

THE HISTORY CHANNEL CLASSROOM STUDY GUIDES

Modern Marvels

FBI's Crime Lab

On April 25, 2003, The Federal Bureau of Investigation officially opened its new Laboratory Division Facility. This state-of-the-art facility is the most sophisticated forensic laboratory in the world. It is where the art and science of criminology join forces to solve some of the nation's most perplexing crimes, from local homicides to terrorist attacks such as those which occurred on September 11, 2001. This edition of *Modern Marvels* takes you inside these new facilities to demonstrate some of the advanced technologies and techniques scientists, criminologists and agents perform here. It provides insight to the history of the Bureau's forensic activities as well as a fascinating look at modern forensics. *FBI's Crime Lab* would be useful for classes on American History, Criminal Justice, Law and Justice and Science. It is appropriate for middle school and high school.

OBJECTIVES

Students will explore the FBI's forensic facilities to understand the role of science and technology in criminal investigations as well as criminology. They will learn about the Bureau's history of forensics as well as its modern application in a post 9/11 nation.

NATIONAL HISTORY STANDARDS

FBI's Crime Lab fulfills the following National Standards for History for grades 5-12: chronological thinking and historical comprehension for United States History eras 8, 9 and 10.

- [absentia](#)
- [contaminate](#)
- [espionage](#)
- [inhibit](#)
- [misnomer](#)
- [sabotage](#)
- [striation](#)
- [tenacity](#)
- [vanguard](#)

Discussion Questions

1. At the FBI's Crime Lab, forensic scientists help the Bureau to solve crimes. What is a forensic scientist? Are there different types? What do they do?
2. Workers at the Crime Lab refer to it as "Battle Star Gallactica." Why?
3. The Crime Lab building is designed to preserve the "integrity of evidence." What does this mean? How does the design of the building accomplish this?
4. Forensic science is more than a science and more than art. Discuss how it is both an art and a science.
5. What are some of the types or forms of analysis performed at the Crime Lab?
6. What makes this lab unique?
7. The Crime Lab is the most sophisticated crime laboratory in the world. What are the origins of this lab?
8. Discuss the role of Agent Charles Appel in developing FBI forensic science.
9. The FBI Crime Lab uses serology to solve some crime cases. What is serology? How is it used to solve crimes?
10. How do scientists of the firearms unit determine if a bullet came from a particular firearm?
11. Agents consider homemade bombs especially dangerous. Why?

12. What are latent fingerprints?
13. Discuss how DNA is the fingerprint of the 21st century.
14. There are two different types of DNA, nuclear and mitochondrial. What is the difference between these two types?
15. How did the events of September 11, 2001 change the mission and methods of the FBI?

Extended Activities

1. Design your own crime lab. Research forensics on the Internet and use your information to design your own lab.
2. Create a poster illustrating the different methods forensic scientists use.