had ashes in its mouth, but the other pig did not. This proved that the man was dead \_\_\_\_\_\_\_\_\_he was burned. When confronted with the evidence, the woman confessed to the murder.

Fingerprints

* Soleiman, an Arabic merchant of the 7th century used \_\_\_\_\_\_\_\_\_\_\_\_ as a proof of validity between debtors and lenders.

The \_\_\_\_\_\_\_\_\_\_\_\_ job was created in 1149 by King Richard I to determine how much an estate owed to the crown. Later the crowner was called upon to investigate questionable deaths. The title of crowner eventually evolved into \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Entomology

* 12th century \_\_\_\_\_\_\_\_\_- A case of a person murdered by a \_\_\_\_\_\_\_\_\_\_\_ was solved when the death investigator instructed everyone in the town to bring their sickles to one location and \_\_\_\_\_\_\_\_\_\_, attracted by the smell of \_\_\_\_\_\_\_\_\_, eventually gathered on a single sickle. In light of this, the murderer confessed.

Watch of London and “Old Charleys”

* The first \_\_\_\_\_\_\_\_ were appointed by Henry III in \_\_\_\_\_\_\_\_. They worked only at \_\_\_\_\_\_\_\_. They were known as the Watch of London.
* Later, they became known as Old Charleys and were \_\_\_\_\_\_\_\_\_ by the residents they served.

Autopsy

* The word "autopsy" comes from the \_\_\_\_\_\_\_\_\_\_ words "auto" and "opsis", and it literally means "to see for oneself".
* The first known \_\_\_\_\_\_\_\_\_\_ autopsy was ordered by a magistrate in \_\_\_\_\_\_\_\_\_\_in 1302.
* To understand the human anatomy better, and to improve their skills, the artists \_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_each performed autopsies.
* The autopsy really became significant in \_\_\_\_\_\_\_\_, when \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ published his great work *On the Seats and Causes of Diseases as Investigated by Anatomy*.

Richard Hunne and Blood as Evidence

* 1511- Hunne questioned the use of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ law vs. \_\_\_\_\_\_\_\_ law.
* He was imprisoned for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* When he was found dead in his cell, the prison claimed that he had committed \_\_\_\_\_\_\_\_\_\_\_\_\_. However, \_\_\_\_\_\_\_\_\_\_ evidence proved that he had been murdered.

Colonial America (1609-1664)

* The Night or \_\_\_\_\_\_\_\_\_\_Watch was initially created to watch for \_\_\_\_\_\_\_\_\_but eventually began to watch for \_\_\_\_\_\_\_\_\_\_\_\_\_activity also.
* Members carried\_\_\_\_\_\_\_\_\_\_\_\_ rattles to alert the people if a fire or crime was occurring.

1670: Anton Van Leeuwenhoek

* Constructs a simple \_\_\_\_\_\_\_\_\_\_\_that he presents to The Royal Society

1776 Colonial America

* The body of General \_\_\_\_\_\_\_\_\_\_\_\_was disinterred from a mass grave and identified by Paul Revere. Revere recognized the false \_\_\_\_\_\_\_\_\_\_ that he had made for the General

First Documented Use of Physical Evidence

* In 1784, an Englishman was convicted of murder.
* A torn piece of\_\_\_\_\_\_\_\_\_\_\_\_ that was retrieved from the victim’s head \_\_\_\_\_\_\_\_\_matched a piece in the Englishman’s pocket.

Europe’s Industrial Revolution (18th Century)

* The populations of the towns increased and so did the \_\_\_\_\_\_\_\_rate.
* Thief catchers were recruited. These were criminals that agreed to implicate their accomplices for \_\_\_\_\_\_\_\_\_\_or\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Thus the phrase “set a thief to catch a thief”.

The Bow Street Runners of London

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a resident of Bow Street, developed the first investigative team in the \_\_\_\_\_\_\_\_\_\_\_\_.
* The Bow Street Runners earned a\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the stolen goods that they recovered.
* In \_\_\_\_\_\_\_\_\_\_, an Act of Parliament allowed the runners to help outside the London jurisdiction. This established the model for\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Paris, France-1810

* The first detective force, the\_\_\_\_\_\_\_\_\_\_\_\_\_\_, is established.

Mathiew Orfila

* Orfila is known as the Father of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* He published a book on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in 1813.

The Texas Rangers

* Established in \_\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to protect the settlers in Texas.
* They are the oldest \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_agency in North America.
* "They were men who could not be stampeded." Colonel Garrison

Murder for Medicine

* In Edinburgh, the demand for \_\_\_\_\_\_\_\_\_\_\_led to “murder for medicine”
* [Burke and Hare](http://www.youtube.com/watch?v=S-2juozkuM8) became known as the first \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_after they killed 16 people and \_\_\_\_\_\_\_\_\_the bodies to John Knox, the local anatomist.

London Metropolitan Police Force 1829

* This agency was founded by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* They were nicknamed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* They were the first full-time police force to have minimum \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ requirements with standards for \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The Marsh Test

* Arsenic, also known as \_\_\_\_\_\_\_\_\_\_\_\_\_powder, was a popular method of murder among \_\_\_\_\_\_\_\_\_\_.
* In 1836 Marsh developed a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to detect arsenic.
* In \_\_\_\_\_\_\_\_\_\_\_\_ the test was used to convict Marie Lafarge of poisoning her husband.

