

The Living Weapon

Teacher's Guide

The film *The Living Weapon* and this companion Web site offer insights into topics in American history including military strategy, scientific discovery, issues in wrapping up the end of World War II and the beginnings of the Cold War, principles of pacifism, and the desire to keep government programs secret from the general public. You can use part or all of the film, or delve into the rich resources available on this Web site to learn more, either in a classroom or on your own.

The following activities are grouped into 4 categories:

- History
- Civics
- Science
- Ethics

You can also read a few [helpful hints](#) for completing the activities.

(<http://www.pbs.org/wgbh/americanexperience/weapon/teacherResources/6/>)

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The Living Weapon

History

1. Architects of "biowar"

How different – or similar – did the complex issues raised by biological weapons appear to the three men who played large roles in their countries' biological weapons programs:

[Paul Fildes in Britain](#)

(<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/6/>),

[Ira Baldwin in the United States](#)

(<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/4/>),

and [Shiro Ishii in Japan](#)

(<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/2/>)? Divide the class into four groups, three to represent each of the three individuals, and one to act as the interviewer. The interviewer group should prepare a series of questions for the three men, such as how they became involved in biological weapons research, why they thought it was important for their country to conduct this research at that time, what their work accomplished, and what limitations (if any) they would place on the actual use of biological weapons. The remaining three groups should then prepare answers for each of these questions.

When the groups are ready, use these materials to stage a mock interview between a single interviewer and students representing each of the three individuals. Imagine that the interview is taking place in 1945, shortly after the end of World War II.

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History

2. WMD (Weapons of Mass Destruction) on the big screen.

Fears related to **nuclear, chemical, and biological weapons**

(<http://www.pbs.org/wgbh/americanexperience/weapon/timeline/>)

have inspired many movies, including *Godzilla* (where the monster was created by a nuclear test) and other science-fiction classics. Working with a partner, find an example of such a movie, and present your choice to your teacher for approval. Once your selection has been approved, watch the film with your partner.

As you view the film, note the role of weapons of mass destruction in it – did they help create the problem, or are they used to fight it? Does the film directly or indirectly criticize governments for developing weapons of mass destruction? Does the film end on a hopeful or gloomy note regarding humanity’s future in a world where such weapons exist? Each team should present its findings briefly to the class. As the presentations are made, construct a timeline that lists each film and the year in which it was released. When all of the presentations are finished, look at the timeline as a class: Do you see any trends in films’ treatment of this topic, or any relationship between the films and world events that occurred at that time?

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Civics

1. Rejecting unconventional weapons?

President Nixon's 1969 decision to end the [U.S. biological weapons program](http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/7/) (<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/7/>) reflected several factors, including growing public opposition to the use of [napalm](http://www.pbs.org/wgbh/amex/twodays/peopleevents/e_napalm.html) (http://www.pbs.org/wgbh/amex/twodays/peopleevents/e_napalm.html) in [Vietnam](http://www.pbs.org/wgbh/amex/vietnam/) (<http://www.pbs.org/wgbh/amex/vietnam/>), and anticipated the controversies surrounding Agent Orange in that same conflict.

Divide the class into two groups; assign one group the topic of napalm and the other group the topic of Agent Orange. Have each group find at least six newspaper articles, magazine articles, or book excerpts that discuss its assigned topic; three of these should date from before President Nixon's decision to discontinue the U.S. biological weapons program, and three should date from after that decision. On the basis of this research, groups should explain to the class how napalm and Agent Orange were portrayed both in the 1960s and afterwards – as effective tools in war, or as dangerous and/or immoral to use.

After groups have made their presentations, discuss the following question as a class: Do you think that the examples of biological weapons, napalm, and Agent Orange suggest that the United States is becoming increasingly restrictive in the kinds of weapons and tactics it is willing to use in wartime?

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Civics

2. From sea to shining sea.

U.S. biological weapons were produced or [tested](http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/5/) (http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/5/) in a number of locations across the country. The U.S. nuclear weapons industry is even more extensive. As a class, conduct research to find out the major places where nuclear weapons are produced, tested, or stored, and mark these locations on a map. Then add the various locations of biological weapons sites to this map. Are any of the sites on your map in your state?

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Science

1. Investigating the “Amerithrax” case.

Among the issues discussed in these [interviews with experts on biological weapons](http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/8/) (<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/8/>) is the deadly anthrax mailings of 2001, which killed five Americans. As a class, find out about this case and where the investigation currently stands.

You may want to assign different groups of students to research specific questions, such as: What were the mailings and to whom were they addressed? Who was injured or killed? What is known about the person(s) who sent the mailings? Is there a possible connection between these acts and the September 11 terrorist attacks? What steps have been taken to guard against similar attacks in the future?

