

Earth Day: Rachel Carson and Silent Spring

In celebration of Earth Day on April 22, try this activity about the history of the environmental and conservation movement in the United States.

Ask students what the biggest environmental concerns are in our country today. Explain that environmental issues—such as pollution, deforestation, water usage and shortages, waste disposal, and offshore drilling—have created controversy for many years as people have disagreed on the severity of these problems and the actions that need to be taken. Such problems became the focus of an environmental movement that heated up in the 1970s and inspired the creation of the national Environmental Protection Agency (EPA). This movement was greatly influenced by Rachel Carson's environmental science book, *Silent Spring*, which was published in 1962. In the book Carson wrote about the importance of conserving, or protecting, the environment from hazards such as the use of pesticides. She especially focused on the pesticide DDT—the most powerful pesticide the world had known—and the damaging effects it had on the ecosystem, including animal life and human life. The book's title refers to the deaths of songbirds caused by the pesticide.

While Carson did not argue that pesticide use should stop entirely, she cautioned that the effect of pesticides on ecosystems should be carefully considered. She also warned that overuse of pesticides would lead to the evolution of pests that were resistant to pesticides. (Point out that this is a concern about the overuse of anti-bacterial soap and medical antibiotics in our day.) Rachel Carson gathered her information from the work of research scientists. She was among the first to bring to the attention of the public the possible link between substances such as pesticides and cancer in humans. Though Carson's book quickly came under attack by large chemical companies, her work was widely read and praised by many Americans, including scientists and government leaders. Many consider Carson to be the mother of or inspiration for the environmental movement in our country.

Here are some videos and online articles you may want to share with your class or use yourself to prepare for the activity:

Pesticides—DDT—Rachel Carson—Silent Spring (MSC in Environmental Technology; video)

<https://www.youtube.com/watch?v=IpbC-6IvMQI>

Rachel Carson's Silent Spring (PBS Learning Media; video)

<http://www.pbslearningmedia.org/resource/envh10.scilife.eco.silentspring/rachel-carsons-silent-spring/>

Rachel Carson's *Silent Spring*, a Book that Changed the World (Rachel Carson Center; see sequence of links)

<http://www.environmentandsociety.org/exhibitions/silent-spring/overview>

Rachel Carson—Silent Spring (National Academy of Engineering)

<http://www.onlineethics.org/cms/9147.aspx>

Rachel Carson and Silent Spring (Douglas Allchin; University of Minnesota SHIPS)

<http://www1.umn.edu/ships/db/carson.pdf>

Following the discussion, read a passage from *Silent Spring* as a class. (PDFs of the entire manuscript are available online, or you can search for “Silent Spring excerpts.”) Consider reading the quote by author E.B. White included at the front of the book and discussing its connection to Carson's message as well.

Once you have read and discussed excerpts from *Silent Spring* with your students, bring up the importance of environmental issues today. Assign students to find news articles posted online in the past year or two regarding current environmental issues. Have them present their news articles to the class and explain their relevance to environmentalism and society. You may want to make a list of topics first and divide them up, or it's possible most of the articles students bring in will be about climate change since that has been in the news a great deal lately. What other environmental topics are in the news? One example is whether EPA restrictions should be strengthened or weakened. Another is the conservation of endangered species. In what ways are these topics controversial? What disagreement exists about each topic, whether scientifically or politically? Why are environmentalists sometimes called “tree huggers” by their opponents? What political and socioeconomic opinions influence choices about environmental issues, and why? Why do business interests such as gas and oil companies often clash with conservationists? Discuss how to sort out science from politics. Why is it a good idea to make this distinction?

EXTENSION: Hold a class debate on an environmental issue. Have one side argue why the problem is harmful to the environment and needs to be stopped or better controlled. Have the other side argue why regulation is unnecessary and would damage businesses and society.