America- Middle of the 19th Century

* First professional police forces:
	+ Boston in 1837
	+ New York in 1844
	+ Philadelphia in 1857
	+ All major cities by 1870’s

The Pinkerton Agency

* In 1850, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_established Pinkerton’s National Detective Agency.
* They were asked by local police to help in investigations.
* They created a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- a compilation of descriptions, methods of operation, hiding places, and associates for known criminals. This was the precursor to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and Most Wanted Lists.
* Pinkerton gained national fame when he uncovered a plot to kill \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in 1861. He subsequently became the head of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_during the Civil War.

William Herschel- 1856

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_was created on July 5, 1865 in Washington, D.C., to suppress \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_currency.
* Two years later, the Secret Service responsibilities were broadened to include "detecting persons perpetrating \_\_\_\_\_\_\_\_\_\_\_against the government."
* In 1894, the Secret Service began part-time protection of President\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* In \_\_\_\_\_\_\_\_\_\_\_\_\_, one year after the assassination of President\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the Secret Service began to protect the President on a full-time basis.

 Alphonse Bertillon

* In 1879 Bertillon develops a system to identify people using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* He named the system\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* For two decades, this system was considered full proof.

Forensics in Literature

* Sir Arthur Conan Doyle was a \_\_\_\_\_\_\_\_\_\_\_\_\_that had an unsuccessful practice.
* He used his role model \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_as a template for Sherlock Holmes. Bell had excellent deductive reasoning skills.
* 1887- *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*was the first Holmes story.
* It was published in *Beeton’s Christmas Annual.*
* In 2007, a copy of *Beeton’s* sold at auction for $156,000

Sherlock Holmes

* [Holmes](http://www.sherlockian.net/) eventually starred in \_\_\_\_\_\_\_ works (4 novels and 56 short stories)
* The character lived at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Street. This was a fictional address, but so many readers tried to find Holmes’ residence that England created a 221B Baker Street.
* Holmes’ arch enemy was Professor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Doyle killed off the character of Holmes in\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The outrage was so great that Doyle was forced to bring him back.

1888 and the Kodak Camera

* George Eastman invents the first hand-held \_\_\_\_\_\_\_\_\_\_\_\_\_. He names the brand Kodak and sells it for $\_\_\_\_\_\_\_\_\_\_\_\_.

 1892- Francis Galton

* Galton, a nephew of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, was the first to state that \_\_\_\_\_\_\_\_\_\_\_\_\_\_are unique to each person.
* His suggestion to use fingerprints for identification was not taken seriously until the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_System failed.

1900- Scotland Yard

* In 1900, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_replaced the Bertillon System with a fingerprint identification system.
* The Metropolitan Police's crime database is housed at New Scotland Yard. The system is called *Home Office Large Major Enquiry System*, more commonly referred to by its acronym,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The training program is called "Elementary", after Holmes's well-known phrase "elementary, my dear Watson".

Karl Landsteiner

* In 1900, Landsteiner identifies human \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_groups.
* He will receive the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in 1930 for this discovery

 The West Case

* In 1903, Will West was arrested and taken to Fort Leavenworth prison. His measurements were taken using the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and it was soon discovered that they matched another inmate, William West. Will and William were\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, but their\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ were different. This case marked the end of the Bertillon System and all subsequent identification was done using fingerprints.

The Locard Principle

* In 1904, Edmond Locard established the principle that “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.
* This is also called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_principle.

The FBI

* In 1905, President \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ established the Federal Bureau of Investigation.

 The First Crime Lab in the World

* In 1910, the first crime laboratory was opened by\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The lab was located in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Soil as Evidence

* In 1910, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_uses soil evidence to solve a murder case.
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_were also used to strengthen the case

1923 Developments

* The first police lab is created in the United States. The lab is located in\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*established the concept of general acceptance for evidence presented in court.
* Francis Aston receives the Nobel Prize for the development of the mass\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Calvin Goddard

* In 1925, Calvin Goddard wrote a paper about the use of a comparison microscope in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_investigation.
* He later worked with the police to determine that the St. Valentine’s Day Massacre was the work of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_gang. He was able to match the bullets to their Tommy guns.

FBI Crime Laboratory

* The FBI opened its first national crime lab in\_\_\_\_\_\_\_\_. The lab offered services to all law enforcement agencies in the country.
* The lab was located in Washington, D.C. and performed \_\_\_\_\_\_\_\_\_\_ examinations during its first year of existence.

The 1950’s

* In 1954, Borkenstein invents the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_for field sobriety testing.
* Forensic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is formed when growth stages of skeletal bones is discovered.
* In 1959, Watson and Crick discover that\_\_\_\_\_\_\_\_\_\_\_\_ has a \_\_\_\_\_\_\_\_\_\_\_shape.

Developments in the 1970’s

* Japan discovers that \_\_\_\_\_\_\_\_\_\_\_\_fumes will develop \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The \_\_\_\_\_\_\_creates a fingerprint database.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_profiling begins.
* \_\_\_\_\_\_\_\_\_\_\_mark evidence convicts the serial killer\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

DNA Fingerprinting

* In 1984, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ discovers that everyone, except\_\_\_\_\_\_\_\_\_\_\_\_\_ twins, has unique \_\_\_\_\_\_
* In \_\_\_\_\_\_\_, DNA fingerprinting is used to convict Colin Pitchfork of murder.
* In \_\_\_\_\_\_\_, an FBI DNA database is created.

Richard Saferstein discusses the history of CSI

* Listen to the author of your textbook discuss the history of CSI. <http://www.videojug.com/interview/early-history-of-csi-2>