

Pioneers and Milestones in Forensic Science

Forensic Science · Answer Key · 25 Questions

1. Who is credited with publishing the first scientific study of fingerprinting in 1892, titled 'Finger Prints'?

- A) Francis Galton**
- B) Edmond Locard
- C) Alphonse Bertillon
- D) Hans Gross

2. In 1910, who established the first police crime laboratory in Lyon, France?

- A) Calvin Goddard
- B) Edmond Locard**
- C) Alec Jeffreys
- D) Mathieu Orfila

3. Which forensic method was developed by Alphonse Bertillon in the 19th century to identify individuals based on precise body measurements?

- A) DNA profiling
- B) Anthropometry**
- C) Ballistics
- D) Voiceprinting

4. Who is known as the 'Father of Toxicology' for his pioneering work in the detection of poisons, particularly arsenic?

- A) Mathieu Orfila**
- B) Karl Landsteiner
- C) James Marsh
- D) Francis Galton

5. In 1984, which scientist developed the technique for DNA fingerprinting while working at the University of Leicester?

- A) Watson and Crick
- B) Alec Jeffreys**
- C) Rosalind Franklin
- D) Kary Mullis

6. The first practical test for detecting arsenic in human tissue was developed in 1836 by which chemist?

- A) James Marsh**
- B) Robert Bunsen
- C) Louis Pasteur
- D) Antoine Lavoisier

7. What invention by Calvin Goddard allowed forensic examiners to match a bullet to a specific firearm by comparing rifling marks?

- A) Scanning Electron Microscope
- B) Comparison Microscope**
- C) Gas Chromatograph
- D) Infrared Spectrometer

8. Who proposed the principle that 'every contact leaves a trace,' which remains the fundamental tenet of forensic science?

- A) Hans Gross
- B) Edmond Locard**
- C) Albert Osborn
- D) Henry Faulds

9. In 1901, Karl Landsteiner made a significant contribution to forensic serology by discovering which of the following?

- A) Blood types (ABO system)**
- B) Rh factor
- C) DNA structure
- D) The presence of hemoglobin

10. What field of forensic science did Hans Gross pioneer with his 1893 publication, 'Handbuch für Untersuchungsrichter'?

- A) Criminalistics**
- B) Digital Forensics
- C) Forensic Odontology
- D) Forensic Psychology

11. Which case, solved in 1986 using Alec Jeffreys' DNA technology, became the first criminal conviction based on DNA evidence?

- A) The Lindbergh Kidnapping
- B) The Colin Pitchfork Case**
- C) The O.J. Simpson Trial
- D) The Boston Strangler Case

12. Before DNA, what was the primary biological method used to narrow down a suspect pool based on inherited proteins in blood?

A) Blood typing

- B) Hair analysis
- C) Dental records
- D) Iris scanning

13. The first use of dental records for victim identification is historically attributed to the identification of which figure?

A) Marie Antoinette

- B) Queen Victoria
- C) George Washington
- D) Abraham Lincoln

14. In 1923, what landmark legal standard established that scientific evidence must be 'generally accepted' by the scientific community to be admissible in court?

A) The Daubert Standard

B) The Frye Standard

- C) The Locard Principle
- D) The M'Naghten Rule

15. Who is considered the pioneer of questioned document examination, publishing 'Questioned Documents' in 1910?

A) Albert S. Osborn

- B) Calvin Goddard
- C) Leone Lattes
- D) Oscar Heinrich

16. The first use of bullet comparison to solve a murder case in the United States occurred in 1835, involving which investigator?

A) Henry Goddard

- B) John Browning
- C) Allan Pinkerton
- D) J. Edgar Hoover

17. Leone Lattes developed a method in 1915 that allowed for the blood typing of what type of evidence?

A) Dried bloodstains

- B) Living tissue
- C) Hair follicles
- D) Saliva samples

18. What was the name of the first systematic identification system that relied on photographs and physical measurements?

A) The Bertillon System

- B) The Galton System
- C) The Locard System
- D) The Orfila System

19. In 1932, which organization established a national forensic laboratory that would become the standard for US law enforcement?

A) FBI

- B) CIA
- C) INTERPOL
- D) Scotland Yard

20. What technique for amplifying tiny amounts of DNA, revolutionizing forensics in the 1980s, was invented by Kary Mullis?

A) PCR (Polymerase Chain Reaction)

- B) STR Analysis
- C) RFLP
- D) Gel Electrophoresis

21. Who is credited with the first recorded use of fingerprints as a means of identification in a murder case (the Rojas case in Argentina, 1892)?

A) Juan Vucetich

- B) Francis Galton
- C) Henry Faulds
- D) William Herschel

22. In 1977, what invention allowed for the more efficient use of the comparison microscope in forensic firearms analysis?

A) The firing pin impression match

B) The ballistic imaging database

- C) The automated fingerprint identification system
- D) The infrared camera

23. Which nineteenth-century scientist was the first to use the microscope for the study of hair and fibers in a criminal investigation?

A) James Marsh

- B) Mathieu Orfila
- C) Alphonse Bertillon
- D) James Reinsch

24. The first recorded use of forensic entomology to solve a murder case occurred in 13th-century China, as documented by whom?

A) Sung Tz'u

B) Confucius

C) Laozi

D) Sun Tzu

25. What is the 'Locard Exchange Principle' officially known for defining?

A) The transfer of trace evidence

B) The speed of chemical reactions

C) The probability of DNA matching

D) The decomposition rate of bodies