Have each group report on its findings to the class. Then assemble the findings into two lists: what is known, and what is not known, about the case. Close by discussing your own theories about what sorts of persons or groups might have committed these crimes, and why.

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Ethics

1. Victims of a WMD attack.

As a class, prepare an exhibit of accounts by people who experienced or witnessed attacks by weapons of mass destruction, such as soldiers who survived poison-gas attacks during [World War I](http://www.pbs.org/greatwar/) (<http://www.pbs.org/greatwar/>), Japanese survivors of the atomic bombings during World War II, or Kurds who were victims of Saddam Hussein's chemical-weapons attacks in the 1980s. Find brief quotations that describe what these attacks were like and the death and destruction they caused. Illustrate your exhibit with maps of the affected areas, a timeline of WMD attacks, and/or photographs.

When you are done, view the exhibit as a class and discuss whether this activity has affected your personal views regarding whether the use of weapons of mass destruction could ever be justified. In your view, are some weapons so terrible they should never be used under any circumstances, or are there situations (such as self-defense) under which any weapon could be considered acceptable? Use examples from your exhibit to support your views.

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Ethics

2. Testing in secret.

Not until 1977 did Americans learn that the U.S. government had conducted **secret tests** (<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/5/>) in various locations across the country during prior decades to determine the country's vulnerability to biological attack. How might Americans have reacted if information about the tests had leaked out when they were being conducted?

Have each student choose one of the following years in which tests were conducted: 1949, 1950, 1953, 1957, 1965, or 1966. Each student should find out about key events that occurred in the United States or abroad during his or her chosen year and that might have influenced Americans' attitudes toward the testing. Then have each student write two letters to the editor – one expressing support for the testing, one expressing opposition to it – in the context of those “recent” events.

Have volunteers read their letters aloud to the class. Did the arguments for and against the testing vary much from year to year? Do students think that the American public would have demanded a halt to the testing if the tests had become public during one of these years?

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Hints for the Active Learning Questions

History

1. Students should understand that because these issues were highly classified, no such interview would have been made available to the public at the time.

The group representing Ira Baldwin should consult transcripts of [his account](http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/10/) (<http://www.pbs.org/wgbh/americanexperience/weapon/storyHighlights/10/>) of the U.S. program.

2. Teachers should make sure that students' choices are age-appropriate.

The timeline portion of the activity will be more meaningful if the teams' choices date from several different decades. Film possibilities include: for biological weapons, *The Andromeda Strain* and *The Omega Man*; for nuclear weapons, *Them!* and *Dr. Strangelove or How I Learned to Stop Worrying and Love the Bomb*; for chemical weapons, *Jacob's Ladder* and *The Rock*.

To explore further the issue of fears regarding weapons of mass destruction, students may want to take this government-sponsored "panic quiz" published in the 1950s, when anxiety regarding nuclear weapons was high.

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Civics

1. For example, the New York Times ran articles on Agent Orange on September 21, 1966 and on napalm on December 10, 1967.

2. Among the sources of information on U.S. nuclear weapons sites are this report by the [Natural Resources Defense Council](#) (see Appendix B) (<http://www.nrdc.org/nuclear/tkstock/p53-94.pdf>) and this web page from [GlobalSecurity.org](#). (<http://www.globalsecurity.org/wmd/facility/index.html>)

Science

1. A good place to begin your investigation is the [FBI's web page on the case](#) (<http://www.fbi.gov/anthrax/amerithraxlinks.htm>).

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Ethics

1. You may want to start this activity by asking a volunteer to read aloud Wilfred Owen's poem "Dulce Et Decorum Est," (http://www.pbs.org/greatwar/chapters/ch4_voices2.html) about a poison-gas attack during World War I.

2. To help students understand how external events can influence public attitudes toward secret testing (or any other government policy), you might begin with a class discussion of hypothetical examples from a more recent time period.

For example, suppose the secret testing had still been going on in 1979, the year of the [nuclear accident at Three-Mile Island](http://www.pbs.org/wgbh/amex/three/) (<http://www.pbs.org/wgbh/amex/three/>), and that word of the tests had then leaked. Do you think the fear of nuclear contamination would have led many Americans to oppose the tests as potentially dangerous to their health? In contrast, if the testing had still been going on in 2002, shortly after the [September 11 terrorist attacks](http://www.pbs.org/wgbh/amex/newyork/peoplevents/e_wtc.html), (http://www.pbs.org/wgbh/amex/newyork/peoplevents/e_wtc.html) do you think the fear of terrorist attack would have led many Americans to support the tests as necessary for homeland security?

As a follow-up activity, you might want to have the class find out how Americans reacted when the tests became public in 1977. Was the public reaction in 1977 very different than it would have been if the tests had been made public years or decades earlier?

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