Curriculum Standards
Fingerprints & Impressions

Common Core Standards:

Literacy in Science & Technical Subjects Grade 6-12

Key Ideas and Details:
3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

Craft and Structure:
4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade specific texts and topics.

Integration of Knowledge and Ideas:
7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

Math

Statistics & Probability [Grade 6]
1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.

Statistics & Probability [Grade 7]
1. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

Next Generation Science Standards

High School Life Science

- HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.
- HS-LS3-3 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.
Common Career Technical Core

Law, Public Safety, Corrections & Security Career Cluster® (LW)

Law Enforcement Services Career Pathway (LW-ENF)

12. Demonstrate the procedures to properly protect, document and process the crime scene and all related evidence.

Virginia Standards of Learning (SOL)

6th Grade Science
6.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
   a) observations are made involving fine discrimination between similar objects and organisms; h) data are analyzed and communicated through graphical representation;
   i) models and simulations are designed and used to illustrate & explain phenomena
   j) current applications are used to reinforce science concepts.

Life Science (Grade 7)
LS.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
   b) a classification system is developed based on multiple attributes;
   d) models and simulations are constructed and used to illustrate & explain phenomena
   j) current applications are used to reinforce life science concepts

LS.12 The student will investigate and understand that organisms reproduce and transmit genetic information to new generations. Key concepts include
   b) the function of genes and chromosomes;
Physical Science (Grade 8)
PS.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
   a) chemicals and equipment are used safely;
   j) valid conclusions are made after analyzing data;
   k) research methods are used to investigate practical problems and questions;
   m) models and simulations are constructed and used to illustrate & explain phenomena
   n) current applications of physical science concepts are used.

Biology
BIO.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
   b) hypotheses are formulated based on direct observations & information from scientific literature;
   d) graphing and arithmetic calculations are used as tools in data analysis;
   h) chemicals and equipment are used in a safe manner;
   m) current applications of biological concepts are used.

BIO.5 The student will investigate and understand common mechanisms of inheritance and protein synthesis. Key concepts include
   d) prediction of inheritance of traits based on the Mendelian laws of heredity;
   f) genetic variation;

Virginia Career and Technical Education Competencies

Forensic Technology

70. Identify the anatomy of a fingerprint and the fingerprint’s value in forensics.
71. Describe the systems of analysis for fingerprints.
72. Describe how to fingerprint subjects.
73. Describe the materials used to take fingerprints from various surfaces.
74. Identify fingerprint characteristics.
75. Explain the procedures for analyzing latent prints.
76. Describe the procedure to make casts and molds of shoe impressions.
100. Describe the significance of tool mark impressions in criminal investigations.
101. Analyze tool marks by matching marks to the tool that produced them.