

# Units 10- Bodily fluid and their relationship to a crime

Content Area: **Science**  
Course(s): **Forensic Science**  
Time Period: **June**  
Length: **6 Blocks**  
Status: **Published**

## Enduring Understandings

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Crime scene reconstruction helps to sort out the events surrounding the occurrence of a crime.  
Individual blood stains can convey the directionality and of impact of the blood when it impacted a surface.

## Essential Questions

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How can crime scene reconstruction assist forensic scientists in solving crimes?  
What information can be inferred based on blood spatter patterns?

## Content

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Vocabulary  
Deductive reasoning  
Incident reconstruction  
Event reconstruction  
Physical evidence reconstruction  
Blood stain pattern analysis

## Skills

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Define crime scene reconstruction  
Discuss the information that can be gained from bloodstain pattern analysis about the events involved in a violent crime  
Describe the methods for documenting evidence at a crime scene

## Resources

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- Teacher's Wraparound Edition for Forensic Science: An Introduction, 2nd Edition

Richard Saferstein, Forensic Science Consultant ©2011 |Prentice Hall

- Instructor's Manual with Lesson Plans for Forensic Science: An Introduction, 2nd Edition

Richard Saferstein, Forensic Science Consultant ©2011 |Prentice Hall

- Basic Laboratory Exercises for Forensic Science: An Introduction, 2nd Edition

Richard Saferstein, Forensic Science Consultant ©2011 |Prentice Hall

- Forensic Science Experiments (Facts on File Science Experiments) Hardcover – October 1, 2009

by [Pamela Walker](#) (Author), [Elaine Wood](#) (Author)

- Forensic Science Experiments on File (Facts on File Science Library) Ring-bound

- Crime Scene Investigations: Real-Life Science Labs For Grades 6-12

by [Pam Walker](#), [Elaine Wood](#), [Christopher Stone \(Illustrator\)](#)

## Assessments

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Performance: Lab Assignment

Lab: Presumptive Blood Test Students test to see if a stain is blood using Kastle-Meyer Test

Performance: Lab Assignment

Lab: Where the victim? Students drop blood from different heights and angles to analyze the shape of the spatter.

Performance: Dramatization

Final Performance Assessment: Mock Trial Students will prepare defense or prosecution for a mock trial.

## Standards

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SCI.9-12.1.2	Classifications or explanations used at one scale may fail or need revision when information from smaller or larger scales is introduced; thus requiring improved investigations and experiments.
SCI.9-12.1.4	Mathematical representations are needed to identify some patterns.
SCI.9-12.CCC.1	Patterns.
SCI.9-12.SEP.1	Asking Questions and Defining Problems
SCI.9-12.SEP.1.a	Ask questions

SCI.9-12.SEP.1.a.1	that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information.
SCI.9-12.SEP.1.a.2	that arise from examining models or a theory, to clarify and/or seek additional information and relationships.
SCI.9-12.SEP.2	Developing and Using Models
SCI.9-12.SEP.2.c	Develop, revise, and/or use a model based on evidence to illustrate and/or predict the relationships between systems or between components of a system.
SCI.9-12.SEP.3	Planning and Carrying Out Investigations
SCI.9-12.SEP.3.d	Select appropriate tools to collect, record, analyze, and evaluate data.
SCI.9-12.SEP.3.e	Make directional hypotheses that specify what happens to a dependent variable when an independent variable is manipulated.
SCI.9-12.SEP.8	Obtaining, Evaluating, and Communicating Information
SCI.9-12.SEP.8.a	Critically read scientific literature adapted for classroom use to determine the central ideas or conclusions and/or to obtain scientific and/or technical information to summarize complex evidence, concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
SCI.9-12.SEP.8.b	Compare, integrate and evaluate sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a scientific question or solve a problem.
SCI.9-12.SEP.8.e	Communicate scientific and/or technical information or ideas (e.g. about phenomena and/or the process of development and the design and performance of a proposed process or system) in multiple formats (i.e., orally, graphically, textually, mathematically).  Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.