

The Silent Spring of Rachel Carson

Introduction

This lesson examines the call to arms sounded in the early 1960s concerning the harmful consequences of pesticides to the balance of nature. The focus is on an episode of the PBS series, *The American Experience: The Silent Spring of Rachel Carson*. The television program describes the circumstances surrounding *Silent Spring*, and discusses why Carson wrote the book, the main ideas in the book, and the positive and negative responses to it.

Time

There should be time for the students to read and discuss a nine-page introduction/synopsis about *Silent Spring* in *Books That Changed America* by Robert Downs. Time is also needed for viewing the 55 minute-long T.V. episode, *The Silent Spring of Rachel Carson*. After viewing the video, time is needed for a debriefing session to discuss the highlights and the issues raised in the video and readings.

Materials

1. A copy of the videotape and a VCR.
2. Student copies of the chapter from *Books That Changed America*.
3. Student copies of the study guide for the video.

Objectives

1. The student will describe how *Silent Spring* changed Americans' lives and how they thought about nature.
2. The student will explain why pesticides such as DDT were developed during World War II.
3. The student will describe how new chemical insecticides and pesticides were used after World War II.
4. The student will list the other nature and science books Rachel Carson wrote.
5. The student will describe the reasons that compelled Rachel Carson to write *Silent Spring*.
6. The student will describe the relationship Carson documented in her book between widespread uses of pesticides and the deleterious unintended consequences of their uses.
7. The student will explain who Carson's opponents and critics

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Rachel Carson, 1951, author of *The Silent Spring* (1962).

8. The student will describe several consequences of *Silent Spring* concerning how Americans thought about their environments and ecology, and what actions Americans thought could be taken to protect themselves and nature.
9. The student will explain how Rachel Carson prepared to be a scientist, and how being a woman created disadvantages for

her as a scientist during the times in which she lived.

Procedure

First, have the students read chapter 25, "Upsetting the Balance of Nature," in *Books That Changed America*. Then have the students complete the questions in the reading for "Upsetting the Balance of Nature: Rachel Carson's *Silent Spring*," and follow with a discussion of the main ideas in the chapter.

Second, show the videotape. Then have the students discuss their responses to the questions on the study guide. As part of the discussion ask the students what changes they are aware of in pest and insect control that have been made as a consequence of *Silent Spring*. Ask the students how the environment today might be different if the issues brought up by *Silent Spring* had not been made public.

Assessment

1. Have the students write a summary of *Silent Spring*.
2. Have the students write a letter to Rachel Carson expressing their reaction to her book.
3. Have the students write a letter to a newspaper from the vantage point of 1963 reacting to the book.
4. Have the students draw an editorial cartoon expressing an attitude toward the book.
5. Have the students create a poster showing scenes depicting an area where DDT was used compared with an area after DDT was banned.
6. Have the students select an environmental issue that exists today to do any of the above activities.
7. Have the students take a quiz on the factual content of the film.

Suggestions for using the Study Guide and other materials for *Silent Spring*.

When dealing with the study guide, students should be encouraged to use the information from the video as well as that in the Down's article. Teachers may find useful information in some of the listed reference books.

The following information for the study guide is meant to be suggestive of possible answers and is not meant to be exhaustive. There may be additional information that fits any or all of the times on the study guide. This is merely a starting point.

1. Rachel Carson had an interest in nature and science as young girl; she studied biology in college as an undergraduate; she earned a master's degree in zoology.
2. She wrote *The Edge of the Sea* and *The Sea Around Us* before writing *Silent Spring*. She was a best-selling author and was well established with a publishing company.
3. DDT was not a new chemical compound even by the time of WWII. It was used during the war to control pests that transmitted fatal diseases and helped to reduce by a substan-

tial amount the number of deaths by typhus. During earlier wars, one of the major killers was death by disease; DDT helped to reduce such deaths during WWII.

4. After WWII DDT was used as a pesticide to kill unwanted insects such as mosquitoes, beetles, and gnats; it also, along with other chemicals, began to be used extensively by farmers and foresters to protect various plants from insect and other pests.
5. Carson began to learn of numerous examples of irresponsible, widespread use of pesticides which not only killed insect pests, but all insects. It entered the food chain and killed birds, fish, and affected the human food chain in unhealthful ways. Chemicals were targeted at pests but harmed many other animals in the environment including humans.
6. Petro-chemical companies that manufactured the pesticides; the government also kept information from Carson about the effects of DDT on birds and fish; and some of the public would not believe what Carson had written.
7. After it was published, *Silent Spring* became a best-selling book; the public supported government activities to control pesticides.
8. Senator Abraham Ribicoff held hearings to determine what government action should be taken to regulate pesticides.
9. The public became more informed about the dangers of unwise use of pesticides; it began to be more interested in the health of the environment; it became aware of the interconnectedness of all things in the environment.
10. Rachel Carson died of cancer two years after *Silent Spring* was published. □

Suggested Resource Materials on Rachel Carson and *Silent Spring*

- Brooks, Paul. *The House of Life: Rachel Carson at Work*. Boston: Houghton Mifflin, 1972.
- Dunlap, Thomas R. *DDT: Scientists, Citizens and Public Policy*. Princeton: Princeton University Press, 1981.
- Gartner, Carol B. *Rachel Carson*. New York: Ungar, 1983.
- Graham, Frank. *Since Silent Spring*. Boston: Houghton Mifflin, 1970.
- Hynes, H. Patricia. *The Recurring Silent Spring*. New York: Pergamon, 1989.
- Marco, Gino, Robert Hollingworth, and William Durham, eds. *Silent Spring Revisited*. Washington, D.C.: American Chemical Society, 1987.
- McCay, Mary. *Rachel Carson*. New York: Twayne, 1983.
- Perkins, John H. *Insects, Experts, and the Insecticide Crisis*. New York: Plenum, 1982.

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Study Guide:

The Silent Spring of Rachel Carson

1. What steps did Rachel Carson take to prepare herself to be a scientist? What special obstacles did she have to overcome to do so?
2. What books in addition to *Silent Spring* did Rachel Carson write?
3. What benefits did DDT provide humanity during World War II?
4. What new uses were made of DDT after World War II?
5. What unwanted effects of DDT led Rachel Carson to write *Silent Spring*?
6. What organizations or groups worked to prevent the public from being informed about the dangers of pesticides like DDT? Why?
7. What evidence indicates how the public reacted to the publication of *Silent Spring*?
8. What happened immediately after PBS television broadcast a program on *Silent Spring*?
9. What were the consequences of *Silent Spring* on the environmental/ecology movement?
10. What happened to Rachel Carson within a few years of her success with *Silent Spring*?