

LESSON H-UIII-L3

Sarin Nerve Agent Attacks: Chemical Weapons of Mass Destruction

Unit III: Historical Context of Terrorism

Grade Levels: 9-12

Time: 45-60 Minutes



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Objective

- Examine the sarin nerve gas attack in Japan as an example of the dangers associated with chemical weapons of mass destruction (WMDs).

Key Terms

- Aum Shinrikyo
- sarin nerve gas/liquid

Lesson Materials

- Reading: “Facts About Sarin” <http://emergency.cdc.gov/agent/sarin/basics/facts.asp>
- Sarin gas attack on the Tokyo subway (found at http://www.japan-101.com/culture/sarin_gas_attack_on_the_tokyo_su.htm)
- Victims of subway gas attack still suffer (found at http://www.factnet.org/cults/aum_shin_rikyo/nerve_gas_victims.htm)
- 1995: Aum Shinrikyo Tokyo Subway Gas Attack (found at <http://terrorism.about.com/od/originshistory/a/AumShinrikyo.htm>)

Lesson Background

Sarin is an extremely toxic substance whose sole application is as a nerve agent. As a chemical weapon, it is classified as a weapon of mass destruction by the United Nations. The Chemical Weapons Convention of 1993 outlawed production and stockpiling of sarin. It is estimated that sarin is more than 500 times more toxic than cyanide. The short-and long-term symptoms experienced by those affected include:

- | | |
|-----------------------------------|--|
| 1. coma | 10. loss of consciousness |
| 2. convulsions | 11. loss of memory |
| 3. death | 12. nausea and vomiting |
| 4. difficulty breathing | 13. paralysis |
| 5. disturbed sleep and nightmares | 14. post-traumatic stress disorder |
| 6. extreme sensitivity to light | 15. respiratory problems |
| 7. foaming at the mouth | 16. seizures |
| 8. high fevers | 17. uncontrollable trembling |
| 9. influenza-like symptoms | 18. vision problems, temporary & permanent |

Lesson Plan

- Read the Lesson Background to the students.

- Organize students into small groups and have them read the articles about the Sarin Nerve Agent Attacks.
- Then have the groups work together to answer the critical thinking questions on the Student Assignment: Sarin Nerve Agent Attacks: Chemical Weapons of Mass Destruction.

Evidence of Understanding

Evaluate students' responses during discussion and their written responses to the critical thinking questions.

Additional Activities and Resources

- Have the students research the anthrax attacks that occurred in the United States in September of 2001 when several elected officials and public figures received letters in the mail containing a suspicious white powder. Ask them to prepare a short 3–6 minute report for the class on the impact of the attacks and the response by officials, the media, and the general public to the anthrax threat. Explain the following:
 - What is anthrax?
 - Why is it such a frightening threat?
 - What was the government response to the postal workers who may have come into contact with the anthrax while processing and delivering the mail? What precautions were set in place?
 - What post offices were affected? What happened to those postal facilities?
 - How much time passed during the investigation before a person(s) was officially announced as the most likely person to have committed the crime?
 - How long did the primary postal facility contaminated remain closed? What happened to the workers? Were any other persons affected, injured, or killed by the anthrax?
 - What were the motives of the person accused?
 - Do you think that this was a case of terrorism? Justify your response.
- Have students research the following:
 - What are botulin and cholera? Why are they so frightening?
 - Have these biological weapons ever been used in war and/or violent conflict?
 - Investigate the history of these biological agents and identify any instances of natural or human induced outbreaks of either or both diseases including dates, locations, the number of people that fell ill or died, public reactions, and so on.
- Have students research and read about the mass suicide/murder at the “People’s Temple Agricultural Project” (known as Jonestown), Guyana in 1978. Ask them to answer the following questions:
 - Explain the origins and nature of the People’s Temple. Where did it begin? How did it expand? Why did it leave the United States and move to Guyana? What were its beliefs?
 - What was life like in Jonestown for the people?
 - Why did the leaders decide to instigate a “mass suicide?”
 - Why did the members of the group participate in the suicide/murder?

Taking Action and Giving Service

Have students investigate how schools in their community or their state responded to the anthrax scare.

- Ask the students to identify 3–5 articles on how schools dealt with the anthrax scare.
- Select one of the schools and contact the school (administration, school nurse, etc.) and request to interview someone about the response.
- Ask the students to develop 5–7 questions for the schools about:
 - how they informed students about anthrax,
 - how they communicated with parents,
 - specific procedures to put in place,
 - closures or changing school hours,
 - and if they have developed a protocol or procedures for such situations in the future.

Study Assignment

Unit III: Historical Context of Terrorism

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Name _____ Date _____

Period/Class _____

Sarin Nerve Agent Attacks: Chemical Weapons of Mass Destruction

DIRECTIONS: Discuss and answer the following critical thinking questions.

1. What is Aum Shinrikyo? Why did they launch the sarin nerve agent attacks in Tokyo in 1995? What beliefs motivated their founder and its members to institute such attacks against the general public?
2. Prior to the March 20, 1995 sarin nerve agent incident in the Tokyo subway system, had Aum Shinrikyo engaged in any other incidents involving chemical/biological weapons? Describe their actions.
3. What are some of the long-term effects of exposure to sarin? Identify the physical, psychological, and emotional effects. Describe “post traumatic stress.”
4. Does Aum Shinrikyo continue to exist today? If so, where and how large is it? Why?
5. Why are chemical and biological agents such as anthrax, cholera, botulin, sarin, etc. especially difficult security problems against which to find a defense? How does an individual, group, community, nation, government, etc. defend against such dangerous agents?